



Brussels, 26.2.2016  
SWD(2016) 77 final

**COMMISSION STAFF WORKING DOCUMENT**

**Country Report Ireland 2016**

**Including an In-Depth Review on the prevention  
and correction of macroeconomic imbalances**

**This document is a European Commission staff working document. It does not constitute the official position of the Commission, nor does it prejudice any such position.**

## CONTENTS

Executive summary	1
1. Scene setter: Economic situation and outlook	5
2. Imbalances, risks and adjustment issues	14
2.1 Indebtedness and deleveraging	14
2.2 Financial sector challenges	23
2.3 External sustainability	29
2.4 Property market developments	35
2.5 MIP assessment matrix	43
3. Additional structural issues	45
3.1 SME development and access to finance	45
3.2 Labour market, education, social policies and inclusive growth	51
3.3 Infrastructure needs	61
3.4 Taxation and fiscal frameworks	67
3.5 Healthcare	72
A. Overview Table	76
B. MIP scoreboard	81
C. Standard Tables	82

## LIST OF TABLES

1.1. Key economic, financial and social indicators - Ireland	13
2.1.1. Government contingent liabilities	22
2.5.1. MIP assessment matrix - Ireland (*)	43
B.1. The MIP scoreboard for Ireland	81
C.1. Financial market indicators	82
C.2. Labour market and social indicators - part A	82
C.3. Labour market and social indicators - part B	83
C.4. Structural policy and business environment indicators	84
C.5. Green growth	85

## LIST OF GRAPHS

1.1. Real GDP in Ireland and the euro area	5
--	---

1.2.	Economic growth and the labour market	5
1.3.	Earnings, confidence and retail sales	6
1.4.	Investment and its components	6
1.5.	International trade trends in pharmaceutical goods and computer services	7
1.6.	Property prices in Ireland	7
1.7.	Risk of poverty and social protection	9
2.1.1.	Private sector indebtedness	14
2.1.2.	Drivers of household debt to GDP ratio	15
2.1.3.	Corporate debt sustainability	17
2.1.4.	Household net worth	17
2.1.5.	Mortgage arrears and restructurings	18
2.1.6.	Contribution to change in gross government debt as % of GDP	19
2.1.7.	Composition of the gross government debt (end of December 2015)	19
2.1.8.	Average effective interest rates on government debt (2015)	20
2.1.9.	Evolution of the medium- and long-term debt maturity (end of year)	20
2.1.10.	Maturity profile of Ireland's long-term marketable and official debt (end of December 2015)	21
2.1.11.	Gross public debt stochastic projections (2015-2019)	21
2.2.1.	Domestic banks outstanding loans	23
2.2.2.	Net interest rate margins	24
2.2.3.	Domestic bank profitability	25
2.2.4.	NPLs in Ireland and the euro area	26
2.2.5.	NPLs in domestic banks by sector	27
2.3.1.	Current account balance	29
2.3.2.	Current account balance of the International Financial Services Centre	29
2.3.3.	Main exports by multinational enterprises	30
2.3.4.	Current account balance excluding the International Financial Services Centre	30
2.3.5.	Current account balance excluding redomiciled PLCs	31
2.3.6.	Current account balance revisions (Q3-2015 vs. Q4-2014)	32
2.3.7.	International investment position of the International Financial Services Centre	32
2.3.8.	Changes in the investment position of the International Financial Services Centre	33
2.3.9.	International investment position excluding the International Financial Services Centre	33
2.3.10.	Changes in the international investment position excluding the International Financial Services Centre	34
2.4.1.	House prices: valuation levels in 2014 and variations in Q2-2015	35
2.4.2.	House completions versus estimated housing demand	35
2.4.3.	Gross fixed capital in construction (2014)	36
2.4.4.	Index of employment and hourly earnings in construction	37
2.4.5.	Proportion of population renting and housing stock per capita	39
2.4.6.	Private residential rent index	40
2.4.7.	Respondents expecting residential property price increases over 1 and 3 years	41
3.1.1.	SME credit demand	46

3.1.2.	Interest rates on SME loans	46
3.1.3.	Purchases of inputs in Ireland by Irish indigenous and foreign firms (2010-2013)	48
3.2.1.	Activity, employment and unemployment rates	51
3.2.2.	Unemployment, youth unemployment, NEET and long-term unemployment rates	51
3.2.3.	Unemployment by duration	52
3.2.4.	Nominal unit labour costs	52
3.2.5.	Decomposition of the rate of change of ULC	52
3.2.6.	Nominal unit wage costs by sector	53
3.2.7.	Employment by sector, year on year changes	53
3.2.8.	Employment rate by educational attainment	54
3.2.9.	Unemployment rates by educational attainment	54
3.2.10.	Participation in adult learning	56
3.2.11.	At risk of poverty or social exclusion rate and its components	58
3.2.12.	At risk of poverty rate, age groups	59
3.3.1.	General government gross fixed capital formation	61
3.3.2.	General government gross fixed capital formation by sector	61
3.3.3.	Peak hour congestion index, top 20 cities	63
3.3.4.	Total general government expenditure on education (2010-2013 average)	65
3.4.1.	Tax revenue to GDP ratio, 2015	67
3.4.2.	Revenues from property taxes, 2014	69
3.4.3.	Changes to the expenditure ceilings (2012-2017)	70
3.4.4.	Breakdown of government expenditure allocations (2000 and 2015)	71
3.5.1.	Public healthcare expenditure, Ireland and comparators	72
3.5.2.	Healthcare budget overruns	72
3.5.3.	Age pyramid, 2013	75
3.5.4.	Age pyramid, 2060	75

## LIST OF BOXES

1.1.	Investment challenges	10
1.2.	Contribution of the EU budget to structural change in Ireland	12
2.1.1.	The impact of multinationals on the debt of non-financial corporations	16

## EXECUTIVE SUMMARY

This country report assesses Ireland's economy in the light of the European Commission's Annual Growth Survey published on 26 November 2015. The survey recommends three priorities for EU economic and social policy in 2016: re-launching investment; pursuing structural reforms to modernise Member States' economies; and responsible fiscal policies. At the same time, the Commission published the Alert Mechanism Report that initiated the fifth annual round of the macroeconomic imbalance procedure. The Alert Mechanism Report identified Ireland as warranting a further in-depth review.

**Ireland has experienced a remarkable economic rebound over the past two years.** Ireland was among the European countries most severely affected by the economic crisis when the real estate bubble burst in 2008 and domestic banks required government support. Output contracted by almost 8% between 2007 and 2009. A wide-ranging and ambitious series of reforms was started in late 2010 with the support of the EU-IMF programme of financial assistance. The strong ownership of the reforms by the Irish authorities and their successful implementation laid the ground for the ongoing recovery. They helped turn Ireland into the fastest growing economy in the European Union in 2014 and 2015. The reforms under the EU-IMF programme focused principally on financial sector repair and restoring fiscal sustainability, but also included a structural and competitiveness component.

**The strong rebound of the Irish economy that started in 2014 has broadened and gained further momentum.** While Ireland's quarterly national accounts are volatile, the recorded strength of the rebound has exceeded even the most optimistic expectations. Real GDP growth is projected at close to 7% in 2015. Initially driven by exports, the recovery has become broad-based and is now fuelled by private investment and consumption, in addition to being spread across most sectors.

**The recovery has been job-rich and has supported the economic rebalancing process.** Full-time job creation has been sustained across sectors and regions. This has led to a fall in the unemployment rate to less than 9% and a reduction in long-term and youth unemployment. Rising output and corporate profits have translated

into stronger than expected tax revenues, mainly through surging corporate income tax receipts, and have helped overachieve nominal fiscal targets. Regained competitiveness and strong export growth have turned the current account into significant surplus. Finally, the strong macroeconomic environment facilitated the deleveraging process and helped banks return to profitability.

**The main challenge for Ireland is to ensure durable and balanced growth in the future.** The high headline real GDP growth figures of the past two years probably overestimate the underlying strength of the recovery. The very large share of multinational companies in value-addition, employment and exports exposes the Irish economy to significant cyclical swings and to various types of external shocks. It also makes international cost and non-cost competitiveness a critical issue for the economy. In turn, small and medium-sized enterprises (SMEs) continue to face development challenges, even though they are now also benefiting from and driving the recovery. Given the currently very high growth context, the main challenge consists in promoting durable and balanced growth in the future. This encompasses better managing the volatility inherent to a small open economy through appropriate and prudent macroeconomic policies. It also comprises fostering sustained tangible and intangible investment by the private sector, both SMEs and multinational companies. The extent to which public investment in infrastructure is adequate to support private investment and the delivery of services has also returned to the forefront of policy issues after years of contracting government investment.

**Remaining legacy issues nevertheless continue to attract policy attention.** Ireland experienced three years of reforms under the EU-IMF programme and two years of very high real GDP growth. Yet, this has not been sufficient to address all the legacy issues from the crisis, including in particular in terms of private and public debt, and financial sector repair. These issues continue to represent vulnerabilities and imbalances that affect the economy, hinder Ireland's investment potential and pose challenges to macroeconomic policy making.

**Overall, Ireland has made some progress in addressing the 2015 country-specific recommendations.** In the fiscal area, the general government deficit is expected to be well below 3% of GDP in 2015 and to reduce further in 2016 and 2017. Domestic expenditure ceilings continue to be revised and efforts to broaden the tax base have been limited. Some progress has been made in the healthcare area, but cost-effectiveness remains an issue. Some progress has been made in labour market and social policies, including through measures adopted in the 2016 budget. Some progress has been achieved in the financial sector area as sustainable solutions to mortgage arrears are implemented, but the establishment of a central credit register has been pushed back further.

Regarding progress in reaching the national targets under the Europe 2020 strategy, Ireland is performing well in relation to the employment rate and early school leaving targets. More effort is needed in R&D investment, reducing greenhouse gas emissions, increasing the share of renewable energy, improving energy efficiency, reducing poverty and attaining the extremely ambitious tertiary education goal.

The main findings of the in-depth review contained in this report, and the related policy challenges, are the following:

- **Active deleveraging by companies has continued during the past year.** The process has been aided by the economic recovery, which has resulted in increased earnings and corporate profits. The fall in debt ratios has also benefited from the surge in nominal GDP. Overall, corporate indebtedness remains high, but this is partly driven by the large multinational corporate sector, whose debt entail lower risks to the domestic economy. Irish firms have entered a recovery phase even though some companies continue to face deleveraging needs.
- **Households have also reduced their debt, though many still face further deleveraging needs.** Households are typically even more advanced than firms in the deleveraging process. However, those that borrowed heavily during the housing market bubble need to deleverage further. While the balance of mortgage accounts in arrears has declined, long-term arrears account for almost two thirds of the total balance. Access to collateral is still difficult while personal insolvency and bankruptcy schemes are relatively little used. Overall, the private sector debt ratio – including companies and households – has declined significantly.
- **The gross government debt ratio has fallen markedly.** The ratio is projected to be below 100% of GDP in 2015. While technical factors underpinned the fall in the ratio in 2014, the surge in nominal GDP and its budgetary impact provided the main push in 2015. Government debt has an average maturity of about 13 years and carries low interest rates. In addition, plans to sell government-owned shares in domestic banks should further reduce debt.
- **Vulnerabilities persist as the debt ratio remains high.** The baseline scenario of the debt sustainability analysis points to a persistent decline in the debt ratio until the projected effects of ageing kick in in the second half of the next decade. However, Ireland's debt projections are sensitive to external and internal shocks and to possible deviations from the fiscal adjustment path.
- **Financial sector vulnerabilities continue to decline.** The restructuring of domestic banks is nearing completion and significant reductions in government ownership in the sector are imminent. Profitability continues to recover but remains weak. Capital positions are sound but challenges remain as banks adapt to the gradual phase-in of prudential requirements.
- **Non-performing loans fell further with the recovery, but the ratio remains among the highest in the euro area.** Resolution mechanisms for mortgage and commercial loan arrears remain lengthy and complex. The high rate of long-term mortgage arrears points to remaining difficulties in dealing with the most distressed debtors. The establishment of a functional central credit registry to support prudent lending practices in the future has been a difficult process and has been pushed back again.

- **External accounts have strengthened further.** While the headline figure is inflated by specific factors, the current account is firmly in surplus. Net external liabilities have fallen by 60 percentage points from their peak in 2012 to about 80 % of forecast GDP by Q3-2015.
- **Demand for new housing exceeds supply by a wide margin in main urban areas.** As a result, residential property prices and rents in urban areas increased sharply in 2014, before slowing again in 2015. There is currently no evidence of overvaluation, but constraints limiting the construction sector and the supply of housing could generate risks of imbalances if they are not resolved. These constraints are indeed being addressed but the extent to which announced measures will be effective and free of adverse unintended effects will need to be monitored.

concerns persist about inactivity traps for certain households, the high proportion of people living in households with very low work intensity, child poverty and the lack of access to affordable, full time and quality childcare.

Other key economic issues analysed in this report that point to particular challenges for Ireland are the following:

- **Conditions for SMEs are improving, though access to finance remains challenging for some.** SMEs report higher investment, turnover, profits and job creation. In turn, domestic banks report a modest pick-up in credit demand and lending. However, internal sources of finance remain heavily used. The concentrated lending market, coupled with higher credit risk, also results in higher interest rates than the euro area average. In addition, SMEs still rely heavily on bank loans and have limited access to non-bank financing sources. Meanwhile the use of public financing initiatives for SMEs is improving, but remains suboptimal.
- **Unemployment has fallen below the EU average but long-term unemployment and the low work intensity of households remain of concern.** Skills mismatches remain and skills shortages have intensified in certain areas. Upskilling and reskilling opportunities remain insufficient. Overall, the welfare system has worked well to contain the effects of the crisis on poverty and inequality, but barriers to inclusive growth remain. In particular,

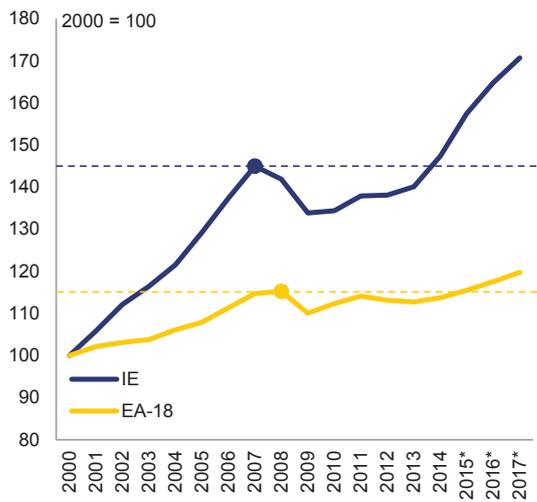
- **Infrastructure needs have returned to the forefront as attention shifts to ensuring durable and balanced growth in the future.** Seven years of sharply reduced government investment have taken a toll on the quality and adequacy of infrastructure and on support for intangible investments. This includes weaknesses in housing, water, public transport and climate change mitigation capacity.
- **Multiannual government expenditure ceilings continue to be revised frequently.** These ceilings aim to safeguard against procyclical fiscal policies and facilitate medium-term planning of budgetary priorities. However, they have been revised upwards systematically since their introduction. The government has exercised considerable discretion in the wake of higher than expected economic growth.
- **Cost-effectiveness, equal access and sustainability remain critical challenges to the healthcare system.** Significant uncertainty surrounds the broad reform of the healthcare system as the universal health insurance model is in quandary. Specific strands of reforms are progressing, but financial management and information systems remain weak, unequal access endures as an issue and spending on pharmaceuticals continues to weigh on cost effectiveness.

# 1. SCENE SETTER: ECONOMIC SITUATION AND OUTLOOK

## Growth and jobs

**The vigorous recovery that began in 2014 has widened and accelerated further.** The economy reached a turning point in 2014 with real GDP growing more than 5% (graph 1.1). Ireland's volatile quarterly national accounts make the precise measurement of growth difficult but the strength of the rebound exceeded even the most optimistic expectations, with growth surging to 7% in the first nine months of 2015 compared with the same period in 2014. Initially driven by exports, the recovery has become broad-based and is now well anchored on domestic demand and spread across most sectors. Growth is expected to ease somewhat this year, even though it should remain at more than twice the euro area average.

Graph 1.1: Real GDP in Ireland and the euro area



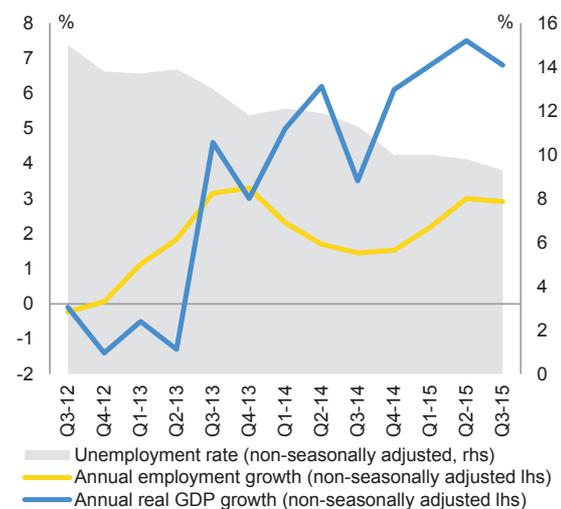
(\*) Forecast

Source: European Commission

**The recovery has been accompanied by strong job creation in most sectors.** Economic growth has led to sustained job creation across sectors and regions, even though the pace has slowed somewhat since 2013 (graph 1.2). In addition, most jobs created since 2014 have been full time positions. In the first nine months of 2015, employment grew by over 56 000 or close to 3% of the active labour population. A total of 133 700 jobs have been added since the low point in early 2012. This took the unemployment rate below 9% in December 2015, compared with close to 15% in 2011-2012 and below the euro area average.

Similarly, long-term and youth unemployment have continued to fall, even though they remain high at over 50% and 20% of total unemployment, respectively.

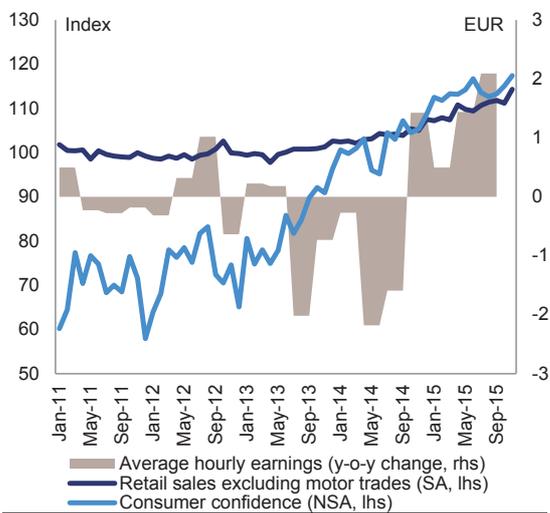
Graph 1.2: Economic growth and the labour market



Source: European Commission

**More jobs and rising earnings have supported confidence and consumption.** As from 2014, private sector employees have benefited from moderate wage increases, although with big differences across sectors and professions. In the public sector, previous wage cuts will be partially reversed in 2016. Yet, given the still high unemployment rate, there is no indication of wage pressures beyond productivity gains at this stage, nor is there any evidence of slowing wage growth. In turn, earnings growth has promoted the much awaited recovery in private consumption (graph 1.3). Retail sales were lifted by record consumer confidence, pent-up demand for durable goods and low energy prices. Consumption of services remains subdued but demand is expected to grow with a gradual switch away from durable goods. Indebtedness continues to weigh on some households but the country appears to have turned a corner as regards the impact of deleveraging on consumption. Households have been reducing their savings and increasing consumption without significant consumer credit expansion.

Graph 1.3: Earnings, confidence and retail sales



Source: European Commission

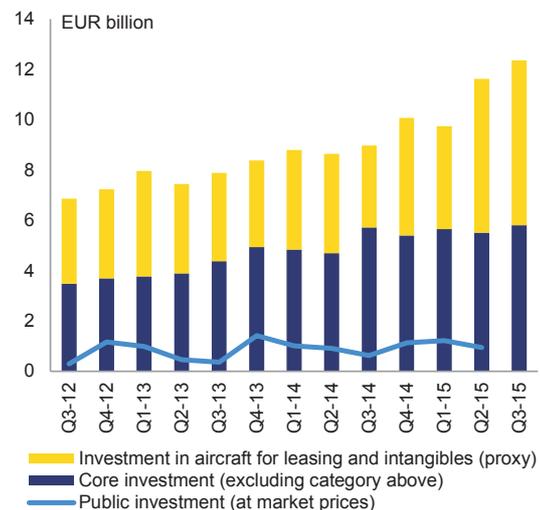
**Labour market participation is yet to pick up and recover to pre-crisis levels.** Despite the strength of the economic recovery and job creation, labour market participation has not yet risen significantly and inward migration remains moderate — although these tend to pick up only with some delay. Migration inflows are recovering while outflows remain strong. The country is still experiencing small net outflows and those leaving tend to have a job in Ireland and higher education, which suggests a shift compared to previous patterns. At the same time, natural population growth will be quite strong this year and next. This intertwines with the emerging capacity constraints in housing or infrastructure, which could either become more acute in the case of a fast return to strong inward migration or they could inhibit or delay such a return.

### Investment and exports

**Strong investment in the private sector reflects both domestic and international confidence in Ireland.** Investment (gross fixed capital formation) is playing a central role in the Irish recovery. Gross fixed capital formation is very volatile in Ireland due to the purchases of aircraft by leasing companies and major cross-border transfers of intellectual property by multinationals (box 1.1). Yet, excluding these two elements, investment grew by approximately 11.7 % year on year in the first nine months of 2015 (graph 1.4). Ireland's

attractiveness as an investment destination also remains strong, with net foreign direct investment inflows in the first nine months of 2015 roughly 20 % up year on year. Financial investments into the Irish property sector have also been very robust. This should contribute to the development of new construction projects but has also made the sector more vulnerable to shifting conditions in international financial markets. Despite increasing demand, the number of housing construction projects commenced remains low, which has prompted the government to pursue a series of measures to stimulate the sector (section 2.4).

Graph 1.4: Investment and its components

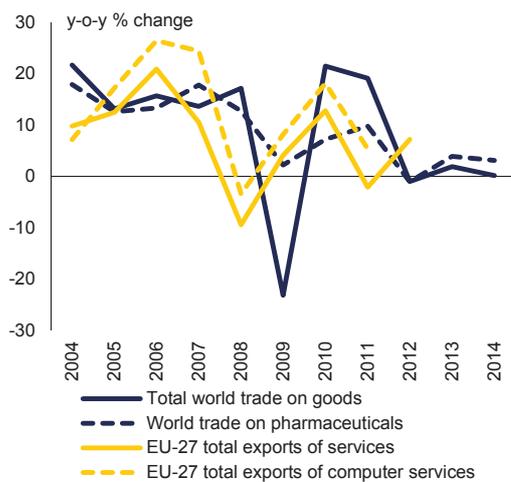


Source: European Commission

**The strong export performance has been driven by indigenous companies and multinationals alike.** Ireland is benefiting from its specialisation in pharmaceuticals and information technology services, led by multinationals established in the country. The share of these sectors in global trade has been expanding in recent years, driving Ireland's export performance above the total demand for imports of its trading partners (graph 1.5). In addition, Ireland has also been gaining market share in these segments. However, Ireland's export performance cannot be attributed only to multinationals. Goods exports in sectors dominated by indigenous companies account for about 40 % of the total and increased by 10.3 % in the first nine months of 2015 compared with the same period in 2014. These are typically small and medium enterprises that have regained

competitiveness and benefit from the weak euro when selling to the US and the UK. For multinationals, rising good exports have been matched by similar increases in goods and services imports.

Graph 1.5: **International trade trends in pharmaceutical goods and computer services**



Source: World Trade Organisation, Organisation for Economic Co-operation and Development, European Commission

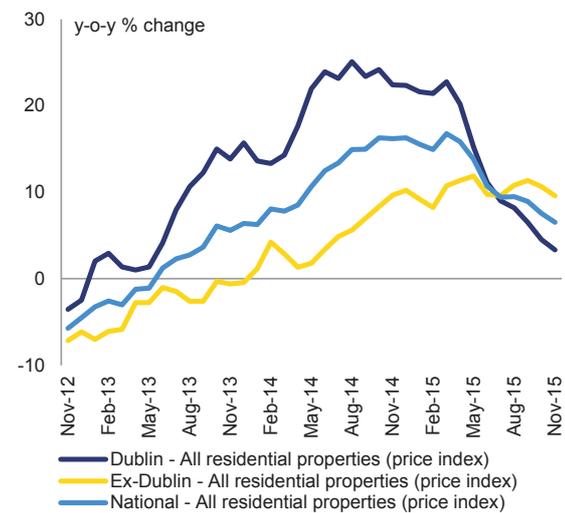
### Price developments

**In nominal terms, the recovery has been even stronger as a result of gains in the terms of trade.** Nominal GDP growth was expected to be close to 11 % in 2015, compared with 7 % in real terms. This significant difference results from an exceptional improvement in the terms of trade (the ratio of export prices to import prices) that benefited Ireland last year, due to the weak euro and price developments in key imports and exports. Multinationals established in Ireland typically price their goods and services in US dollars while indigenous companies price many of their exports in British pounds. This improvement in terms of trade has boosted corporate profits, as well as their capacity to invest and expand.

**Consumer price inflation has been muted while property prices continued to rise.** Consumer price inflation remained subdued in 2015. Falling energy prices had a big impact in Ireland given its reliance on imported fuels. In contrast, services prices increased more significantly. In 2016 and 2017, consumer price inflation is expected to rise

gradually, broadly in line with expectations for the rest of the euro area, helped by expected wage increases in the private and public sectors. As for house prices, increases in Dublin slowed in 2015 following double digit growth in 2014, albeit from a low basis. The recovery in house prices outside Dublin continued, despite the introduction of macro-prudential policy measures. The level of house prices nevertheless remains well below the pre-crisis peak and the level of transactions continues to be modest (graph 1.6). Rents have also increased substantially amidst the insufficient supply of accommodation in Dublin, raising concerns of affordability.

Graph 1.6: **Property prices in Ireland**



Source: Central Statistics Office

### Financial sector

**Banks are on a stronger footing, allowing the government to plan divestments but challenges remain.** Profitability indicators for domestic banks have been improving due to a continued widening of profit margins on new lending. Nevertheless, profitability still suffers from the high volume of impaired loans, difficulties with accessing collateral and the large stock of low yielding loans. Irish banks meet the regulatory capital requirements currently applicable. However, these requirements are due to tighten, demanding Irish banks to make additional efforts. Deposits are increasing and deleveraging continues, meaning that Irish banks continue to downsize by moving towards higher loan to deposit ratios. Overall, the

much improved situation allows the government to plan the disposal of some of its holdings in banks in the course of 2016. Investor interest is believed to be high and the government has indicated that it plans to use the proceeds to reduce the still very high level of public debt.

**Non-performing loans are declining but remain a concern.** On the back of the strong economic recovery and active restructuring, the ratio of non-performing loans came down by more than seven percentage points since the end of 2013. The volume of these loans still represents over 20 % of GDP, compared with less than half this rate for the euro area, and weighs on the capacity of banks to support the recovery with more favourable lending rates. The overall balance of mortgages in arrears continues its downward trend and those in arrears for more than two years fell for the first time in the third quarter of 2015, yet represent close to two thirds of the overall stock of mortgages in arrears. Buy to let mortgages are in arrears twice more often as primary dwelling mortgages.

**Early signs of renewed lending suggest that the recovery could be entering a new phase.** As the long process of deleveraging continues, loan repayments still outpace new borrowing. However, new lending increased somewhat last year for the first time since the crisis. Though this increase is only just beginning and comes from low levels, it points to the next phase in the economic recovery. The proximity of a sustained credit expansion remains uncertain as high interest rates for new loans coexist with continued muted demand from businesses. On the one hand, Irish businesses are benefiting from improved trading conditions and operating profits that they can re-invest without recourse to new credit. On the other hand, Irish banks still charge much higher interest rates than the euro area average. As Irish banks start to grow their business and expand their loan books, interest rates are expected to come down, enticing Irish business to target more ambitious expansion.

### Public finances

**Tax cuts and expenditure increases in 2015 and 2016 provide extra stimulus when economic growth is already strong.** Since 2011, Ireland has consistently over-achieved its nominal fiscal targets under the Excessive Deficit Procedure, helped by a stronger than expected economic

recovery and lower than expected market rates. For 2015, the authorities expect the general government deficit to fall below 2 % of GDP from 3.9 % in 2014, despite substantial additional spending that was not initially budgeted. Similarly, the 2016 budget introduces tax cuts and expenditure increases amounting to 0.7 % of GDP, while targeting a further reduction in the deficit to 1.2 % of GDP. The government expects these tax and expenditure measures to have added to GDP growth in 2015 and also in 2016, at a time when the economy is expanding at a very strong pace.

**Public investment remains well below the euro area average despite growing needs.** The strength of the recovery has brought some planning and infrastructure bottlenecks more prominently to the fore (section 3.3). Tensions regarding housing supply in Dublin are coupled with traffic congestion and the relative inadequacy of the city's transport infrastructure, prompting concerns as to their negative impacts on the quality of life and competitiveness. Public investment under the Capital Spending Plan 2016-2021 is backloaded towards the end of the plan's duration, as the government has given preference to tax cuts and other expenditure increases at this time. In 2016, government investment is actually projected to contract by 1.4 % compared with 2015 levels.

**Tax revenues surged in 2015 but trends for 2016 and later years are uncertain.** Tax returns in 2015 benefited from the growth in jobs and consumer spending. Personal income tax and VAT receipts were up by about 7 % each compared with 2014. However, revenue outperformance was primarily driven by a surge in corporate income tax receipts, which were 50 % higher (1.1 % of GDP) than under budgetary plans. Preliminary indications suggest that this strong performance spreads across companies of different size and sector. However, other factors may be at play. In response to guidelines set out in the OECD's Base Erosion and Profit Shifting project, changes are expected in the relevant tax rules and anti-abuse measures applied by several countries and tax jurisdictions. Hence, at this stage, uncertainty remains regarding the future evolution of corporate tax receipts.

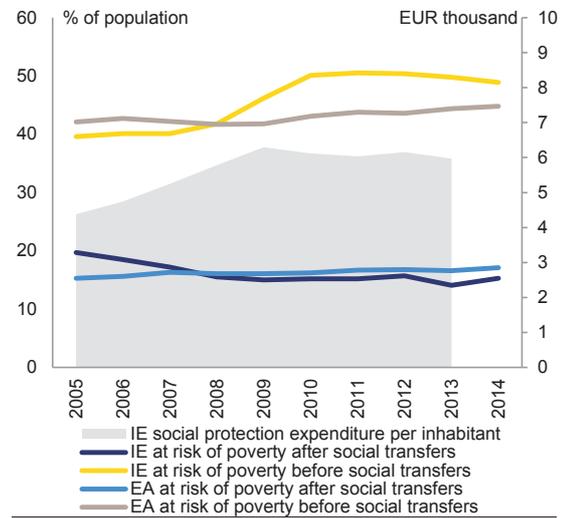
**The public debt structure and financing conditions have improved further.** In 2014 and 2015, Ireland issued several bonds with very long

maturities and used these to replace most of the IMF loans linked to the financial assistance programme, thereby achieving significant cost savings. Financing conditions for the state have continued to improve, on account of the macroeconomic rebound and the ECB’s unconventional monetary policy measures. Gross public debt is projected to have been below 100 % of GDP in 2015. Longer-term projections indicate that public debt could fall to 86 % by 2026.

**Social inclusion**

**Social protection expenditure offset the severe effects of the crisis and significantly reduced inequality.** Monetary poverty and income inequality after social transfers are today below pre-crisis levels and euro area averages. However, when taxes and social transfers are discounted, both indicators worsened dramatically after 2008 (graph 1.7). This illustrates the continued reliance on social protection expenditure to lift a significant proportion of the Irish population away from the risk of poverty (at 60 % of the national median disposable income). Per capita expenditure on social protection in Ireland had been well above the euro area until it converged in 2013. At the same time, low work intensity in certain households continues to drive up the risk of social exclusion, and severe material deprivation has deteriorated significantly since the crisis (section 3.2).

Graph 1.7: Risk of poverty and social protection



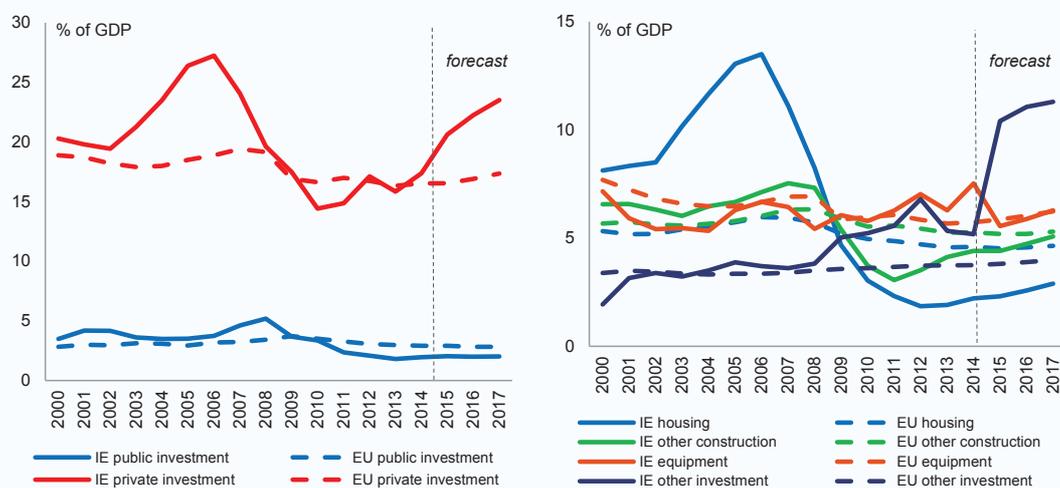
Source: European Commission

### Box 1.1: Investment challenges

#### Section 1. Macroeconomic perspective

**Investment fell sharply following the property market crisis.** Investment in construction collapsed from 20 % of GDP in 2006 to 5 % in 2011 and the banking crisis led to a breakdown of credit channels. Households, indigenous companies and government were left with high levels of debt. While investment by indigenous firms was severely hit, non-construction investment did not significantly contract, except in 2008. From then on, it actually expanded and reached 13 % of GDP in 2014, three percentage points higher than its pre-crisis peak. This investment growth was led by investment in intangible assets and transport equipment, largely explained by two factors: a surge in intellectual property transactions by some of the Irish affiliates of multinational enterprises; and the growth in purchases of aircraft by leasing companies.

Graph 1: Investment and its components as a share of GDP, Ireland and European Union



**Source:** European Commission. Forecasts for 2015-2017 based on a no-policy-change assumption.

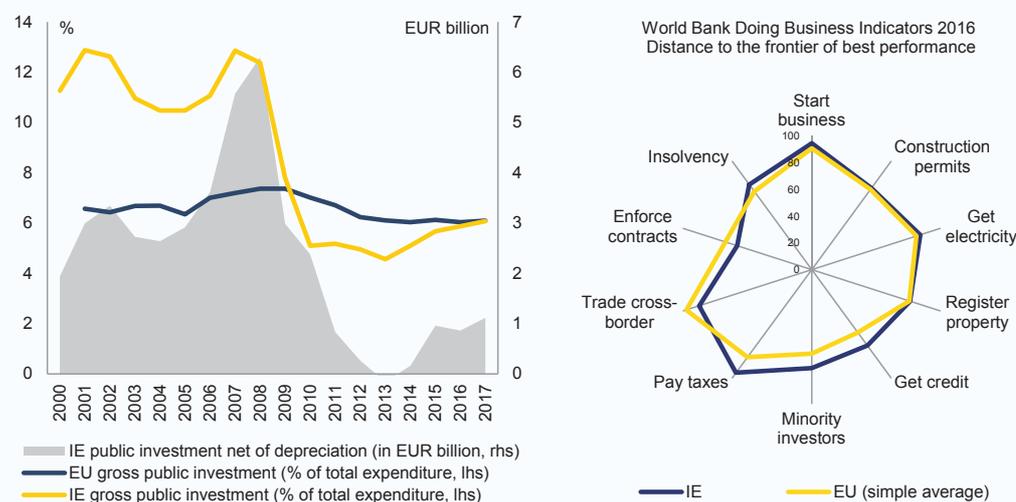
**Private investment has been one the main drivers of the recovery since 2013.** However, the volatility in intangibles and aircraft has made headline investment figures difficult to interpret. Core investment, which excludes intangibles and aircraft, is estimated to have grown by 22 % in 2013-2014 on average. If construction is excluded, core investment grew by 35 %. However, in nominal terms, core investment in 2014 only amounted to 50 % of its annual average in 2005-2007. During the first nine months of 2015, core investment grew by about 12 % y-o-y. The recovery in construction is taking longer than expected to materialise. It grew by 8.8 % in the first nine months of 2015, in spite of large unmet demand (section 2.4).

**Public investment in Ireland has contracted very significantly.** The government favoured cuts to capital expenditure over cuts to current expenditure, in order to maintain a high level of social protection. Public investment declined from 5 % of GDP in 2008 to 1.8 % in 2013. Since then, public investment has only increased marginally and the government is targeting only mild increases in investment in the Infrastructure and Capital Investment Plan 2016–2021. However, the current levels of capital expenditure in Ireland are barely sufficient to replace the existing stock of public capital. Net public investment (government gross fixed capital formation minus the consumption of fixed capital or depreciation) was negative or close to zero in 2012 to 2014 and is expected to recover only moderately in 2016 and 2017 to at most EUR 1 billion. Ireland is now witnessing the emergence of capacity constraints in public infrastructure (section 3.3).

(Continued on the next page)

Box (continued)

Graph 2: Public investment and ease of doing business, Ireland and European Union



Source: European Commission (Ameco and winter 2016 forecast) and World Bank

## Section 2. Assessment of barriers to investment and ongoing reforms

**Barriers to private investment in Ireland are moderate as confirmed by the European Commission assessment<sup>(1)</sup>.** The country is also recognised internationally for its friendly business environment. Ireland scores relatively high in most of the World Bank's Doing Business indicators. It ranks particularly well in terms of the ease to start a business, paying taxes and trading across-border. However, it ranks less favourably in terms of enforcing contracts, getting a construction permit or accessing credit.

**Financing conditions for SMEs are gradually improving but remain difficult.** Irish banks continue to apply interest rates on new loans that are among the highest in the euro area (section 3.1). Part of this differential is explained by the still high volume of non-performing loans and the difficulties in accessing collateral. A higher level of competition among lenders would contribute to an improved credit environment. The government has set up a number of initiatives to improve financing opportunities for small and medium firms. Although improving, take-up is sub-optimal and time will be needed to fully judge their effectiveness. However, their effectiveness is still uncertain given low credit demand overall. More transparency and less complexity should help to promote the use of these initiatives. Moreover, the introduction of a central credit register for firms would facilitate the assessment of credit risk by banks (section 2.2).

**Construction investment has also faced specific difficulties in Ireland after the collapse of the property market bubble.** Most developers went bankrupt after 2008 and financing conditions have become more stringent. The sector is taking longer than expected to recover and the supply response has been slow to materialise in spite of pent up demand for housing as a result of a number of constraints (section 2.4). In November 2015, the government announced a comprehensive package of measures to foster housing supply.

**The cost and length of judicial procedures is also a major concern for non-financial and financial firms,** including for those considering whether to start operations in Ireland. The reform of the legal profession has progressed very slowly in Parliament and its ambition has been tamed. Further reforms may be needed to make judicial procedures more efficient and expedient (section 3.1).

<sup>(1)</sup> [http://ec.europa.eu/europe2020/challenges-to-member-states-investment-environments/index\\_en.htm](http://ec.europa.eu/europe2020/challenges-to-member-states-investment-environments/index_en.htm)

**Box 1.2: Contribution of the EU Budget to structural change**

Ireland is a beneficiary of the European Structural and Investment Funds (ESIF) and can receive up to EUR 3.4 billion in the 2014-2020 programming period. This is equivalent to 10% of the expected national public investment in areas supported by the ESI funds.

With the exception of an action plan on the ex-ante conditionality on "monitoring and result indicators", to be complete before the end of 2016, all other reforms and strategies have been put in place in those areas to benefit from the Funds in order to fulfil the conditionalities and ensure successful investments.

ESIFs are directly contributing to the achievement of several Europe 2020 targets: R&D investments, reduction of greenhouse gases and the employment rate. Ireland's ESIF allocation is concentrated on addressing a number of key issues, including expanding national broadband network in remote areas, RTD, SME support, energy efficiency, activation of the unemployed, education and training, social inclusion and youth employment through a specific Youth Employment Initiative (YEI) allocation (measures financed through the European Social Fund). Regular monitoring of implementation includes reporting in mid-2017 on the contribution of the funds to Europe 2020 objectives and progress in addressing relevant structural reforms to maximise the use of EU financing.

Financing under the new European Fund for Strategic Investments (EFSI), Horizon 2020, the Connecting Europe Facility and other directly managed EU funds would be additional to the ESI Funds. Following the first rounds of calls for projects under the Connecting Europe Facility, Ireland has signed agreements for EUR 9 million in the energy field and EUR 58 million for transport projects. For more information on the use of ESIF in Ireland, see: <https://cohesiondata.ec.europa.eu/countries/IE>.

Table 1.1: Key economic, financial and social indicators - Ireland

	2003-2007	2008	2009	2010	2011	2012	2013	2014	forecast		
									2015	2016	2017
Real GDP (y-o-y)	5.3	-2.2	-5.6	0.4	2.6	0.2	1.4	5.2	6.9	4.5	3.5
Private consumption (y-o-y)	6.0	0.1	-5.7	0.2	-0.5	-1.0	0.1	2.1	3.3	2.5	2.0
Public consumption (y-o-y)	4.2	1.3	-2.6	-4.7	-2.2	-1.2	0.0	4.0	2.4	2.0	2.3
Gross fixed capital formation (y-o-y)	8.3	-11.5	-16.9	-15.5	3.2	8.6	-6.6	14.3	26.0	12.0	8.3
Exports of goods and services (y-o-y)	6.3	-0.1	-1.1	6.4	2.1	2.1	2.5	12.1	13.4	6.9	6.7
Imports of goods and services (y-o-y)	7.4	-2.7	-3.3	3.5	-1.5	2.9	0.0	14.7	16.0	7.7	7.5
Output gap	1.9	0.9	-4.5	-4.1	-2.2	-3.1	-3.4	-1.2	1.6	1.5	0.3
Potential growth (y-o-y)	4.7	1.6	-0.2	0.0	0.5	1.1	1.8	2.9	3.9	4.6	4.7
Contribution to GDP growth:											
Domestic demand (y-o-y)	5.2	-3.0	-7.4	-4.1	-0.1	0.8	-1.2	4.1	6.9	4.1	3.2
Inventories (y-o-y)	0.1	-0.6	-0.6	0.5	0.8	-0.3	0.3	0.5	0.0	0.0	0.0
Net exports (y-o-y)	0.0	1.9	1.6	3.2	3.5	-0.2	2.7	0.1	0.0	0.4	0.3
Contribution to potential GDP growth:											
Total Labour (hours) (y-o-y)	1.3	-0.4	-1.8	-1.5	-1.2	-0.7	0.1	0.6	0.9	1.3	1.3
Capital accumulation (y-o-y)	2.1	1.4	0.8	0.3	0.3	0.5	0.2	0.5	1.1	1.4	1.5
Total factor productivity (y-o-y)	1.3	0.5	0.8	1.2	1.4	1.3	1.4	1.8	1.9	1.9	1.8
Current account balance (% of GDP), balance of payments	-2.8	-5.8	-4.1	-0.8	-1.2	-1.5	3.1	3.6	3.6	3.7	3.1
Trade balance (% of GDP), balance of payments	11.3	8.6	13.5	16.0	18.0	17.2	19.3	18.3	.	.	.
Terms of trade of goods and services (y-o-y)	-1.1	-2.6	2.6	-1.5	-0.9	-1.4	0.1	-0.1	0.5	0.4	-0.2
Capital account balance (% of GDP)	0.2	0.1	0.0	0.1	0.1	0.0	0.1	0.1	.	.	.
Net international investment position (% of GDP)	-25.7	-87.4	-106.4	-103.2	-125.7	-129.9	-124.3	-104.7	.	.	.
Net marketable external debt (% of GDP) <sup>1</sup>	176.3*	117.0*	158.2*	247.0*	281.8*	324.8	322.3	412.9	.	.	.
Gross marketable external debt (% of GDP) <sup>1</sup>	545.1	852.2	902.3	885.2	828.2	782.0	665.9	658.1	.	.	.
Export performance vs. advanced countries (% change over 5 years)	-3.4	-7.3	10.5	0.6	-2.7	-6.4	0.8	-7.46	.	.	.
Export market share, goods and services (y-o-y)	-2.5	-7.2	18.7	-13.7	-9.0	-3.0	2.5	10.8	.	.	.
Net FDI flows (% of GDP)	7.1	12.9	0.4	-9.3	-10.2	-10.1	-6.7	4.8	.	.	.
Savings rate of households (net saving as percentage of net disposable income)	-0.7	3.9	9.4	6.4	3.6	3.5	1.0	-0.4	.	.	.
Private credit flow (consolidated, % of GDP)	26.2	22.3	-5.0	2.6	16.1	-0.7	-1.7	13.7	.	.	.
Private sector debt, consolidated (% of GDP)	169.8	236.6	256.5	259.3	273.2	279.8	267.8	263.4	.	.	.
of which household debt, consolidated (% of GDP)	80.7	108.1	116.7	111.3	102.7	99.3	93.8	83.8	.	.	.
of which non-financial corporate debt, consolidated (% of GDP)	89.2	128.5	139.8	148.0	170.5	180.5	174.0	179.6	.	.	.
Corporations, net lending (+) or net borrowing (-) (% of GDP)	3.0	3.8	4.0	29.7	11.8	6.0	9.5	8.2	6.9	6.7	6.3
Corporations, gross operating surplus (% of GDP)	34.8	29.8	31.9	36.4	39.2	39.7	39.5	38.7	40.1	40.1	39.8
Households, net lending (+) or net borrowing (-) (% of GDP)	-8.8	-3.8	2.8	2.4	1.1	1.2	-0.1	-0.9	-1.5	-1.9	-2.5
Deflated house price index (y-o-y)	8.4	-8.4	-13.2	-10.3	-15.4	-11.9	0.4	11.1	.	.	.
Residential investment (% of GDP)	11.9	8.2	4.7	3.0	2.3	1.8	1.9	2.2	.	.	.
GDP deflator (y-o-y)	2.3	-2.7	-4.3	-2.3	2.0	0.4	1.2	0.1	2.1	1.9	1.3
Harmonised index of consumer prices (HICP, y-o-y)	2.8	3.1	-1.7	-1.6	1.2	1.9	0.5	0.3	0.0	0.6	1.4
Nominal compensation per employee (y-o-y)	5.4	3.9	-1.1	-4.5	1.2	0.0	-0.7	1.8	3.2	2.1	2.2
Labour productivity (real, person employed, y-o-y)	1.4	-1.5	2.4	4.6	4.4	0.7	-0.9	3.4	.	.	.
Unit labour costs (ULC, whole economy, y-o-y)	4.0	5.6	-3.4	-8.7	-3.1	-0.8	0.2	-1.6	-1.2	-0.8	0.1
Real unit labour costs (y-o-y)	1.6	8.5	0.9	-6.6	-5.0	-1.1	-1.0	-1.7	-3.2	-2.6	-1.2
Real effective exchange rate (ULC, y-o-y)	4.8	6.5	-5.8	-11.7	-3.3	-6.2	2.2	-2.6	-8.0	-1.7	.
Real effective exchange rate (HICP, y-o-y)	3.1	3.5	-1.5	-7.1	-1.1	-4.3	1.5	-0.7	-6.5	0.4	-0.5
Tax wedge on labour for a single person earning the average wage (%)	22.0	19.0	21.3	21.8	18.9	17.9	18.7	20.5	.	.	.
Tax wedge on labour for a single person earning 50% of the average wage (%)	7.4*	4.6	6.2	6.2	2.9	2.8	2.8	3.9	.	.	.
Total Financial Sector Liabilities, non-consolidated (y-o-y)	21.2	5.7	3.9	6.9	-0.7	-1.2	-2.9	15.9	.	.	.
Tier 1 ratio (%) <sup>2</sup>	.	8.0	7.7	7.7	16.3	14.9	13.4	15.6	.	.	.
Return on equity (%) <sup>3</sup>	.	6.9	-68.8	-165.0	-15.5	-27.2	-11.3	7.1	.	.	.
Gross non-performing debt (% of total debt instruments and total loans and advances) (4)	.	0.0	.	.	.	16.6	18.4	16.3	.	.	.
Unemployment rate	4.5	6.4	12.0	13.9	14.7	14.7	13.1	11.3	9.4	8.5	7.8
Long-term unemployment rate (% of active population)	1.5	1.7	3.5	6.8	8.7	9.1	7.9	6.7	.	.	.
Youth unemployment rate (% of active population in the same age group)	8.8	13.3	24.0	27.6	29.1	30.4	26.8	23.9	20.6	.	.
Activity rate (15-64 year-olds)	70.4	72.1	70.6	69.4	69.2	69.2	69.8	69.8	.	.	.
People at-risk poverty or social exclusion (% total population)	24.1	23.7	25.7	27.3	29.4	30.0	29.5	27.4	.	.	.
Persons living in households with very low work intensity (% of total population aged below 60)	13.3	13.7	20.0	22.9	24.2	23.4	23.9	21.0	.	.	.
General government balance (% of GDP)	1.3	-7.0	-13.8	-32.3	-12.5	-8.0	-5.7	-3.9	-1.8	-1.3	-0.8
Tax-to-GDP ratio (%)	31.4	30.4	29.0	28.6	28.2	29.1	29.5	30.5	30.4	29.6	29.5
Structural budget balance (% of GDP)	.	.	.	-8.8	-7.5	-6.4	-4.3	-3.1	-2.6	-1.9	-0.9
General government gross debt (% of GDP)	26.3	42.4	61.8	86.8	109.3	120.2	120.0	107.5	98.4	93.9	91.5

(1) Sum of portfolio debt instruments, other investment and

(2,3) domestic banking groups and stand-alone banks.

(4) domestic banking groups and stand alone banks, foreign (EU and non-EU) controlled subsidiaries and foreign (EU and non-EU) controlled branches.

(\*) Indicates BPM5 and/or ESA95

Source: European Commission, winter forecast 2016; ECB

Source: European Commission, 2016 winter forecast and ECB

## 2. IMBALANCES, RISKS AND ADJUSTMENT ISSUES

This section provides the in-depth review required under the macroeconomic imbalances procedure (MIP) <sup>(1)</sup>. It focuses on the risks and vulnerabilities flagged in the Alert Mechanism Report 2016. The section analyses the reasons behind the still high private and public debt levels, significant negative net international investment position, high level of non-performing loans and recent house price developments. The section concludes with the MIP assessment matrix, which summarises the main findings.

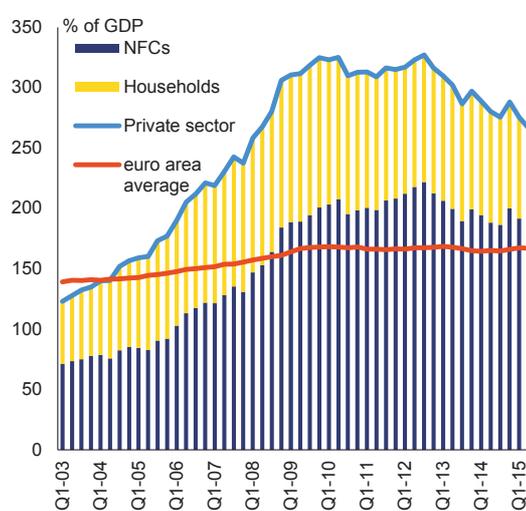
### 2.1 INDEBTEDNESS AND DELEVERAGING

#### Private sector debt and deleveraging

##### Private sector debt as a percentage of GDP continued to decline steadily over the past year.

At the end of June 2015, private sector non-consolidated debt represented 266.3 % of GDP, down 21.8 percentage points from the end of 2014 and 61 percentage points from a peak of 327.1 % of GDP in mid-2012 (graph 2.1.1). This compares with the euro area average of 166.9 % of GDP. Active deleveraging continues with the fall in debt ratios also supported by the strong economic rebound. However, the large build-up in the stock of debt between 2002 and 2012 by corporates (EUR 300 billion increase) and households (EUR 150 billion increase) means that debt levels remain very high in spite of the significant deleveraging achieved over the past few years.

Graph 2.1.1: Private sector indebtedness



(1) NFC - non-financial corporations

(2) Data are consolidated.

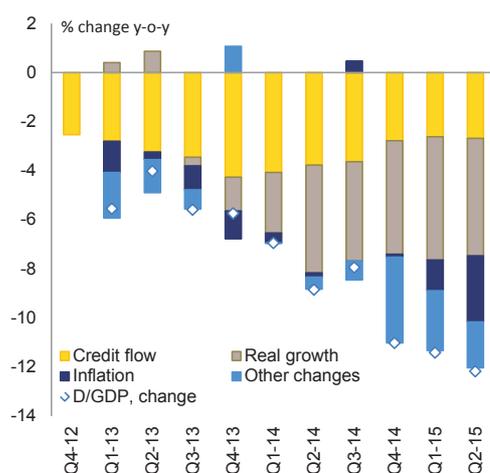
Source: Central Bank of Ireland, Central Statistics Office, Eurostat

<sup>(1)</sup> See Article 5 of Regulation (EU) No 1176/2011.

**High corporate debt levels are partly driven by the large multinational corporate sector.** The strong increase in the presence of multinational companies over the past decade has inflated corporate debt to GDP levels. Recently published data from the Central Statistics Office indicate that debt attributed to non-financial corporations with a foreign parent and to redomiciled companies accounts for about two thirds of the total corporate debt to GDP ratio (box 2.1.1). As a result, the debt to GDP ratio of Irish-owned firms was around 62 % of GDP in 2014. Irish affiliates of multinationals typically finance their operations on international capital markets and through intra-group cross-border lending. Most loan financing for resident corporates in fact comes from abroad. The share of multinationals in the overall debt ratio lowers deleveraging pressure as well as financial stability risk, as it reduces exposure and potential negative spillovers to domestic banks.

**Households have deleveraged faster than firms, and their debt reduction efforts started several years earlier.** In June 2015, the stock of household debt was 5.8 % lower than a year earlier. This decline represents an acceleration compared with the year on year change of minus 4.5 % for the June 2013 to June 2014 period. The household debt to GDP ratio fell 11.2 percentage points to 81 % in June 2015 compared with June 2014. The surge in GDP growth has greatly aided deleveraging efforts, both because of the resulting increase in employment and household income and through a ‘mechanical’ denominator effect on the ratio (graph 2.1.2). A higher number of employed persons per household, coupled with increased earnings (section 1) make debt repayments easier and faster.

Graph 2.1.2: Drivers of household debt to GDP ratio



Source: Eurostat

**Debt servicing costs remain a significant burden for households and firms.** Interest rates in Ireland remain higher than the euro area average for both mortgages and corporate credit. This is due to a concentrated lending market, higher credit risks of existing assets and the loss-making (pre-)crisis loan portfolio (section 2.2). For mortgage loans, the average floating interest rate was 3.2 % at the end of September, compared with the 2.1 % in the euro area.

**In spite of the remaining deleveraging needs for some companies, the Irish corporate sector has entered a recovery phase.** Deposits have been increasing since 2014, and new loan drawdowns

since early 2015, signalling an improvement in financing conditions across most sectors. Active deleveraging is nevertheless still ongoing. Overall, outstanding corporate credit held by domestic banks decreased by over 25 % in the period from June 2014 to June 2015. Looking at SMEs more specifically, outstanding credit fell 18.6 % in the year to June 2015.

**While nominal corporate debt levels remained broadly stable, the value of firms’ assets increased substantially.** The value of firms’ assets <sup>(2)</sup> increased by a remarkable 32 % in the period from mid-2014 to mid-2015 (graph 2.1.3), mostly on the back of a strong recovery in real estate prices (section 2.4).

<sup>(2)</sup> Corporate assets are measured by using their total liabilities as a proxy for the total market value of assets in line with accounting principles, due to the limited availability of aggregate data on non-financial assets.

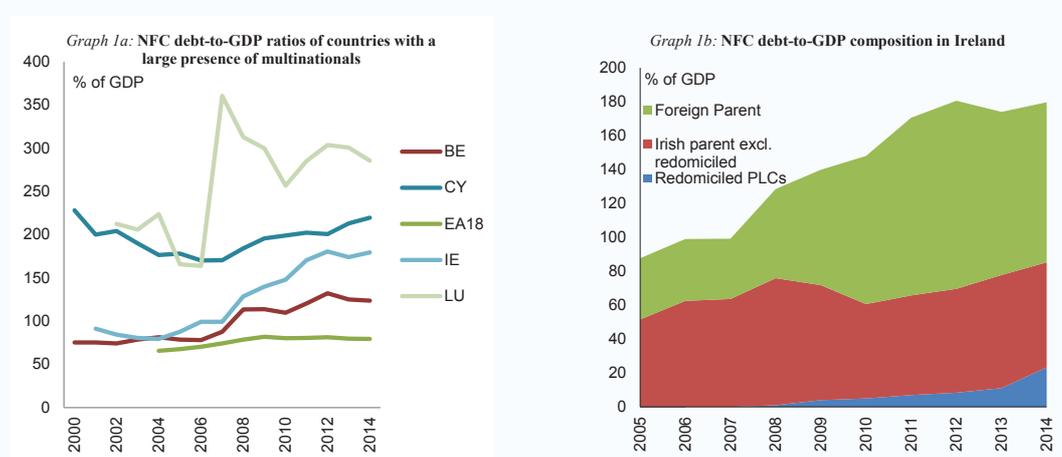
### Box 2.1.1: The impact of multinationals on the debt of non-financial corporations

**The effect of multinational corporations on private sector debt can now be better quantified.** Corporate indebtedness in Ireland is heavily affected by the large presence of multinational corporations and their cross-border financial operations. This effect is also observed in Cyprus, Luxembourg or the Netherlands (graph 1a). Recent data from the Irish Central Statistics Office (CSO) shed some new light on the issue <sup>(1)</sup>.

**The impact of multinational corporations on private sector debt ratios has been rising.** Non-financial corporations (NFCs) with a foreign parent had debts amounting to 36 % of GDP in 2005-2007, close to 40 % of total NFC debt. In 2008, however, Irish affiliates of multinational corporations started increasing their debt while Irish-owned NFCs started reducing it shortly thereafter. The debt of NFCs with a foreign parent surged to 110.9 % of GDP in 2012 before subsiding somewhat (graph 1b), and its share in total NFC debt increased to 61.4 % of the total in 2012. Around 70 % of the debt of NFCs with a foreign parent is external debt. The trend for domestic firms differs as their debt ratio declined mainly during the height of the crisis in 2009 and 2010, moderated around 2011 and has been increasing since. Given that a modest pick-up in new lending to Irish NFCs has been observed only recently, these figures generate questions on how to reconcile evidence on domestic lending trends and outstanding debt stocks. The increase of 6.3 percentage points of GDP in domestic NFCs external debt between 2012 and 2014 might provide part of the explanation.

**Redomiciled private limited corporations (PLCs) have further influenced debt ratios in recent years.** From 2008 onwards, multinational corporations started relocating their headquarters in Ireland, mainly for tax considerations. Redomiciled PLCs conduct little activity in Ireland but hold major assets and liabilities overseas. Given that these companies are headquartered in Ireland, their debts are recorded as domestic NFCs' debt and their level rose from 8.4 % of GDP in 2012 to 23.3 % of GDP in 2014.

Graph 1: The effect of multinational corporations on consolidated NFC debt

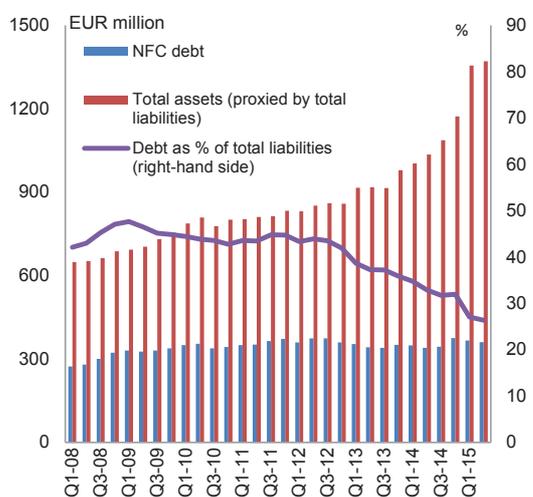


Source: Central Statistics Office, Eurostat

**The macro-economic implications of multinational corporations' debt trends are complex.** The new data shed light on the indebtedness trends of domestic NFCs, but are not sufficient to fully gauge the extent to which the debt of NFCs with a foreign parent impacts aggregate demand or financial stability, either during periods of debt build-up or at times of deleveraging. The data are insufficient to quantify the foreign NFCs debt linked to domestic activities. The high share of debt of NFC with a foreign parent owed to foreign counterparts indicates, however, a high level of cross-border intra-group operations that generate lower risks. Likewise, the debt of redomiciled PLCs is largely irrelevant in terms of macro-economic risks.

<sup>(1)</sup> [Macroeconomic Scoreboard 2014](#), Central Statistics Office, November 2015.

Graph 2.1.3: Corporate debt sustainability



(1) NFC - non-financial corporation

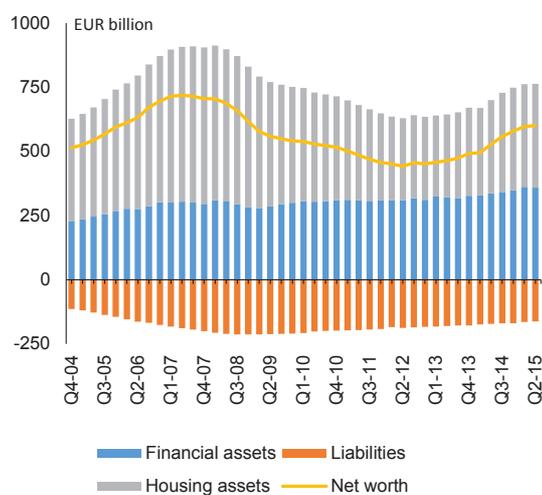
Source: Central Bank of Ireland

**The debt profiles of companies vary greatly and increase with property exposure.** One third of Irish SMEs have no debt at all, and the ratio of non-performing SME loans has been declining constantly in the past two years. In June 2015, 19 % of SME loans held by domestic banks were non-performing, down from 26 % in 2013. However, at least 20 % of SMEs, including many outside of the construction sector, have direct property exposure, which makes them more prone to default. Such exposure may also be registered as the private mortgage of an SME owner or as a commercial real estate loan. Both these types of loan are still characterised by frequent and high non-performing loan levels. Impaired business loans with property connections take considerably more time to restructure because the process involves, where possible, a separation of the viable businesses from legacy (property) debt. On the other hand, such exposure also means that the increase in property prices, in most cases, supports the balance sheet repair of firms.

**Households have used savings to repay debts.** Deposits have increased steadily since early 2014, while household debt has decreased by over EUR 50 billion (24.1 %) since its peak in late 2008. A fifth of this sum was repaid over the 12 months to June 2015, indicating a faster repayment pace. There is now evidence of not only a sustained increase in employment rates but also of increasing disposable income levels after a period

of protracted wage freeze (section 1). Expressed as a percentage of disposable income, Irish household debt nevertheless remains among the highest in the euro area at 167 %. This, however, represents a notable decrease from 182 % a year earlier. Net worth has also been recovering since mid-2012, supported recently by the increase in house prices (graph 2.1.4).

Graph 2.1.4: Household net worth



Source: Central Bank of Ireland

**Many households still face deleveraging needs.** Houses and mortgages are the main assets and liabilities of Irish households. This makes house prices and interest rates a key determinant of their debt profile. The Household Finance & Consumption Survey 2013 showed that over a third of all households have a mortgage on their primary residence<sup>(3)</sup>. The median value of outstanding debt in Ireland is among the highest in the euro area for general household debt and mortgages (triple and double the euro area median). However, when it comes to non-mortgage debt (car loans, credit cards, etc.), the median Irish household owes little compared to the euro area median. The macro-prudential rules introduced by the Central Bank of Ireland in early 2015 (section 2.4) aim to prevent another

<sup>(3)</sup> The euro area (first wave of countries surveyed – 15 countries excluding for Ireland, Estonia, Latvia and Lithuania) average is 43.7 % for all debt and 19 % for mortgage debt respectively. The Irish survey was completed in 2013 while other countries were surveyed in 2009/2010.

unsustainable mortgage debt build-up by requiring larger down payments and by linking the amount of credit available to income.

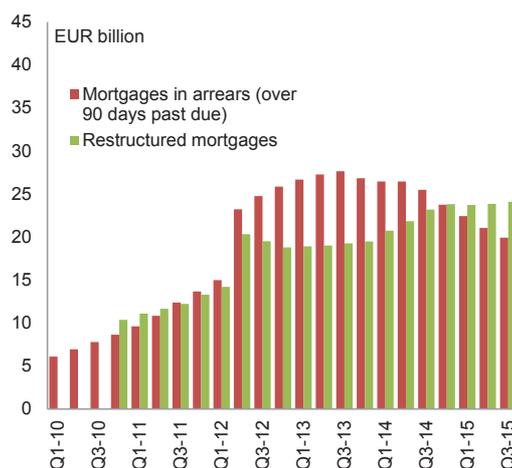
**Certain types of household are more likely to be under a heavy mortgage debt burden.** While 43 % of households in Ireland have no debt at all, the high indebtedness level of some Irish households is the consequence of the real estate bubble. Households that suffer from especially high levels of debt are those that availed of cheap credit at a time when house prices were soaring and prior to income reducing events such as job losses and salary reductions. This explains why younger Irish households (age 35-44 and younger) have much higher median values of outstanding mortgage debt than those in the 45+ age cohort <sup>(4)</sup>. They are also most likely to be in negative equity with a current loan to value ratio higher than one, and they owe the highest amount of debt relative to net income. Apart from timing, the mortgage interest burden also has a substantial effect on debt levels. In Ireland, it varies greatly due to the tracker interest rate from which some households benefit, while others do not.

**Mortgage debt restructuring is starting to bear fruit.** The balance of mortgages in arrears of over 90 days continues to fall <sup>(5)</sup>, reflecting improvements in household financial positions as well as a number of successful restructurings (graph 2.1.5 and section 2.2). Most importantly, the new flow into arrears (performing loans entering into default) has fallen dramatically. Moreover, as at the end of September 2015, mortgage accounts in arrears of over two years had declined for the first time both in number of accounts and balance (section 2.2). In spite of these positive developments, the remaining high level of long-term arrears points to the fact that some households are still excessively leveraged and unable to meet restructuring terms. While almost 90 % of mortgage holders meet their mortgage payments (85 % in balance terms), close

to 6 % (10 % in balance terms) of mortgage holders have not made a payment in the past few years and risk repossession.

**Recent policy initiatives aim to increase the use of personal insolvency and bankruptcy schemes to deal with household debt.** Personal insolvency practitioners and representatives of the Money Advice and Budgeting Service are now present at court hearings to encourage the use of the hitherto little used personal insolvency procedure for mortgage restructuring. Certain court rules were recently changed in order to reduce the number of adjournments <sup>(6)</sup>, and the bank veto on personal insolvency arrangements was removed.

Graph 2.1.5: **Mortgage arrears and restructurings**



Source: Central Bank of Ireland

## General government debt and deleveraging

**Government gross debt is falling significantly.** The European Commission winter 2016 forecast projects the debt to GDP ratio to fall below 100 % in 2015 and reach 91.5 % in 2017. The biggest contribution is expected to come from surging nominal GDP growth (plus a statistical revision of the nominal GDP level in 2014), coupled with a

<sup>(4)</sup> The median value of mortgage debt outstanding for the 45-54 age group in 2013 was EUR 95 000. This compares with EUR 155 000 for the 35-44 group and EUR 204 000 for the 18-34 group. This can partially be accounted for by shorter repayment periods but certainly reflects the effect of property purchases at very high prices.

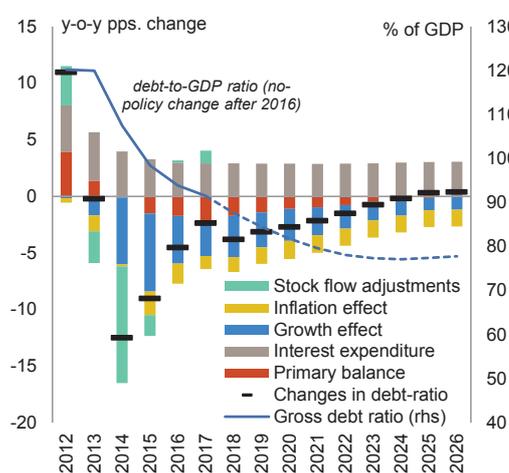
<sup>(5)</sup> The 90+ days in arrears cohort decreased to 16.2 % of total mortgages in the second quarter of 2015, down from a high of 19.9 % in the third quarter of 2013. Source: CBI

<sup>(6)</sup> Under the proposed rules, banks will not be able to use civil bills for strategic purposes anymore, as they will need to show the steps undertaken prior to addressing the court. A civil bill is the first document that the lender seeking repossession of a property can issue.

primary surplus that partially offsets the impact of still high debt servicing costs (graph 2.1.6) <sup>(7)</sup>.

**Gross government debt is largely long-term and at low interest rates.** Of gross government debt, 87.5 % has a maturity of more than one year. Around 28.2 % of that represents official loans from the EU-IMF programme partners, nearly 5 percentage points lower than at the end of 2014, due to the replacement of large parts of the IMF loans by new government bonds (graph 2.1.7).

Graph 2.1.6: **Contribution to change in gross government debt as % of GDP**



Stock-flow adjustments include Irish Bank Resolution Corporation consolidation, banks supports funded by the National Pension Reserve Fund and bank support measures. The remarkable contribution of stock flow adjustment to debt reduction in 2014 is mainly due to the liquidation of the Irish Bank Resolution Corporation, which should no longer have a significant impact on debt reduction in the coming years.

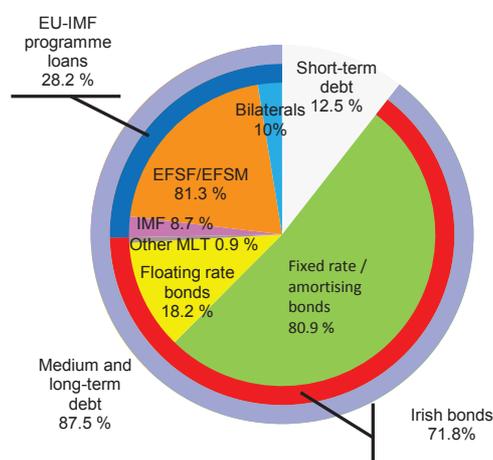
**Source:** European Commission

**The effective interest rate on debt is gradually decreasing.** The average effective interest rate on

<sup>(7)</sup> In 2015, debt management operations and asset sales also contributed to debt reduction. These include the cancellation of EUR 1.0 billion (0.5 % of GDP) of the floating rate bonds purchased from the Central Bank of Ireland, about EUR 0.5 billion (0.3 % of GDP) from the sale of contingent capital notes and equity in Permanent TSB, and the transfer of EUR 1.6 billion (0.9 % of GDP) from the National Pension Reserve Fund from the redemption of Bank of Ireland's preference shares. In 2016, the expected receipts from the redemption of the Allied Irish Banks contingent convertible capital notes of EUR 1.6 billion (0.8 % of GDP) will contribute to the decline in gross debt.

government debt was estimated to be around 3.3 % in 2015, 0.2 percentage points lower than in the previous year. This reflects the combination of currently very favourable market conditions and sensible debt management operations. Yet, compared to that of other Member States, the effective interest rate on Irish public debt remained relatively high due to the fairly large share of long term government bonds at fixed rates (graph 2.1.8).

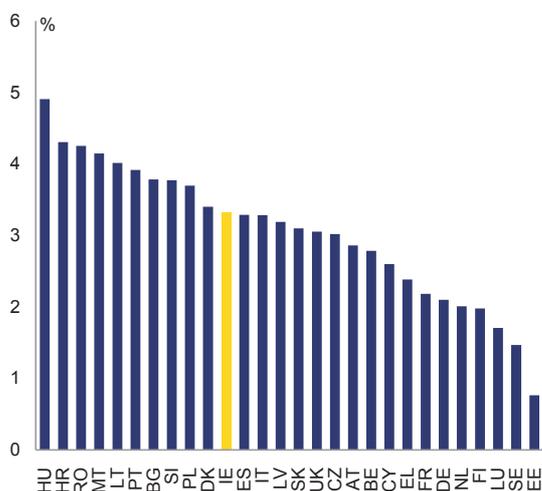
Graph 2.1.7: **Composition of the gross government debt (end of December 2015)**



Short-term debt is debt with a residual maturity of less than one year. Other medium and long term (MLT) bonds, mainly amortising bonds, represent a small fraction (0.9 %) of total Irish bonds.

**Source:** Department of Finance

Graph 2.1.8: Average effective interest rates on government debt (2015)



Source: European Commission

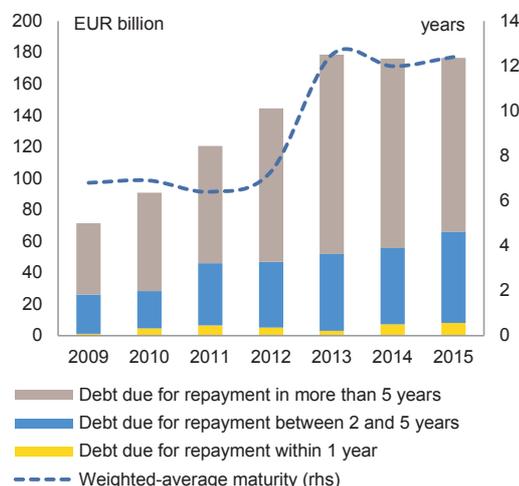
### The long maturity profile reduces risks and eases debt financing.

The average maturity of public debt in Ireland is one of the longest in the EU. From Q3-2014 to Q1-2015, the average maturity of government bonds and EU/IMF programme loans increased by about 1 year to stand at just over 13 years, largely as a result of the replacement of IMF loans<sup>(8)</sup> with longer dated bonds<sup>(9)</sup>. At the end of 2015, the European Financial Stabilisation Mechanism (EFSM) refinanced a EUR 5 billion loan due in December 2015. This operation targeted the longest possible maturity extension without creating peaks in redemptions for Ireland. Looking further ahead, bond redemptions are significant over the medium term. The current outstanding balance on the six benchmark bonds maturing over the period 2017-2020 is around EUR 50 billion (graph 2.1.10).

<sup>(8)</sup> Ireland repaid EUR 9 billion of IMF loans in December 2014 and EUR 3.5 billion in February 2015. The residual balance on the IMF loan now stands at SDR 3.8 billion (EUR 4.7 billion) and is subject to the SDR interest rate plus a margin of 1%. This balance is due to be amortised over the period 2021-2023.

<sup>(9)</sup> This figure also reflects the expectation that Ireland will not have to refinance any of its EFSM loans before 2027. Although maturity extensions to EFSM loans were granted in June 2013, given the roll-over nature of the loans, the revised maturity dates of individual EFSM loans is only determined as they approach their original maturity. The estimate is also based on an original maximum weighted average EFSM maturity figure (term from draw down) of 19.5 years.

Graph 2.1.9: Evolution of the medium- and long-term debt maturity (end of year)



Source: National Treasury Management Agency, European Commission

**Debt sustainability has improved.** Under the baseline scenario<sup>(10)</sup> the latest debt sustainability analysis carried out by the Commission projects the general government debt to GDP ratio to steadily fall until 2024 to around 77% and plateau in the following few years, mainly on account of increasing costs of ageing (graph 2.1.6). This represents a significant improvement compared with the debt sustainability analysis based on the Commission's spring 2015 forecast. The improvement reflects statistical revisions to the level of nominal GDP in 2014 and 2015 (of EUR 3.6 billion and EUR 11.9 billion respectively), which carry over into subsequent years. Better than expected primary budget balances also contribute to the lower debt level.

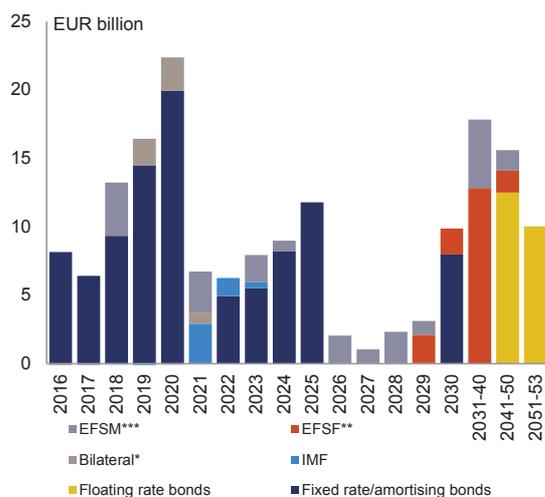
### Adherence to fiscal rules would ensure rapid convergence to a safe level of indebtedness.

The latest debt sustainability analysis carried out by the Commission shows that gross government debt would decline to around 60% of GDP by 2026 if Ireland fully complied with the requirements of the Stability and Growth Pact. This 'SGP scenario' assumes an average annual primary surplus of 2.7% of GDP over the projection period, which

<sup>(10)</sup> From 2017, the baseline scenario of the debt sustainability analysis is based on the no-policy-change assumption i.e. only currently adopted and sufficiently detailed measures are considered.

compares with an average of 3.4 % of GDP in 1995-2007. A robust fiscal framework would support such a path, although recurrent discretionary changes to expenditure ceilings point to weaknesses in that respect (section 4.3).

Graph 2.1.10: **Maturity profile of Ireland's long-term marketable and official debt (end of December 2015)**



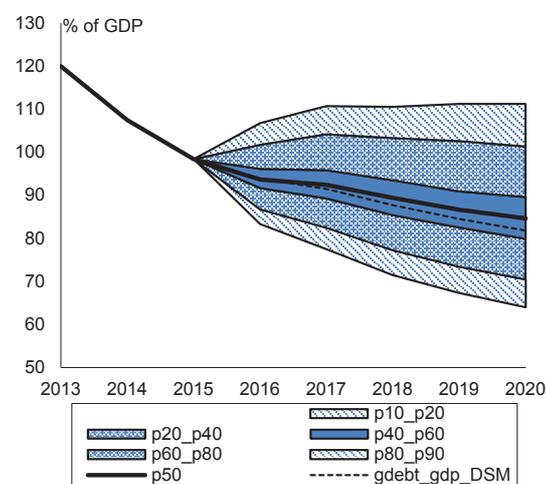
(1) \*Bilateral loans were provided by the United Kingdom, Sweden and Denmark.  
 \*\*European Financial Stability Facility (EFSF) loans reflect the maturity extensions agreed in June 2013.  
 \*\*\*EFSM loans are also subject to a seven year extension. It is not expected that Ireland will have to refinance any of its EFSM loans before 2027. However, the revised maturity dates of individual EFSM loans will only be determined as they approach their original maturity dates. The original EFSM maturities are reflected in the table above.  
**Source:** National Treasury Management Agency

**Vulnerability to external and internal shocks remains significant.** Under the baseline no policy change scenario, negative shocks on real GDP growth, combining country-specific historical variability of output and a permanent negative shock of half a percentage point on GDP growth <sup>(11)</sup>, would increase the public debt to GDP ratio by 8.3 percentage points by 2026 to about 86 %. In turn, a permanent shock of 1 percentage point to short- and long-term interest rates on

<sup>(11)</sup> This enhanced sensitivity test is designed based on a reduction/increase of real GDP growth by one standard deviation, calculated over the last three years of historical data, for two years from the year following the one of last historical data available. After two projection years, the usual -0.5/+0.5 pp permanent shocks on GDP growth would be applied till the end of the projections period.

newly issued and rolled over debt would increase the public debt to GDP ratio by 3.9 percentage points by 2026 to about 81.7 %. A combination of adverse effects on growth, interest rates and primary balance of the magnitude of past shocks would keep the debt ratio at around 100 % of GDP by 2020 (graph 2.1.11).

Graph 2.1.11: **Gross public debt stochastic projections (2015-2019)**



(1) The distribution of debt paths, corresponding to a wide set of possible underlying macroeconomic conditions, is obtained by applying random shocks to short- and long-term interest rates on government bonds, growth rate and exchange rate assumed in the central scenario. The size and correlation of the shock are based on historical behaviour of variables.  
**Source:** European Commission

**Plans to return domestic banks to the private sector will further cut general government debt.** A stake up to 25 % stake in Allied Irish Banks could be sold in 2016 <sup>(12)</sup>. Bank of Ireland repaid EUR 1.3 billion of government preference shares in January 2016. The government's total stakes in domestic banks are valued at about 8.8 % of GDP in 2015. The sale of these assets, whose potential impact has not been taken into account in the latest debt sustainability analysis, therefore creates

<sup>(12)</sup> First a capital restructuring is being undertaken with the redemption of EUR 1.4 billion of preference shares at 125 % of their nominal value, so the state will receive EUR 1.7 billion (0.8 % of GDP). There will also be a conversion of the remaining EUR 2.1 billion of the government's preference shares into common stock. The redemption of the preference shares is being funded by issuances by Allied Irish Banks of EUR 1.25 billion in lower tier 2 and additional tier 1 instruments in late 2015.

significant room for further debt reduction in the near future.

**Government contingent liabilities are declining fast.** State guarantees fell sharply to 13.3 % of GDP at the end of 2014, with the vast majority of contingent liabilities linked to the support granted to financial institutions (table 2.1.1). The ongoing repayment of government guaranteed bonds of the National Asset Management Agency means that contingent liabilities are further decreasing at a rapid pace.

Table 2.1.1: **Government contingent liabilities**

% of GDP	2012	2013	2014
Public guarantees	66.1	31.2	13.3
<i>of which linked to the financial sector</i>			
Eligible liabilities guarantee	41.6	11.2	5.4
Exceptional liquidity assistance	9.2	0.0	0.0
National Asset Management Agency	14.6	19.3	7.2
Other	0.8	0.7	0.7

**Source:** Department of Finance

**Overall, while the debt to GDP ratio has declined significantly, risks and vulnerabilities remain.** Based on current information, the Irish Government's budgetary targets for 2016 and beyond would ensure a declining debt to GDP ratio. They would also contribute to advancing the Recommendation on the economic policy of the euro area, in particular in terms of reducing public debt to restore fiscal buffers. As a small open economy, however, government debt is very sensitive to external and internal shocks as well as to possible deviations from the fiscal adjustment path. An ageing population is also projected to increase health care and long-term care costs.

## 2.2. FINANCIAL SECTOR CHALLENGES

### Bank restructuring and privatisation

**The capital raise of Permanent TSB, one of the three main domestic banks, and approval of its restructuring plan, bode well for the privatisation of all domestic lenders.** Permanent TSB remains the weakest of the three main domestic banks in terms of profitability. Still, in April 2015, the bank issued EUR 400 million in common shares and EUR 125 million in additional tier one capital. The proceeds were used to cover part of the capital shortfall identified in the ECB's 2014 comprehensive assessment and to repurchase the EUR 400 million of the state's expensive contingent capital notes. The Irish government also sold shares to lower its stake in Permanent TSB from 99.2 % to 75 % to meet exchange listing requirements. In April 2015, the Commission agreed to the bank's restructuring plan. It envisages a return to profitability in 2017.

**The restructuring of Allied Irish Banks' capital base is proceeding, in preparation for an eventual sale of part of the bank.** The Single Supervisory Mechanism approved the capital restructuring plan in November 2015. This was a necessary step to prepare for a sale of part of the bank's shares. A maximum 25 % stake in Allied Irish Banks will likely be sold in 2016. The capital restructuring is being undertaken with the redemption of EUR 1.4 billion of preference shares at 125 % of nominal value. There will also be a conversion of the remaining EUR 2.1 billion of the government's preference shares into common stock. The redemption of the preference shares was funded by capital issuances in late 2015 of EUR 1.25 billion in lower tier 2 and additional tier 1 instruments. The government will also receive EUR 1.6 billion in July 2016 when contingent capital notes mature. The bank is 99.8 % government-owned.

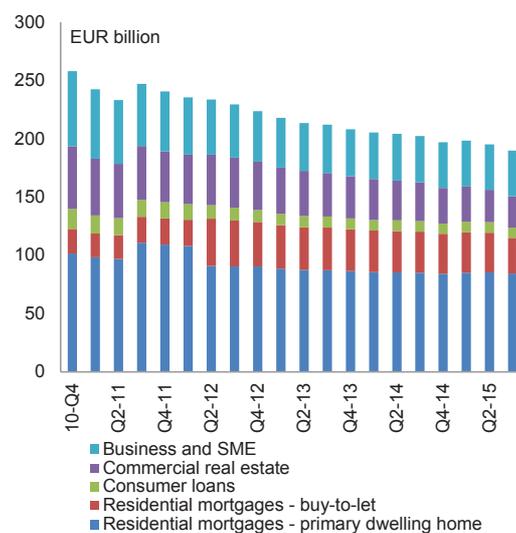
**Bank of Ireland is making progress towards full private ownership.** In September 2015, the bank announced that it will repay EUR 1.3 billion of preference shares in early January 2016. These shares were originally held by the government and have been in private ownership since December 2013. The repayment will allow Bank of Ireland to resume dividend payments for the first time since the onset of the crisis. The government still holds a 14 % stake in Bank of Ireland. It has not indicated when its stake may be sold, but it is expected to

occur only after a stake in Allied Irish Banks is sold.

### Bank lending

**Loan repayments continue but there has been a moderate pick-up in new lending** (graph 2.2.1). As deleveraging continued, the loan to deposit ratio has fallen further, averaging 119 % at the end of June 2015 compared with 125 % a year earlier as deleveraging continued. Still, domestic banks increased new lending by EUR 1.6 billion or 38 % in the year to September 2015 given strong economic growth. Nonetheless, loan repayments continue to outpace new borrowing, resulting in a decline of outstanding bank credit. Corporate net lending was down 7.7 % year on year in October, and for households net lending was down 2.5 % year on year in the same period.

Graph 2.2.1: Domestic banks outstanding loans



Source: Central Bank of Ireland

**The SME/corporate and mortgage sectors dominate new lending.** In the third quarter of 2015, about 43 % of new lending was for SME/corporates, which include manufacturing, hotels and restaurants, wholesale and retail, business services and primary industry. As at the end of September 2015, about 37 % of new lending was for residential mortgages. New commercial real estate lending remains low, as it is principally financed by foreign capital and non-banks. However, it may increase in the future as large portfolios purchased after the crisis are

broken up and sold to investors who may need debt refinancing. Multinational enterprises in Ireland are also principally financed from the parent abroad or foreign banks and not by domestic banks. Thus, domestic credit growth to the SME/corporate sector is largely dependent on the level of loan demand from indigenous firms.

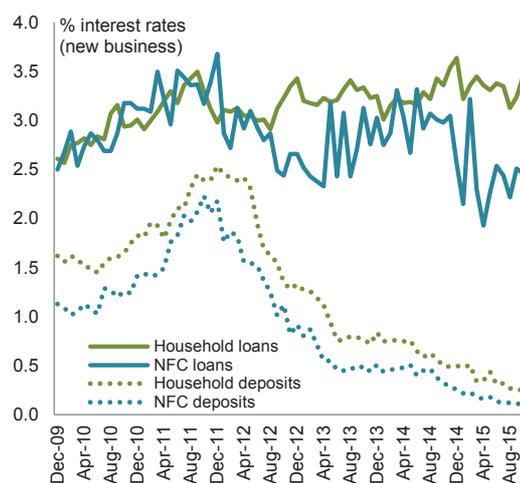
**New lending is characterised by high net interest rate margins because of the low degree of competition in the banking sector.** Interest rates on new lending are relatively high in Ireland, compared with other euro area countries (graph 2.2.2). For example, for mortgage loans, the average floating interest rate was 3.2 % at the end of September, compared with 2.1 % in the euro area. Research links higher lending margins with less competitive banking sectors<sup>(13)</sup>. The structure of the banking sector in Ireland has undergone a lot of changes since the onset of the banking crisis in 2008 with a reduction in the number of banks. There are now only five main lenders in Ireland. New entrants into the market are likely deterred by the still high level of non-performing loans and issues with access to property collateral underlying mortgage loans.

**The central credit registry should support prudent lending but its implementation has been pushed back.** Challenges identified in the process of setting up the central credit registry are the preparedness of lenders to deliver quality data within the set time limits, potential data privacy issues and stakeholder complaints. Moreover, inconsistencies in the definition of arrears among credit providers (banks and credit unions) have had a negative impact on the harmonisation of data. Lenders may start submitting data on individuals from the end of September 2016, while the deadline for the submissions for all categories will only be at the end of 2017. Inquiries to the central credit register when granting new loans to individuals will become mandatory for lenders from 2018 onwards, and obligatory for all categories of loans in mid-2018. The credit registry should underpin careful lending by improving the assessment of borrower's creditworthiness. It should also help calibrate possible future macro-

<sup>(13)</sup> See Central Bank of Ireland document on interest rates <http://www.finance.gov.ie/sites/default/files/Influences%20on%20SVR%20Pricing%20in%20Ireland.pdf>.

prudential measures, such as total debt to income ratios.

Graph 2.2.2: **Net interest rate margins**



(1) NFC - non-financial corporation

Source: Central Bank of Ireland

### Bank capitalisation

**The capital positions of domestic banks are improving but challenges remain.** In the first half of 2015, the domestic banks' capital positions were stable with an average core equity tier 1 ratio of 16.2 % on a transitional basis, but substantially lower on a fully loaded basis with an average ratio of 10.9 % (excluding preference shares). The implementation of the Capital Requirements Regulation and the Capital Requirements Directive is putting more emphasis on fully loaded common equity tier 1 capital ratios. This raises challenges for Bank of Ireland and Allied Irish Banks given their significant holdings of deferred tax assets and preference shares. In Ireland, under national discretions permitted under the capital requirements legislation, the counting of deferred tax assets towards common equity tier 1 capital is phased out by 10 % annually from 2015 until the end of 2023. In addition, after 1 January 2018, the preference shares of Bank of Ireland and Allied Irish Banks originally issued to the government will no longer count as regulatory capital own funds. Permanent TSB's common equity tier 1 ratio is higher than its domestic peers, although the bank remained loss making in the first half of 2015. It still has some mandatory deleveraging to

complete in line with its restructuring plan commitments.

**The Single Supervisory Mechanism has recently communicated to banks the decisions under the Supervisory Review and Evaluation Process.**

These may involve Pillar 2 capital add-ons to be held against additional risks identified in the areas of credit concentration risk, liquidity risk, and reputational and model risk. While these add-ons are not public and differ according to each institution's risk profile, it is expected that common equity tier 1 requirements for most Irish and euro area banks supervised by the Single Supervisory Mechanism would be between 9-12 % of risk-weighted assets.

**The implementation of macro-prudential capital buffers will further raise capital requirements for domestic banks in the medium term.**

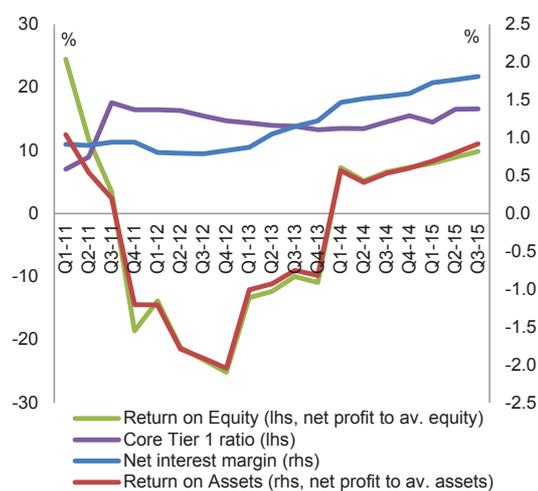
From 2016, the Single Supervisory Mechanism and the Central Bank of Ireland will set the countercyclical capital buffers on a quarterly basis. This aims to enhance the banking system's resilience by requiring banks to raise capital levels when the economy is doing well, which then can act as a buffer when the economy is in a downturn. The countercyclical capital buffer rate in Ireland will be set initially at 0 % of banks' total risk exposures given the considerable contraction in credit since the crisis <sup>(14)</sup>. In addition, another buffer will be phased in for domestic banks designated as systemic. For Bank of Ireland and Allied Irish Banks, the other systemically important institution buffer requirement will be 0.5 % of risk-weighted assets from July 2019, 1 % from July 2020 and 1.5 % from July 2021.

**Bank profitability**

**Bank profitability continues to recover but remains weak.** Recent profitability indicators for domestic banks reveal an average return on equity

of 9.9 % and a return on assets of 0.9 % in the third quarter of 2015 (graph 2.2.3). Operating income has increased due to a continued widening of net interest margins on new lending and due to one-off write-backs of impairment provisions. The need for banks to maintain relatively high net interest margins is due to a concentrated lending market, a still high amount of impaired loans, difficulties with access to collateral, and the need for banks to cover their low yielding outstanding loans linked to tracker mortgages. These still account for more than half of the banks' mortgage books, but their stock decreased from EUR 72.8 billion at the end of 2010 to EUR 57.6 billion in mid-2015, reducing their drag on profitability. Their pace of amortisation has also picked up as a significant number of interest only tracker mortgages are resetting in 2014-2016 to principal and interest mortgages. Bank funding continues to rely more on low interest deposits and less on central bank borrowing. In addition, the falling amount of liabilities covered by the eligible liabilities guarantee scheme has lowered costs.

Graph 2.2.3: Domestic bank profitability



Source: Central Bank of Ireland

**Raising profitability more will be critical to boost capital and supervisory caution is warranted with provision releases.** With low lending volumes and the persistent low interest rate environment, the sustainability of banks' profitability over the medium term deserves close monitoring. Net interest rate margins are unlikely to improve further given market expectations of

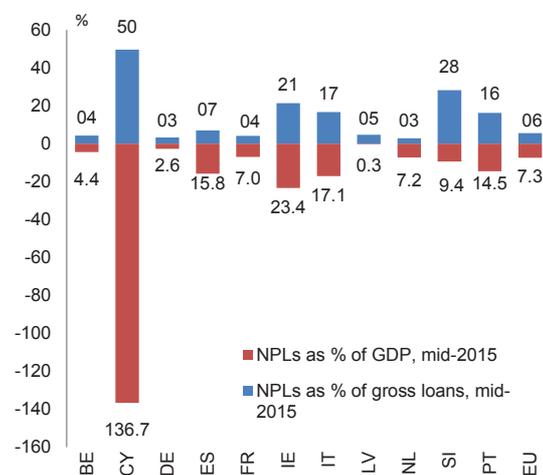
<sup>(14)</sup> The countercyclical capital buffer is a mandatory macro-prudential instrument that is being phased in from 2016. Its rate will range from 0-0.625 %, with the upper limit growing each year until 2019, when it will range from 0-2.5 %. The rate is dependent on a range of macroeconomic indicators, in particular credit to GDP developments, and thus may be set at 0 %. At present, the rate is set at 0 % in all Member States apart from Sweden.

sustained negative monetary policy rates. On the positive side, profitability will continue to be buoyed by the amortisation of low yielding tracker mortgages and the economic recovery.

### Non-performing loans

**Non-performing loans continue to fall with the recovery but remain at a high level, particularly for commercial real estate loans.** At the end of September 2015, non-performing loans in domestic banks represented 18.9 % of total loans, down from a high of 27.1 % at the end of 2013. Nevertheless, the non-performing loans ratio remains among the highest in the euro area. According to the European Banking Authority, non-performing loans were 23.4 % of GDP at the end of June, compared with the euro area average of 7.6 % (graph 2.2.4). The continued improvements in asset quality led to a reduction in provisions, but the coverage ratio was stable at about 57 % in the third quarter of 2015. Although declining through restructurings and disposals, the most impaired loan portfolio remains commercial real estate, with 45.2 % of the domestic banks' loans impaired at the end of September 2015, while SME/corporate loans had a non-performing loans ratio of about 16.7 %. About 30 % of SME loans have some property exposure. The economic recovery has slowed the formation of new arrears, which helped reduce the non-performing loans ratio, along with a more dynamic approach to restructurings.

Graph 2.2.4: NPLs in Ireland and the euro area

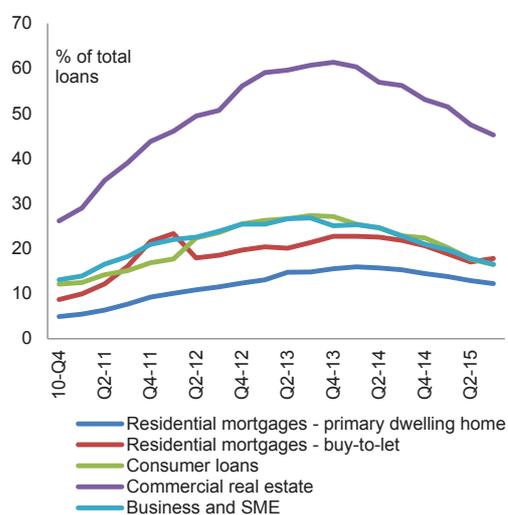


(1) Data as of mid-2015.

Source: European Banking Authority

**Mortgage non-performing loans are declining but remain high.** The balance of mortgages in arrears of over 90 days represented 15.0 % of total mortgages in the third quarter of 2015, down from a high of 19.9 % in the third quarter of 2013 (graph 2.2.5). The balance of buy to let mortgage arrears fell to 26.2 % of the total in the third quarter, still much higher than primary dwelling home arrears at 12.7 % in the same period. The balance of mortgage accounts in arrears of over two years declined for the first time in September 2015 and was 1 % less than in the previous quarter. However, the proportion of long-term arrears to the total arrears balance increased to 64 %. Non-banks held a significant proportion of these long-term arrears at 24.8 % in the third quarter of 2015. Repossessions continued to increase from a low base but remain modest, especially compared with the number of mortgage arrears. For example, there were 2 682 repossessed properties with lenders at the end of September, compared with over 52 000 long-term mortgage arrears accounts.

Graph 2.2.5: NPLs in domestic banks by sector



Source: Central Bank of Ireland

### The National Asset Management Agency continues with the sale of its impaired development and commercial property loans.

The agency's performance as a 'bad bank' has been positive since it has contributed to the stabilisation of the financial system. It has allowed banks to take impaired loans off their books, allowing them to focus on their core business and gradually improve their solvency levels with the goal of restoring their capacity to intermediate. By the end of October 2015, over EUR 30 billion had been generated by the National Asset Management Agency from the sale of loans and debtors refinancing their debt. EUR 22.1 billion or 73 % of senior bonds have been redeemed, boding well for the achievement of its goal of repaying 80 % of senior bonds by the end of 2016. Should the favourable market conditions persist, the agency expects to make a profit for the government of at least EUR 1.75 billion (close to 1 % of GDP) by the time it winds down in 2018.

**Mortgage arrears, particularly long-term ones, remain a concern.** Restructuring proposals made by the five main mortgage holders are monitored by the Central Bank of Ireland through a granular data reporting framework that has replaced the Mortgage Arrears Restructuring Targets (MART). As of the end of September 2015, 86 % of the concluded restructuring solutions were meeting the terms of arrangements. Still, short-term mortgage restructuring arrangements are used to an

excessively large extent. The supervisory authorities have asked banks to provide — by the end of the first quarter of 2016 — plans for concluding sustainable solutions for a majority of distressed mortgage accounts. Although almost 40 % of concluded arrangements and the majority of long-term mortgage arrears involve a loss of ownership, repossessions remain few and lengthy, taking years to complete and with many court adjournments. There is also a need for re-engagement between the bank and the creditor to tackle protracted arrears.

**Recent reforms aim to speed up legal procedures for mortgage restructuring and boost the use of insolvency.** The recent reform of court rules aims to reduce the number of future civil bills filed for repossessions, with cases better prepared and documented, resulting in a reduction in court adjournments. However, it will not apply to the thousands of repossession cases already in the pipeline. The take-up of insolvency also remains low. Between the establishment of the Insolvency Service of Ireland in late 2013 and the end of September 2015, only 661 personal insolvency arrangements were approved. To increase the use of the personal insolvency procedure for mortgage restructuring, personal insolvency practitioners and representatives of the Money Advice and Budgeting Service are now present at court hearings. In case the lender refuses to accept a personal insolvency arrangement, the option of appealing to the court was introduced in November 2015, effectively removing the bank veto. These initiatives contribute to advancing the Recommendation on the economic policy of the euro area, in particular in terms of insolvency proceedings and resolution of unviable private debt.

**Though advancing, the resolution of commercial non-performing loans remains a lengthy process.** Continued efforts by banks to implement sustainable commercial restructuring arrangements are warranted, especially as commercial real estate non-performing loans take considerably more time to restructure even under an improved macroeconomic environment. The recovery in commercial real estate prices has helped the reduction of the impairment rate by making it easier for banks to offload commercial property loans. Thus, asset disposals are likely to continue as a resolution method. However, asset

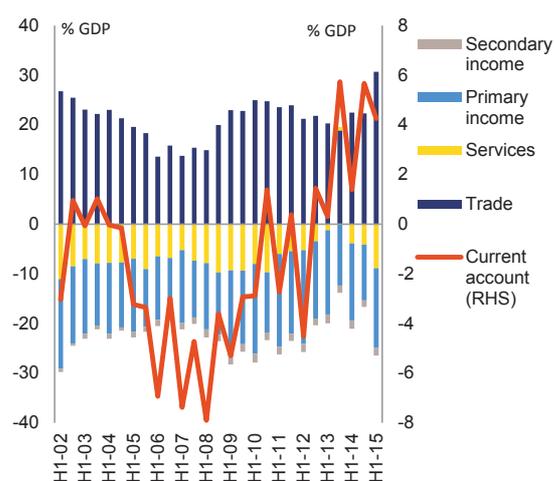
disposals by banks in Europe could make future asset sales more difficult. For the restructuring of certain SME/corporate non-performing loans, separating the viable business from the legacy (property) debt might be needed.

## 2.3. EXTERNAL SUSTAINABILITY

### Current account developments

**Current account surpluses have become firmly established.** The 2015 country report and the 2014 in-depth review documented the rebalancing of economic activity and the turnaround in Ireland's external accounts. This was led by regained competitiveness, a shift in resources towards tradable sectors and a contraction in domestic demand. From a deficit of almost 8 % of GDP in the first half of 2008, the current account shifted to an average surplus of more than 4 % of GDP since the second half of 2013 (graph 2.3.1). This turnaround is similarly sharp after adjusting for the cycle, with a cyclically adjusted surplus of 9.4 % of GDP projected for 2015, compared with a deficit of 6.3 % in 2008.

Graph 2.3.1: Current account balance



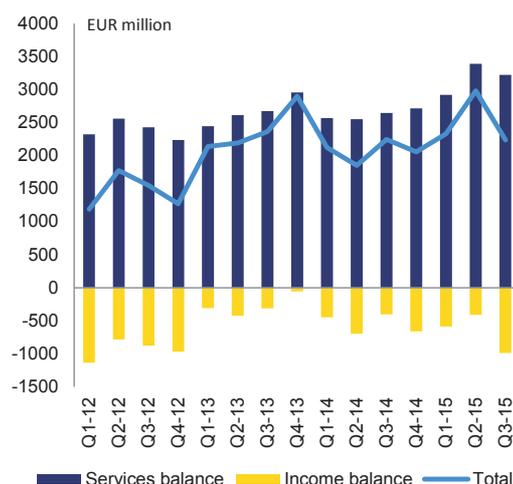
Source: Central Statistics Office

**Several factors complicate the current account analysis.** As sharp as it has been, the turnaround in the current account balance needs to be interpreted with care, mainly on account of the strong influence of large multinational enterprises (MNEs) on the Irish economy and on its external sector. The influence of four issues needs to be considered in particular: the International Financial Services Centre (IFSC); MNE activities; redomiciled private limited companies (PLCs); and aircraft leasing operations.

**The International Financial Services Centre is the main driver of the current account surplus.** The IFSC employs around 35 000 people, mainly

in fund and asset management, insurance and aircraft leasing. Despite its small size in terms of jobs, the IFSC accounted for about 27 % of total export of services in 2014 and the first three quarters of 2015. Although this share has been declining somewhat recently following sustained double digit growth in exports of computer services by MNEs outside the centre, it remains remarkably high. In addition, net services exports by the IFSC are very large and sustained, and not counterbalanced by large net income payments abroad. As a result, since 2012, the IFSC has on average contributed about EUR 2.1 billion per quarter to the current account surplus (graph 2.3.2).

Graph 2.3.2: Current account balance of the International Financial Services Centre



Source: Central Statistics Office

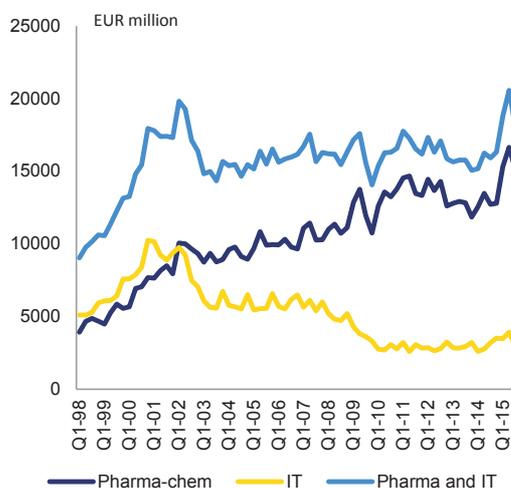
**Recent trends outside the IFSC are very different.** Developments in the current account balance excluding the IFSC are strongly influenced by the activities of MNEs, including redomiciled PLCs. However, Irish exports are not driven only by MNEs. Domestically owned companies<sup>(15)</sup> also contribute substantially. As indicated in section 1, goods exports in sectors dominated by indigenous firms currently account for about 40 % of total goods exports. These are fairly diversified and have increased steadily since 2012, with a

<sup>(15)</sup> Exports of domestically owned companies are estimated by subtracting exports of pharmaceuticals and IT equipment from total exports.

pause in 2013 and a pick-up in more recent quarters.

**Goods exports by MNEs remain concentrated in pharmaceuticals and IT equipment and are now matched by MNE services exports.** These two key exports have gone through contrasting cycles in the past 20 years. Pharmaceutical exports have maintained a rising trend while IT equipment has faded progressively after peaking in the early 2000s (graph 2.3.3). More recently, pharmaceutical exports have been affected by the expiry of patents on key blockbuster medicines (the so-called patent cliff) but the industry has since then recovered. Services exports remain somewhat below goods exports but continue to increase in importance thanks to computer and business services by MNEs. Nevertheless, Ireland's services balance remains negative, largely as a consequence of the royalties and licences payments linked to MNE activities, including in the pharmaceutical sector.

Graph 2.3.3: **Main exports by multinational enterprises**

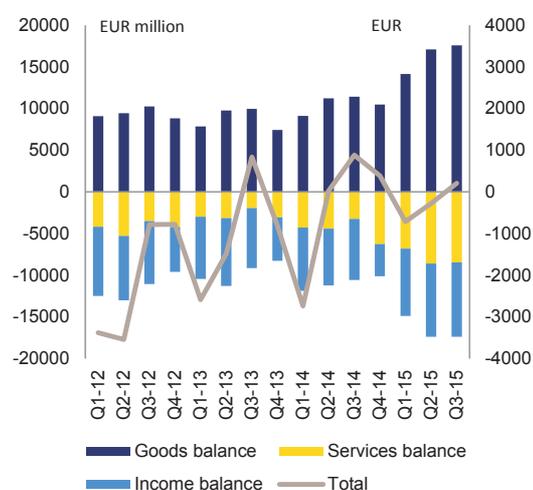


Source: Central Statistics Office

**Although volatile, the current account – excluding the IFSC – is trending towards a broadly balanced position.** Increases in the trade surplus in recent quarters have compensated for a rising deficit in the services and income balances (graph 2.3.4). The latter has been driven by sharp increases in royalty and licences payments, which increased by 80 % between the first three quarters of 2012 and the same period in 2015. Although the

data does not allow for a clear mapping of external payment flows to MNE activities, the non-IFSC balances do provide an indication that MNEs may not have a large surplus inducing effect on Ireland's current account. This is likely to be even more so if the impact of redomiciled PLCs is discounted.

Graph 2.3.4: **Current account balance excluding the International Financial Services Centre**



Source: Central Statistics Office

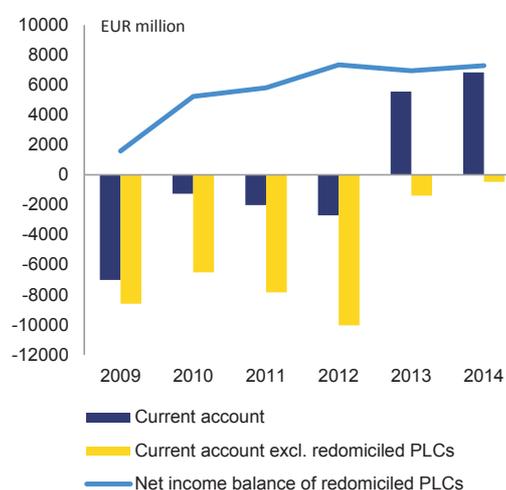
**Redomiciled PLCs artificially inflate the current account surplus.** Starting in 2008, a number of MNEs, mainly from the United Kingdom and the United States, relocated their group headquarters to Ireland, mainly for tax purposes. In contrast with other MNEs established in Ireland, these redomiciled PLCs carry out little activity and employ very few people in the country, but hold major assets around the world. The Central Statistics Office recently published data indicating that direct investment holdings abroad of redomiciled PLCs stood at around EUR 25 billion in 2008 before rising to around EUR 340 billion in 2014. This represents about 65 % of Ireland's outward foreign direct investment stock. These assets are counterbalanced in the international investment position by portfolio liabilities of the same magnitude and therefore have little effect on Ireland's net position. However, the income generated by these foreign direct investment holdings has not been matched by payments of dividends to (portfolio) shareholders abroad. As a result, Ireland's net primary income balance is artificially inflated.

**The current account would still be in deficit if not for the effect of redomiciled PLCs.** The Central Statistics Office estimates the impact of redomiciled PLCs on the net primary income balance at an average of EUR 7.2 billion during 2012–2014. Accounting for this surplus means that the current account deficit would still have been in deficit to the tune of EUR 500 million in 2014<sup>(16)</sup>. While this presents a totally different situation compared to the headline figure, the trend since 2012 remains similar with a sharp correction in the current account balance in the past three years (graph 2.3.5). Although official data are not available for the first three quarters of 2015, one can estimate that the headline current account surplus of EUR 6.8 billion should be reduced to somewhat less than EUR 1.0 billion after accounting for the impact of redomiciled PLCs.

**Current uncertainty on the nature of certain flows generates future unpredictability.** The cumulative net primary income surpluses of redomiciled PLCs between 2009 and 2014 amount to EUR 34.2 billion and they continue to rise. These cumulated flows could reverse faster than they appeared if the location preferences of redomiciled PLCs were to change, following – for instance – changes in national or international tax rules. While the net international investment position would be little affected by this, the repatriation of years of undistributed profits would have a major impact on the current account and would further complicate the assessment of headline figures. The macro-financial issues raised by such potential outflows would depend on how these undistributed profits have been invested, including whether they are invested domestically or abroad.

<sup>(16)</sup> This estimate on the effect of redomiciled PLCs differs from that recently published by [Fitzgerald](#) (who found that the current account surplus was reduced from 6.2 % of GDP to 2.5 % of GDP in 2014). The difference is not because of divergences in the net income balance of redomiciled PLCs, but as a result of revisions to the overall current account balance as published by the Central Statistics Office in accordance with ESA 2010 and the 6th version of the balance of payments manual. Under the revised figures, the current account surplus amounted to 3.6 % of GDP.

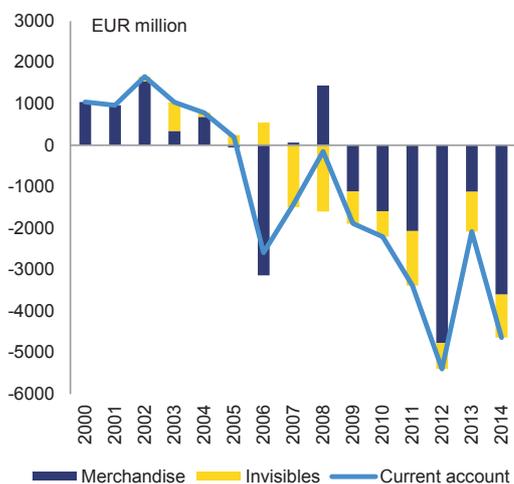
Graph 2.3.5: **Current account balance excluding redomiciled PLCs**



Source: Central Statistics Office

**Aircraft leasing and methodological changes generate large revisions to the current account.** Under the rules of the European System of National and Regional Accounts (ESA 2010), the acquisitions of airplanes by leasing companies based in Ireland are now treated as an import and an addition to the country's capital stock, even though the airplanes never enter the Irish territory. While this change is neutral in terms of GDP and GNP, imports and capital stock are increased significantly as a result, while exports – including of aircraft leasing services – are unaffected. In addition, the implementation of the methodology of the 6<sup>th</sup> version of the balance of payments manual generated some revisions to the services and income balances. Overall, these methodological changes imply that current account balances have been revised sharply between the Q4-2014 and Q3-2015 releases. On average during the period 2012–2014, the revised annual current account balance is EUR 4 billion lower than under the previous methodologies (graph 2.3.6).

Graph 2.3.6: **Current account balance revisions (Q3-2015 vs. Q4-2014)**



Source: Central Statistics Office

### Headline current account figures must be interpreted with particular care.

The release of new data by the Central Statistics Office on IFSC-related external accounts, together with the publication of data and analysis on specific issues like redomiciled PLCs and trade in aircraft is a positive step. It enhances transparency and improves the ability of policymakers and analysts to interpret underlying developments. It also stresses the need to go beyond the assessment of headline figures. In spite of these improvements, however, Ireland's external accounts remain difficult to disentangle fully as the operations of MNEs are particularly complex and in part driven by tax optimisation strategies. Publicly available data does not make it possible to separate the external accounts of the 'domestic economy' from those of MNEs either. While this could be (grossly) estimated for goods using data on merchandise trade, no estimation is possible for services and income flows.

### External assets and liabilities

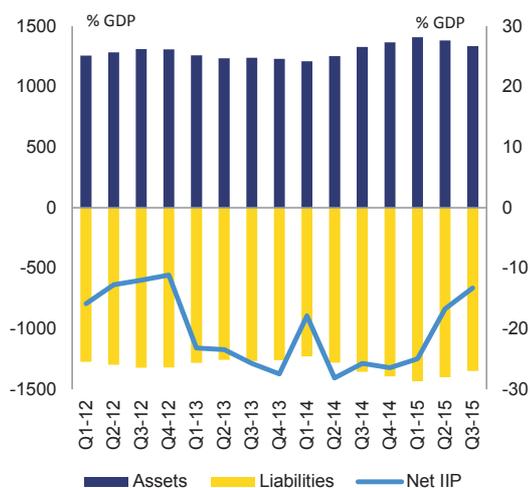
**Net external liabilities have fallen sharply in recent quarters.** At their peak in early 2012, Ireland's net external liabilities amounted to close to 140 % of GDP. While they remained around that level until the end of 2013, the reduction has been remarkably big and fast over the past six quarters as net external liabilities fell to less than 80 % of forecast GDP by Q3-2015. As for the

current account, various factors need to be disentangled in order to assess the main drivers of the changes and the sustainability of the external position.

### The IFSC has vast assets and liabilities but a relatively moderate net position.

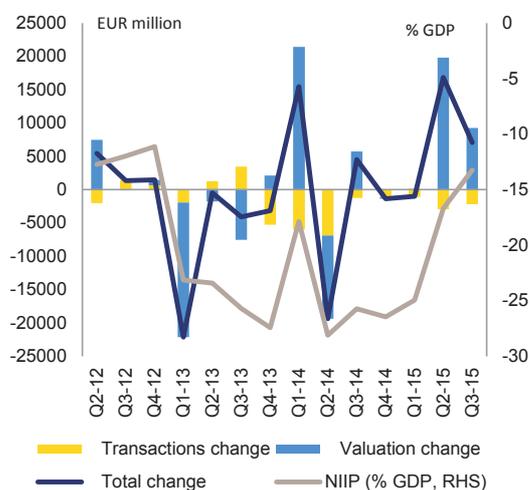
Asset management, insurance and leasing operations based in the IFSC generate large external asset and liability positions, mostly in the form of portfolio equity and debt instruments (with assets close to 1 000 % of GDP in Q3-2015) and loans or deposits (with assets close to 400 % of GDP in Q3-2015). The IFSC's negative net international investment position – at an average of about 20 % of GDP between 2012 and Q3-2015 – has been relatively moderate over the past few years (graph 2.3.7). It has nevertheless been volatile on account of large swings in valuation changes, which ranged between a liability reducing effect of EUR 21 billion and a liability increasing effect of EUR 20 billion in recent quarters (graph 2.3.8). The range between the smallest and largest net international investment position of the IFSC between Q1-2012 and Q3-2015 amounts to 17 percentage points of GDP. This means that the headline net international investment position figure can vary greatly on account of what is essentially an offshore segment of the economy.

Graph 2.3.7: **International investment position of the International Financial Services Centre**



Source: Central Statistics Office

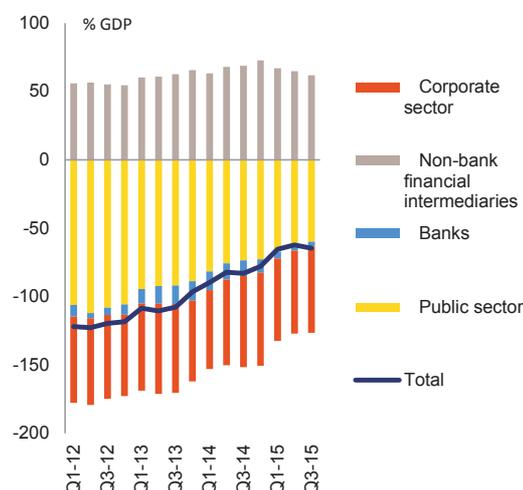
Graph 2.3.8: Changes in the investment position of the International Financial Services Centre



Source: Central Statistics Office

**The decrease in net external liabilities outside the IFSC has driven the improvement in the overall position.** In the past 3½ years, the net liability position outside the IFSC as a share of GDP has been almost halved to about 65 % of GDP in Q3-2015 (graph 2.3.9). In turn, this improvement has been driven mainly by the sharp fall in public sector net liabilities. While general government net external liabilities remain broadly stable at around 60 % of GDP, the position of the Central Bank of Ireland improved dramatically to a balanced net external position in Q3-2015, in parallel with the fall in Target 2 balances to EUR 22.5 billion at the end of November 2015 from a peak of EUR 162 billion at the height of the banking crisis in December 2010. While domestic banks had previously accumulated large net external liabilities, the extensive deleveraging of the past few years has now brought them to essentially a balanced net external position.

Graph 2.3.9: International investment position excluding the International Financial Services Centre



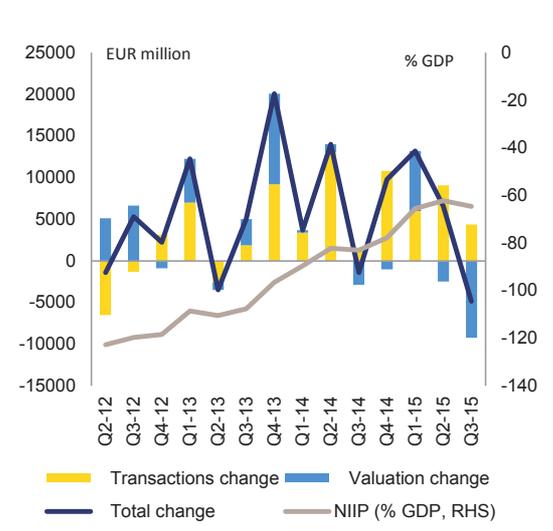
Source: Central Statistics Office

**MNE activities have a significant bearing on the net external position.** In contrast to their impact on the current account, redomiciled PLCs have little impact on the net external position, as large holdings of foreign direct investments abroad are offset by portfolio liabilities arising from the shareholders of these companies being mostly non-Irish residents. Conversely, "operational" MNEs with significant productive capacity in Ireland generate large net liabilities. The net external position of the corporate sector (dominated by MNEs) averaged 62 % of GDP during the past 3½ years.

**Improved fundamentals underpin the improved net external position.** Valuation changes also matter in the evolution of the non-IFSC external position, but significantly less than for the IFSC, which has much larger gross positions. Over the past 3½ years, valuation effects have been mostly in Ireland's favour, with a cumulative net liability reducing impact of EUR 22 billion (graph 2.3.10). In turn, the cumulative transactions based impact (current account plus capital and financial account balances) amounted to EUR 59 billion over the same period. This is a further indication that Ireland's net external position has genuinely strengthened in recent quarters. The long-term nature of the public sector external debt and the low interest rates that it carries – the driving factor behind the negative external position together with

MNEs – also mitigate risks associated with such a position (section 2.1).

Graph 2.3.10: **Changes in the international investment position excluding the International Financial Services Centre**



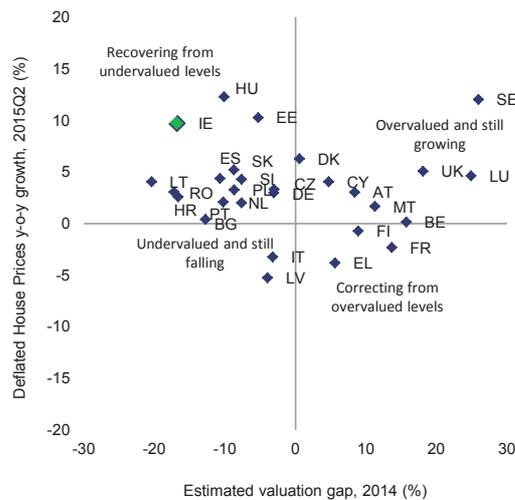
Source: Central Statistics Office

## 2.4. PROPERTY MARKET DEVELOPMENTS

### House price developments

**Residential property price increases have slowed in 2015.** Although, house prices rose rapidly in 2014, this came after the collapse in house prices between 2008 and 2012. Residential property prices at the national level in December 2015 remained 33.5 % lower than the peak observed in 2007. In addition, the pace of increases slowed over the course of 2015, with prices rising by 6.6 % year on year in December 2015, compared with 16.3 % in December 2014. At this stage, there is no evidence of overvaluation when compared with standard indicators (price to income and price to rent ratios) or regression-based equilibrium property price estimates (graph 2.4.1).

Graph 2.4.1: House prices: valuation levels in 2014 and variations in Q2-2015

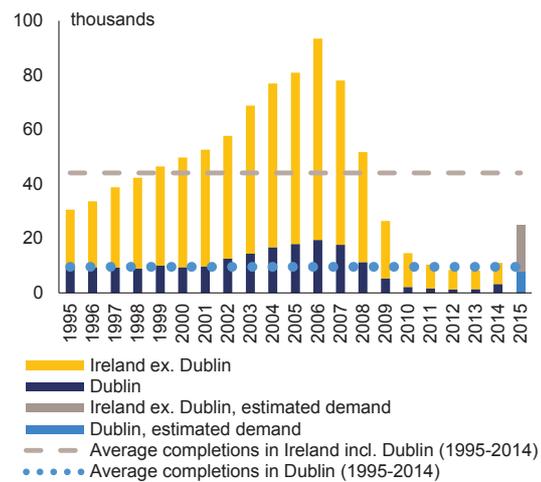


Source: European Commission

**There is substantial regional variation in house price increases.** The rate of increase in residential prices in Dublin have slowed sharply this year, rising only 2.6 % year on year in December 2015, compared with over 22.3 % year on year in December 2014. At the same time, the in the rest of Ireland continued, with year on year prices rising by 10.2 % in December 2015, the same rate as observed in December 2014. The price stabilisation in urban areas is possibly related to the introduction of new macro-prudential measures on the provision of mortgages, which are likely to be more binding in Dublin where the ratio of property prices to incomes is higher. Meanwhile,

residential property transactions declined by as much as 18 % year on year in Q4-2015, following a number of years of sustained increases<sup>(17)</sup>.

Graph 2.4.2: House completions versus estimated housing demand



Source: Department of Environment, Community and Local Government. Estimated demand based on Morgenroth (2014) and Duffy et al. (2014).

### Supply side developments

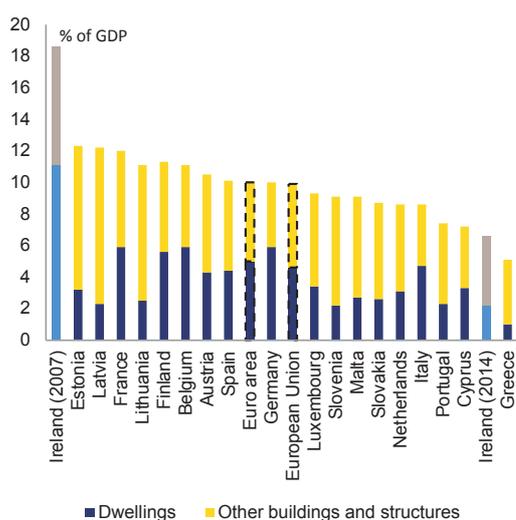
**The recovery underway in the construction sector is from a very low base and below estimated needs.** Despite steadily growing demand for housing and rising residential property prices in Ireland, housing investment remains subdued following the devastation of the construction industry during the property crash. In the first eleven months of 2015, notices of housing commencement were issued for 7 729 units in the first eleven months of 2015 (compared with just 2 130 in the same period of 2014), while 11 314 units were completed over the same period (compared to a just 9 827 in the first eleven months of 2014). These completion figures remain far below estimates of national housing demand by

<sup>(17)</sup> This sharp decline may also be related to the end of the capital gains tax exemption for property bought between late 2011 and 2014. See: Fagan, G. (2015) 'Property Markets and Financial Stability', Address to 2nd Sunday Business Post Property Summit, December. <https://www.centralbank.ie/press-area/speeches%5CPages%5CaddressbyChiefEconomist>. Transactions data are from the property price register and were downloaded on 3 February 2015 but are subject to revision: <http://www.propertypriceregister.ie>.

the Economic and Social Research Institute, which estimates that 25 000 units per year are required nationally, over 7 000 of which are needed in Dublin (see graph 2.4.2).

**There are signs of a gradual acceleration in the recovery in construction activity.** Construction employment grew by 13.3 % year on year in the third quarter and the Ulster Bank construction PMI (purchasing managers' index) remains high at 58.6 in December (where 50 indicates no change in activity). However, it should be noted that, at least until recently, the National Asset Management Agency was responsible for a considerable proportion of completions in Dublin.

Graph 2.4.3: **Gross fixed capital in construction (2014)**



Source: Eurostat

**Estimates of demand for new housing currently exceed supply by a wide margin in urban areas<sup>(18)</sup>.** In contrast to the pre-crisis period, investment in housing in Ireland is now substantially below the EU average and remains at historically low levels (see graph 2.4.3). While price developments do not currently represent an imbalance, constraints limiting the construction

<sup>(18)</sup> Morgenroth, E. (2014) Projected Population Change and Housing Demand: A County-level Analysis, ESRI research note: <https://www.esri.ie/pubs/RN20140203.pdf>.  
Byrne, D., Duffy, D. and Fitzgerald, J. (2014) Household Formation and Tenure Choice, ESRI QEC Research Note: <https://www.esri.ie/publications/household-formation-and-tenure-choice/>.

sector and the supply of housing could generate risks of imbalances building up if such constraints are not addressed.

#### Supply side constraints and policy initiatives

**The government recently announced an extensive package of new measures designed to alleviate a number of supply constraints.** One constraint arises from the substantial decline in the number of domestic developers following the property market crash. Many of those that continue to operate remain heavily indebted, which hinders their ability to access funding for potentially profitable new projects.

**Surviving domestic developers are still struggling to adapt to equity based financing.** In the pre-crisis period banks regularly offered 100 % bank debt funding. Although new bank lending has started to recover recently, banks now demand that developers provide or obtain in the order of 30 % equity funding. It is reported that third party equity funding is not favoured because it is perceived to be more costly. In addition, equity funding implies transferring some ownership of the firm implying a loss of control on the part of the developer. Cultural resistance to this change is reported to have contributed to the depressed level of construction output among domestic firms.

**The government's Construction 2020 strategy recognised the need to provide alternative sources of development funding.** Publicly supported agencies are increasingly active in funding the construction sector. The Ireland Strategic Investment Fund offers equity financing, but take-up on the scheme remains relatively slow.

**Less onerous national building standards for apartments are being introduced.** Strict planning and development regulations were introduced after the crisis to raise the standards of apartment developments as it was perceived that their quality was poor and unsuitable for families. Existing regulations nevertheless represent a supply constraint in the property market by increasing the cost of construction and there is evidence

suggesting that they are excessively strict<sup>(19)</sup>. The government has therefore revised some apartment planning regulations, which it estimates will lead to an average cost reduction of EUR 20 000 per unit in Dublin City. Other research indicates that the existing regulations add 25 % to overall construction costs<sup>(20)</sup>. As such, the new national planning guidelines have the potential to substantially reduce costs or to increase profit margins and viability for many residential development projects, thereby supporting an increase in supply.

**The government also announced measures to increase the supply of affordable homes in urban areas.** These include a targeted rebate of development contributions paid by developers to certain local authorities, with the price of eligible units not exceeding EUR 300 000 in Dublin and EUR 250 000 in Cork. Research indicates that development levies can exceed EUR 10 000 on a typical family housing unit, so the rebate has the potential to substantially reduce costs and/or raise profit margins on qualifying developments<sup>(21)</sup>. However, the measure has yet to be implemented and the government has not indicated whether developers incurring these costs will be refunded retrospectively. This could potentially lead to delays in commencements as developers await clarification on eligibility. Moreover, the Economic and Social Research Institute warned that tax breaks in the presence of other supply constraints could simply lead to a transfer of tax revenue from the state to developers with no effect on supply<sup>(22)</sup>.

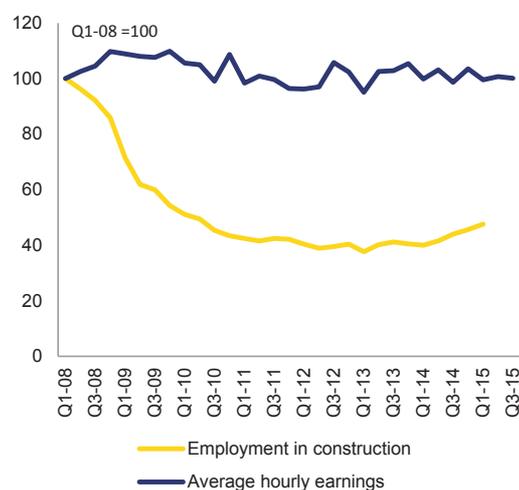
<sup>(19)</sup> Lyons, R.C. (2015). 'Housing supply in Ireland since 1990: the role of costs and regulation', The Statistical and Social Inquiry Society of Ireland Barrington Lecture: <http://www.ronanlyons.com/wp-content/uploads/2015/08/Ronan-Lyons-Barrington-lecture-2015.pdf>

<sup>(20)</sup> Society of Chartered Surveyors of Ireland: <https://www.scsi.ie/news/view?id=59>

<sup>(21)</sup> Society of Chartered Surveyors of Ireland: <https://www.scsi.ie/news/view?id=59>

<sup>(22)</sup> Barrett, A., Duffy, D. and McQuinn, K. (2015) Tax Breaks and the Residential Property Market, Economic and Social Research Institute: <https://www.esri.ie/pubs/BKMNEXT297.pdf>

Graph 2.4.4: Index of employment and hourly earnings in construction



Source: Central Statistics Office

**High construction sector wages and shortages of skilled labour could put upward pressure on costs in the construction sector.** Hourly earnings in the construction sector only fell moderately over the course of the crisis despite drastic declines in construction employment (graph 2.4.4). Although the form of wage adjustment may relate to industry-specific characteristics<sup>(23)</sup>, Commission analysis also indicates that construction wages in Ireland consistently exceed those in Northern Ireland. Furthermore, the analysis indicates that there is no tendency towards convergence despite substantial labour mobility with the United Kingdom. The National Competitiveness Council recently announced that it will conduct a benchmarking exercise to determine whether Irish residential construction costs are out of line with other countries. As part of Construction 2020, the

<sup>(23)</sup> For those construction workers who did not lose their jobs during the crisis, more significant falls in wages are likely to have operated via both changes in hours and through more nominally flexible informal wage components. For further discussion of downward nominal wage adjustments in Ireland see:

Doris, A., O'Neill, D. and Sweetman, O. (2014) Wage Flexibility and the Great Recession: The Response of the Irish Labour Market, IZA Discussion Paper Series No 7787: <http://ftp.iza.org/dp7787.pdf>

Keeney, M. and Lawless, M. (2010) Wage setting and wage flexibility in Ireland: Results from a firm level survey. ECB Working Paper, No 1181: <https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1181.pdf?dbb7706c7d868744821f99f7f5440d5c>

Expert Group on Future Skills Needs has highlighted the potential for skills shortages to emerge in the construction sector. Although they report that unemployment remains high among workers formerly employed in construction, many of these job seekers only have secondary education, which could limit their ability to fill vacancies<sup>(24)</sup>. Overall, recent wage and employment developments in the construction sector may be indicative of structural barriers in the construction industry, which could hamper the delivery of housing units.

**The National Asset Management Agency is committed to delivering an additional 20 000 homes by 2020.** Under current plans, the agency expects to concentrate its residential development activities in the Dublin area. Approximately 75 % of its construction will be houses and 25 % apartments. The National Asset Management Agency is also providing vendor financing to property development firms. A number of Irish developers have filed a complaint with the Commission regarding the involvement of the National Asset Management Agency in property development, allegedly for breaching State aid rules.

**The concentration of housing demand in Dublin highlights concerns about the absence of an update of the National Spatial Strategy.** The proposed National Planning Framework could help to distribute economic activity, infrastructure and housing better across Ireland. On this point, it is debatable whether the predominance of houses in the National Asset Management Agency's plan is appropriate given the already low density of residential development in Dublin combined with the limited public transport infrastructure available in the city.

**The government has published legislation to establish the Office of the Planning Regulator.** The establishment of an independent authority to oversee the planning process was a key recommendation of the Mahon tribunal into corrupt payments to politicians. Subsequent

research has indicated that the rate of planning rejections in Ireland during the boom was correlated with the dominant political affiliation of local councils. The new regulator will operate by informing the Minister for the Environment if a particular planning strategy is not consistent with proper planning. Notwithstanding these reforms, the cost of obtaining a building permit remains comparatively high, which could hamper investment<sup>(25)</sup>.

**The Infrastructure and Capital Investment Plan may help alleviate some infrastructural constraints on the supply of housing.** The plan aims to contribute to the delivery of transport, water and other infrastructure essential to facilitate an increase in property development. Recent studies report that there is sufficient zoned land in Dublin for an additional 95 000 housing units<sup>(26)</sup>. However, it is estimated that the development of approximately 50 000 of these is constrained by inadequate infrastructure not fundable via development contributions (section 3.3).

**The capital investment plan also targets an increase in the direct provision of social housing.** The government has set a target of 35 000 new social housing units by 2021. The Urban Regeneration and Housing Act was enacted in 2015 and includes a revision of the mandatory provision of social housing required of property developers, such that they are lower but more binding. The previous rules were criticised because developers could make financial contributions in lieu of delivering social or affordable housing units. The structure of property taxation (see also section 3.4) does not encourage efficient land use and revenue considerations may discourage local authorities from rezoning land from commercial to residential. The vacant site levy would have provided a disincentive to developers holding land speculatively in anticipation of future price increases, but it will not come into effect until 2018.

<sup>(25)</sup> World Bank, Doing Business Indicators 2016: <http://www.doingbusiness.org/data/exploreconomies/ireland#dealing-with-construction-permits>.

<sup>(26)</sup> Dublin Housing Supply Coordination Task Force: <http://www.environ.ie/en/DevelopmentHousing/PlanningDevelopment/DublinHousingSupplyCoordinationTaskForce/DublinHousingTaskForce/FileDownload.41974.en.pdf>. <http://www.environ.ie/en/Publications/DevelopmentandHousing/Planning/FileDownload.40631.en.pdf>.

<sup>(24)</sup> Expert Group on Future Skills Needs (2015) National Skills Bulletin 2015, May: <http://www.education.ie/en/The-Department/Bodies-and-Committees/National-Skills-Bulletin-2015.pdf/>

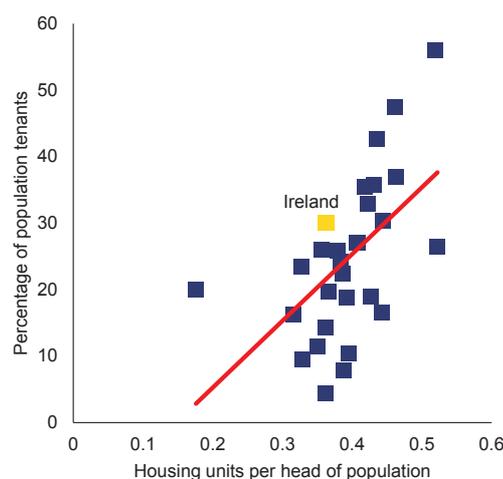
**The adverse social consequences arising from the housing supply shortage are exemplified by the recent upsurge in family homelessness in Dublin.** The number of homeless adults with dependents in Dublin increased sharply from 440 in November 2014 to 963 in November 2015, while the number of dependents (including children) has increased from 741 to 1 466<sup>(27)</sup>. Homelessness is likely to have an adverse impact on child development, education and general well-being. The impact of the supply shortage in the private rental sector is likely to have exacerbated homelessness in Dublin because increased market rents now exceed rent allowance and Housing Assistance Payment limits. In addition to addressing underlying housing supply issues, the recent government housing policy announcement moved to address the specific issue of homelessness in the short run, by increasing the pilot Housing Assistance Payment for the homeless in Dublin by 50 % over rent supplement limits.

### Rental market developments

**The proportion of the population renting has increased substantially in recent years.** Although Ireland had long been characterised as a nation of owner-occupiers, 31.4 % of the population lived in rented accommodation in 2014, slightly above the EU average of 29.9 % and substantially up from just 21.9 % in 2007. Although this increase has been linked to the availability of mortgage credit, it may also relate to recent immigration, as over half of all households renting were headed by a foreign national in 2011. The rate of wage increases has not kept pace with rent increases in urban areas in recent years. This strains affordability, particularly as tenants in the private rented market are more likely to have low earnings. In this context, it is important to have a well functioning rental market that provides security to tenants while also encouraging investment and housing supply. These goals may be complementary as suggested by the positive correlation between the share of households renting and the stock of housing per capita (see graph 2.4.5). To date, the rental market has been

dominated by small scale individual investors, whereas large scale institutional property investors could be in a better position to increase supply and manage tenancies professionally.

Graph 2.4.5: Proportion of population renting and housing stock per capita

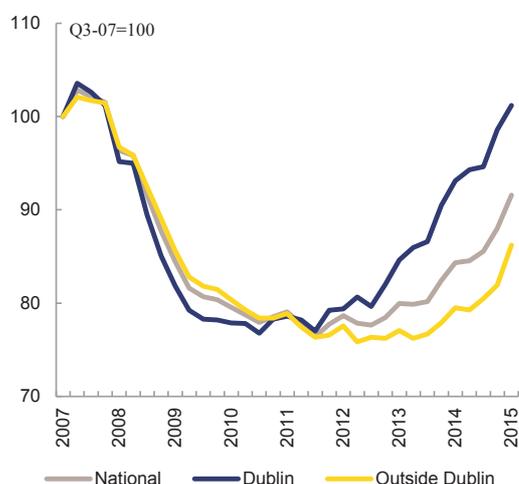


Source: Eurostat

**Mounting pressures in the rental market in urban areas reflect an inadequate supply of housing.** Rent in Dublin increased 8.7 % year on year in the third quarter of 2015, and rents in the capital are approaching the levels seen at the peak of the property boom (graph 2.4.6). The persistence of rent increases is somewhat surprising given that it occurred at a time of slowing house price increases. It has been suggested that this is attributable to the effects of the macro-prudential measures introduced by the Central Bank of Ireland, as would-be first time buyers have been forced to rent for longer while they save for a down payment. The macro-prudential rules are nevertheless less restrictive on loans to first time buyers as empirical evidence suggests that they represent a lower risk to banks.

<sup>(27)</sup> Dublin Regional Homeless Executive (2015) Dublin Region: Families who are homeless, November 2015: <http://www.homelessdublin.ie/publications>.

Graph 2.4.6: Private residential rent index



Source: Private Residential Tenancies Board

**The government recently announced rental market reforms aimed at providing increased certainty to tenants.** These measures include a reduction in the frequency of rent reviews to once every two-years as well as a longer minimum notification period for rent rises. Regulations that enhance tenure security may increase the attractiveness of rental housing relative to homeownership<sup>(28)</sup>. The latter finding may be supportive of the broader goals of the new government policies, namely to make renting a more viable long-term proposition for tenants. The authors also suggest that rent regulations may redistribute from new tenants to incumbents, reflecting the tendency for landlords to initially set higher rents in order to compensate for the erosion of real rents suffered during occupancy.

**New rental market measures may hinder investment in rental properties.** Stringent rent regulations potentially discourage new construction and maintenance by capping the price of rentals, thus lowering the net return on such investments. On the other hand, regulations affecting qualitative aspects of the tenancy contract

<sup>(28)</sup> Andrews, D., A. Caldera Sánchez and Å. Johansson (2011), Housing Markets and Structural Policies in OECD Countries, OECD Economics Department Working Papers, No. 836, OECD Publishing: <http://dx.doi.org/10.1787/5kgk8t2k9vf3-en>.

negotiations have not been found to have a first-hand impact on housing market dynamics<sup>(29)</sup>.

**The government also introduced additional measures to protect landlords.** Most notably, the authorities intend to achieve faster enforcement in cases of rent arrears and anti-social behaviour. On the other hand, landlords will now be required to lodge tenancy deposits with the Private Residential Tenancies Board, to prevent landlords unfairly retaining deposits. Overall, the new measures may help to counteract market failures arising from asymmetric information that potentially result in the under-provision of tenant security<sup>(30)</sup>.

#### Macro-prudential measures targeting the real estate sector

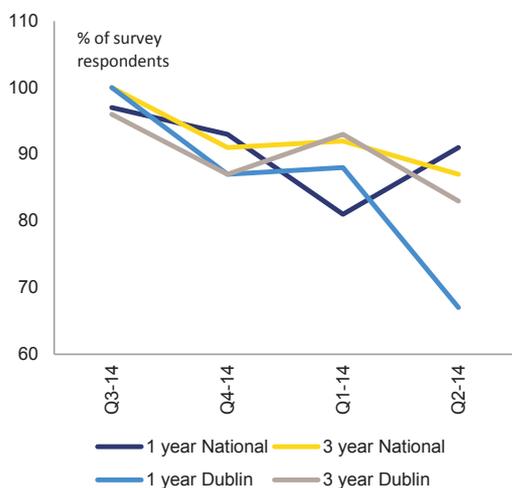
**The rapid rate of price increases in 2014 prompted the Central Bank of Ireland to introduce macro-prudential measures.** Newly established loan to value and loan to income limits are designed to enhance the resilience of both banks and households, unlike sectoral capital requirements that primarily affect lenders' balance sheets. These measures help to strengthen banks' balance sheets as they decrease both the probability of default and loss-given default of new mortgage loans. At the same time, by limiting credit supply for some borrowers, these measures can dampen house price increases, especially where these result from speculative property investment practices. Moreover, the measures can limit the build-up of household leverage that can partly stem from expectations of continued future price increases, as less credit is extended against the value of property.

<sup>(29)</sup> Rent controls have been shown to have a significant destabilising impact on the aggregate housing market. See Cuerpo, C. Kalantaryan, S. and Pontuch, P. (2014) Rental Market Regulation in the European Union, European Commission, Economic Papers 515: [http://ec.europa.eu/economy\\_finance/publications/economic\\_paper/2014/pdf/ecp515\\_en.pdf](http://ec.europa.eu/economy_finance/publications/economic_paper/2014/pdf/ecp515_en.pdf).

<sup>(30)</sup> National Economic and Social Council (2015) Ireland's Rental Sector: Pathways to Secure Occupancy and Affordable Supply, No. 141, May 2015: [http://files.nesc.ie/nesc\\_reports/en/141\\_Irelands\\_Rental\\_Sector\\_MainReport.pdf](http://files.nesc.ie/nesc_reports/en/141_Irelands_Rental_Sector_MainReport.pdf).

Hubert, F. (2003), 'Rent Control: Academic Analysis and Public Sentiment', Swedish Economic Policy Review, 10: 61-81: <http://www.government.se/contentassets/6e57e1d818bb4b289ac512bb7d307fa5/franz-hubert-rent-control-academic-analysis-and-public-sentiment>.

Graph 2.4.7: Respondents expecting residential property price increases over 1 and 3 years



Source: Central Bank of Ireland, SCSl Survey of Property Professionals

**The impact of the macro-prudential measures remains uncertain.** According to the Central Bank of Ireland, data and experience is not yet sufficient to conduct an assessment of the impact of the macro-prudential measures on mortgage lending and house prices. Analyses on transmission mechanisms and the effectiveness of macro-prudential policies are still in their infancy. This is not only because of the absence of an agreed modelling framework of the interaction between the financial system and the macroeconomy but also of insufficient empirical evidence and experience with such measures. In the case of Ireland, data covering the first three quarters of 2015 are unlikely to be representative of the actual effects of the measures on credit supply, and lending data should only begin to reveal early effects of the measures from the end of 2015. The Central Bank has signalled its intention to conduct a review of the measures later in 2016, once sufficient data are available.

**It is not certain whether the macro-prudential measures have placed a binding constraint on credit extension.** It appears that loans with loan to value and loan to income ratios above the proportionate thresholds are yet to reach the maximum volumes permitted under the new rules. In addition, data on the proportion of new lending that took place at ratios outside the limits before the measures were introduced appear to indicate

that effects on credit supply should not have been significant to date. This is because the measures were broadly compatible with established lending practices. Indeed, it should be noted that a high proportion of transactions (approximately 44 % in the first three quarters of 2015) involved cash purchasers who would not be directly impacted by mortgage lending rules.

**Reduced expectations of future price increases resulting from macro-prudential measures could dampen the demand for mortgage credit.**

This could reflect both the containment of speculative property investment and early participation in the mortgage market by first time buyers in expectation of future rapid price increases. Data presented by the Central Bank of Ireland indicate that the indirect effects of the macro-prudential measures can be observed in surveys of property market professionals. These indicate downward revisions of house price forecasts over one and three year horizons (graph 2.4.7). Notably, a large number of respondents cited the loan to value and loan to income limits as a key driving factor for their revisions.

**International capital and commercial real estate**

**Substantial international capital has entered the Irish property market in recent years.**

Foreign investors have shown a strong appetite for Irish real estate assets. In a number of cases, the National Asset Management Agency has disposed of assets to foreign investors, including under joint ventures with Irish firms and developers. In addition, a small number of large foreign developers with access to international capital have entered the Irish market. Finally, real estate investment trusts are also becoming an important, albeit limited, source of co-development equity finance for domestic developers and represent another important channel through which foreign capital enters the property market.

**Commercial property prices in Dublin have risen strongly, though not driven by credit extension.**

The cost of prime office space in Dublin rose by 22.3 % year on year in the fourth quarter of 2015, continuing the strong recovery observed in recent years, while commercial property values increased by 18.2 % year on year

in 2015. These price increases do not appear to be credit driven, but seem to result from strong demand for prime office space, including by multinational enterprises, and limited supply. International capital inflows also appear to be an important contributor.

**Current price pressures differ from those that led to the property bubble.** Current developments do not appear to represent a repeat of the pre-crisis commercial property boom. The Irish commercial real estate market structure has changed from strong banking sector dominance in the run-up to the crisis to one where new developments are financed largely by non-banks, predominantly via equity. Sectoral capital requirements introduced following the entry into force of the capital requirements regulation and directive could be having a dampening effect on bank credit supply, in addition to increased risk aversion with regard to the sector due to its central role during the crisis.

**Plans to compile reliable data on the commercial real estate market should help monitor and assess risks in the medium term.** The Central Statistics Office, in cooperation with the National Asset Management Agency, is working to collect data on commercial real estate market prices, which would greatly improve the ability of the authorities to monitor risks. At present the authorities are largely dependent on a number of potentially inconsistent data sources from market participants that are not ideal for monitoring purposes and they create uncertainty.

**Overall, the wide array of policy initiatives is indicative of the government's determination to address nascent issues.** The low level of private sector construction output appears to justify extensive action on the part of the authorities. The extent to which the announced measures will be effective and free of adverse unintended consequences will need to be monitored.

**In turn, the strength of the economic recovery highlights the value of the Central Bank of Ireland taking a proactive approach to fulfilling its macro-prudential mandate.** Along with fiscal policy, macro-prudential instruments form an important policy option available to the domestic authorities at a time when the economy is expanding much faster than the rest of the euro area.

## 2.5. MIP ASSESSMENT MATRIX

This macroeconomic imbalance procedure (MIP) assessment matrix summarises the main findings of the in-depth review in the country report. It focuses on imbalances and adjustment issues relevant for the MIP.

Table 2.5.1: MIP assessment matrix - Ireland (\*)

	Gravity of the challenge	Evolution and prospects	Policy response
	<b>Imbalances (unsustainable trends, vulnerabilities and associated risks)</b>		
<b>Private debt</b>	Private sector non-consolidated debt amounted to 266.3 % of GDP in Q2-2015, down from a peak of 327.1 % of GDP in 2012. In Q2-2015, household debt amounted to 81 % of GDP and non-financial corporations debt represented 185.3 % of GDP. Corporate debt levels are influenced by the activities of multinationals, which account for about two-thirds of non-financial corporations' debt. Indebtedness levels vary considerably depending on firm types and exposure to the property market. Younger households are highly indebted.	Household debt-to-GDP started declining in early 2010 already, and active deleveraging has continued at an accelerated pace in the past year. Deleveraging prospects are improving due to reduced debt and increased value of company and household assets. SMEs have borne the brunt of the deleveraging in the corporate sector. Overall, the deleveraging process has been aided by strong real and nominal GDP growth, job creation and rising earnings and corporate profits.	The authorities continue to encourage and monitor debt restructurings. Recent policy initiatives aim to increase the use of personal insolvency and bankruptcy schemes in dealing with household debt.
<b>Public debt</b>	Gross general government debt remains high at an estimated 98.4 % of GDP in 2015. The stock of debt is mostly of a long-term nature and at low interest rates, which mitigates the risks and reduces refinancing needs in the near term. As of end-2015, average debt maturity was 12.4 years. Government contingent liabilities – mainly related to bank bailout operations – amount to 13.3 % of GDP in 2014, still somewhat above the EU average.	Gross general government debt fell 9.1 pps. of GDP in 2015, in large part due to the surge of nominal GDP growth, low interest rates and primary surpluses. It is projected to fall to 91.5 % of GDP by 2017 on the back of robust growth and primary budget surpluses above 1 % of GDP in 2015 and 2016.  The general government deficit is projected to fall to 1.8 % of GDP in 2015, down from 3.9 % in 2014. The structural deficit is expected to decrease to around 0.9 % of GDP in 2017 from 3.1 % in 2014.  The maturity profile and interest burden of government debt has improved further with the refinancing of IMF loans.  Government contingent liabilities fell by nearly 18 percentage points of GDP between 2013 and 2014.	Headline deficit targets have consistently turned out below excessive deficit procedure targets, in part helped by higher than-expected GDP growth. The authorities plan to make appropriate progress towards the medium-term budgetary objective and the fiscal position is expected to improve further in 2016.
<b>Financial sector challenges</b>	Non-performing loans (NPLs) in the three main domestic banks decreased by 8.2 percentage points from their end-2013 peak to 18.9 % of the total in Q3-2015. The NPL ratio nevertheless remains among the highest in the euro area. Mortgages in arrears stood at 15.0 % of total mortgage loan balances in Q3-2015, with the balance of mortgage accounts in arrears of over two years declining over the previous quarter for the first time.  Net lending to the private sector remains weak, in part as a result of a subdued demand for credit, but also because of comparatively high interest rates that reflect credit risks of existing bank assets and market concentration.	Banks' funding profiles have normalised, with stable deposits, full access to market funding restored and lower reliance on central bank funding. Profitability also continues to improve.  The high stock of NPLs is declining and banks met their mortgage arrears resolution targets. The balance of mortgage accounts in arrears of over two years was 1 % less than the previous quarter. Progress is being made in implementing sustainable restructuring solutions and commercial loan restructuring and disposal continues.	Permanent TSB's capital raising on the market and the approval of its restructuring plan bode well for privatisation of the domestic banks, especially Allied Irish Banks, whose capital base restructuring is proceeding as planned.  Mortgage arrears resolution targets were replaced with a new bank-specific approach with granular monitoring of problematic loans.  Recent policy initiatives aim to increase the use of personal insolvency and bankruptcy schemes. Personal insolvency practitioners and representatives of the Money Advice and Budgeting Service are now present at court hearings to encourage the use of the personal insolvency procedure for mortgage restructurings.  New prudential measures aim to contain mortgage and housing risks. The establishment of a central credit register has been pushed back further.

(Continued on the next page)

Table (continued)

<b>External sustainability and competitiveness</b>	Ireland had a negative net international investment position (NIIP) of 78 % of GDP in Q3-2015. The general government sector had a negative net position of 60 % of GDP. Other sectors have very large assets and liabilities, but relatively small net positions. The International Financial Services Centre, in particular, has gross positions of almost 1 400 % of GDP, while multinational companies have gross positions of about 300 % of GDP.	Significant competitiveness gains have been achieved in recent years, including through increased labour productivity and moderation or falls in private and public sector wages. Competitiveness gains and demand shifts have contributed to external rebalancing and Ireland's current account position turned into surpluses driven mainly by the merchandise trade balance and the presence of re-domiciled private limited companies. Excluding the latter, Ireland's current account is closer to balance.	Debt management operations have further lengthened the maturity of public debt, which has itself fallen very significantly as a percentage of GDP over the past two years.
<b>Property market</b>	House prices increased by 12 % in 2015 in deflated terms, but this came after the collapse in house prices between 2008 and 2012. Residential property prices at the national level in October 2015 remain 33.5 % lower than the 2007 peak. At this stage, price levels do not look unsustainable according to standard measures.  Supply constraints are such that demand for new housing currently exceeds supply by a wide margin in main urban areas.	The pace of residential property price increases slowed over the course of 2015, with prices rising by 6.5 % y-o-y in November 2015, compared with 16.2 % in November 2014.  If not addressed, constraints limiting the construction sector and the supply of housing could contribute to imbalances building up.	The government announced measures to address housing supply constraints, such as revision of national building standards for apartments and a targeted rebate of development contributions paid by developers to urban local authorities. The Infrastructure and Capital Investment Plan aims to increase the construction of social housing while the National Asset Management Agency is also committed to delivering 20 000 homes by 2020.  The Central Bank of Ireland introduced macro-prudential measures such as loan-to-income and loan-to-value ratios that have reduced property inflation expectations.

---

#### Conclusions from the IDR analysis

---

- Ireland is characterised by a still large stock of external, public and private debt (both for households and non-financial corporations) which make Ireland vulnerable to adverse shocks. High debt is at the root of deleveraging pressures on both the government and the private sector. Banks still suffer from a high level of non-performing loans, but are well recapitalised and their profitability is improving even if it remains low.
- Stock imbalances have all evolved positively in the past year. The NIIP has fallen sharply over the past year and a half, but it remains elevated, mainly on account of the bailout of banks by the government. The current account is now in significant surplus, although the headline figure is inflated by the presence of re-domiciled private limited companies. House prices increased significantly in 2014, but less so in 2015. Supply constraints exist in the housing market. Public debt is on a steep downward trajectory and household and corporate debt is also falling. The NPL ratio fell by 7.3 percentage points from the peak and the balance of longest-term mortgage arrears decreased for the first time in Q3-2015. The evolution of house prices does not represent a concern yet, but deserves attention.
- Policy measures have been taken in recent years to address all imbalances highlighted in the IDR, including in the banking sector (bank restructurings and recapitalisations, improved regulatory framework, measures to address NPLs) and through fiscal consolidation. Competitiveness has been regained and measures have been adopted to minimise the risk of imbalances building up in the property market. The government is taking measures to address supply constraints in the housing markets.

(\*) The first column summarises 'gravity' issues which aim at providing an order of magnitude of the level of imbalances. The second column reports findings concerning the 'evolution and prospects' of imbalances. The third column reports recent and planned relevant measures. Findings are reported for each source of imbalance and adjustment issue. The final three paragraphs of the matrix summarise the overall challenges, in terms of their gravity, developments and prospects, policy response.

---

Source: European Commission

---

## 3. ADDITIONAL STRUCTURAL ISSUES

In addition to the imbalances and adjustment issues addressed in section 2, this section provides an analysis of other structural economic and social challenges for Ireland. Focusing on the policy areas covered in the 2015 country-specific recommendations, this section analyses issues related to SME development and access to finance, labour market, education and social issues, infrastructure needs, taxation and the fiscal framework, and healthcare.

### 3.1 SME DEVELOPMENT AND ACCESS TO FINANCE

#### Access to finance

**Irish small and medium-sized enterprises report higher turnovers and profit, as well as job growth.** The RED C SME Credit Demand Survey reports that 47 % of firms saw their trading conditions improve and 61 % were profitable in the six months to September 2015. Over the past year, the percentage of firms hiring staff has also been increasing. One in five medium-sized companies (50 employees or more) is focused on rapid growth while only 1 % reports to be struggling. Conditions for the smallest firms are less favourable with about 10 % of micro firms looking to grow and an equal percentage in a survival mode. A similar pattern is reflected in the business climate outlook, with larger firms more optimistic on their future prospects.

**Investment levels are rising and mostly financed by firms' internal resources as business consolidation continues.** According to the RED C survey, the median amount of investment has been increasing since March 2014. Over 70 % of investment was made using own funds. Most SMEs indicated that they do not ask for bank credit because it is not needed.

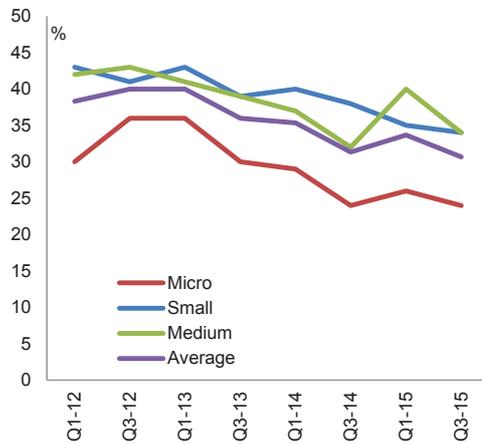
**Domestic banks report an initial pick-up in credit demand.** Domestic banks increased new lending by EUR 1.6 billion or 38 % in the year to September 2015. Gross new SME lending increased 30 % in the year to June 2015 <sup>(31)</sup>, with noticeable demand from primary industries, including agriculture and real estate. However, loan repayments continue to outpace new borrowing, resulting in decreasing values of outstanding credit.

**Survey data also hint at a renewed use of bank financing.** The 2015 Survey on the access to finance of enterprises (SAFE survey) reveals an increase in the use of bank loans (from 9 % in 2014 to 17 % of SMEs in 2015) and bank overdrafts/credit lines (from 50 % to 61 %). Survey data on credit demand varies. The RED C survey indicates that SME bank credit applications have been stabilising over the last few survey periods with about 30 % of SMEs applying for bank finance in the period from April to September 2015 (graph 3.1.1). The largest credit demand rebound occurred in the manufacturing and hotels & restaurants sectors, while credit demand from other sectors remains subdued. The euro area bank sending survey in 2015 shows that banks saw an increase in demand and expect this to continue. The banks themselves report that enterprises are starting to borrow again. Encouragingly, rejected applications have been less frequent over the past year. The increase in the percentage of firms indicating that they obtained the full amount of the credit requested from their bank is another clear indication of the improvement in bank financing conditions. The SAFE Survey reports that 58 % of SMEs surveyed in Ireland report having received the full amount of the credit requested, up from 45 % in 2014.

---

<sup>(31)</sup> Comparison of the period between Q3-2014 to Q2-2015 and the preceding 4 quarters. The numbers exclude lending to financial intermediation enterprises. Source: CBI.

Graph 3.1.1: SME credit demand



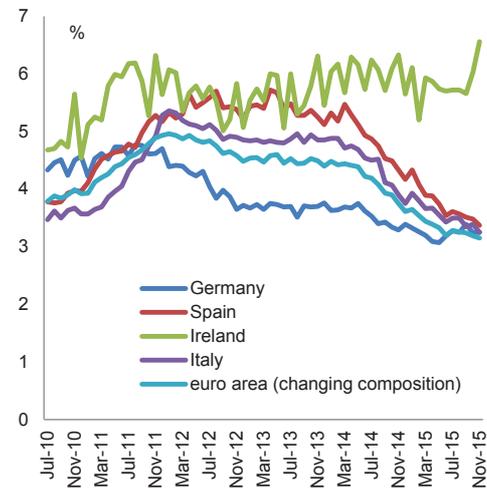
Source: RED C SME Credit Demand Survey

**Credit is still sought mainly for working capital use rather than growth, but the rate of borrowing for investment is picking up.** The bank lending survey indicates that fixed investment (demand for long-term loans) and accumulation of working capital are the main factors affecting loan demand.

**The concentrated SME lending market translates into higher interest rates than the euro area average.** The Irish SME lending market effectively remains a duopoly. Interest rates on new SME loans fell to about 4.6 % in the third quarter of 2015 compared with 5.1 % at the end of March 2015, but they were still high compared with the average interest rate on outstanding SME loans of 3.1 % and compared with interest rates on loans for larger firms in Ireland. In November 2015, the average small corporate loan<sup>(32)</sup> interest rate for new business in Ireland was substantially higher than the euro area average, at 6.6 % vs 3.2 % (graph 3.1.2). The Central Bank of Ireland also reports that the average cost of funding depends largely on the economic sector. Perhaps surprisingly, only 1 % of SMEs identify the cost of borrowing as the main impediment to seeking bank loans.

<sup>(32)</sup> Loans up to EUR 1 million at floating rate and up to 1 year initial rate fixation are used as a proxy for SME lending. Source: ECB

Graph 3.1.2: Interest rates on SME loans



(1) The Irish SME interest rate in February 2015 was 3.13 % which is clearly a significant outlier. The mean of January and March was applied for the month of February in order to account for this abnormality.

Source: Central Bank of Ireland, European Central Bank

**SMEs still prefer bank loans to non-bank financing.** Non-bank financing sources such as equity financing, crowdfunding and venture capital have been encouraged by the public sector and feature in the Enterprise 2025 policy strategy presented in November 2015. These specialised forms of financing do not yet seem to be replacing bank credit in a significant way<sup>(33)</sup> even though, according to the SAFE survey, 27 % of SMEs note that the availability of equity capital improved in 2015 (compared with 13 % in 2014). Venture capital expressed as a percentage of GDP has been increasing since 2010 and in 2014 it was double the EU average (0.048 % vs. 0.024 %). The general reluctance to alternative financing is the result of a long-time reliance on banks and to some extent also to low levels of financial literacy. On the other hand, firms report a lack of expertise and excessive risk-averseness on the side of banks, resulting in higher rejection rates. They also complain about the banks' frequent demands for additional personal guarantees on SME lending, especially for younger and more innovative

<sup>(33)</sup> One exception might be trade credit, which is used more frequently as a source of financing: 51 % of SMEs report having used this source of financing in 2015 compared with 22 % in 2014. This is well above the EU average of 20 %. Source: December 2015 SAFE survey.

companies<sup>(34)</sup>. Updates to the Code of Conduct for Business Lending to SMEs aim to address some of the SME stakeholder concerns, namely a greater transparency around credit applications and refusals, protection of guarantors and expansion of the grounds for appeal. In addition, it should provide enhanced protection to micro and small enterprises.

**Although improving, the use of public SME financing initiatives remains sub-optimal.** The SAFE survey reports that close to one in five Irish SMEs considers that access to public financial support improved in 2015, compared with 10 % last year. The Strategic Banking Corporation of Ireland was created to channel lower cost loans to SMEs through on-lenders, increase the number of lenders in the market and diversify the types of loans available to SMEs. It began its activities in March 2015. Around 3 200 SMEs had borrowed EUR 110 million from the Strategic Banking Corporation by November 2015. This is encouraging, especially because only 23 % of SMEs reported being aware of its existence. Most of these loans are for investment purposes, and the largest group of borrowers comes from the agricultural sector. The Strategic Banking Corporation of Ireland has EUR 800 million to lend and its statutes allow for up to an extra EUR 5 billion of funds, if needed. Little information is available so far on the extent to which on-lenders pass cheaper funding costs to SMEs, but there is evidence of differing practices among lenders. The Ireland Strategic Investment Fund, set up at the end of 2014 with funds equivalent to about 3.5 % of GDP, had concluded 17 transactions by November 2015. Its mandate is to provide debt and equity financing to commercially viable projects, including SMEs. Recourse to the Credit Review Office remains limited, in spite of it upholding a majority of SME appeals against credit refusals<sup>(35)</sup>. Numerous firms report that banks do not provide information regarding the Credit Review Office or the

financing options available through the Strategic Banking Corporation of Ireland.

### Business environment

**Ireland's business climate is generally favourable.** According to the World Bank's report Doing Business 2016, Ireland offers a very favourable environment for business, ranking 17th best in the world, two places better than in 2015 and fourth best among EU Member States. In spite of a generally commendable regulatory record, a recent survey of Irish businesses<sup>(36)</sup> indicates that red tape and the cost of regulatory compliance remains a significant cause of concern for the businesses that responded, particularly those with fewer than 100 employees. Lack of national rules or procedures on cross-border transfers can also contribute to weakening the business environment<sup>(37)</sup>.

### The Companies Act 2014 further improves the business and investment regulatory framework.

The Act, which came into effect on 1 June 2015, simplifies many aspects of company law, reduces the burden on businesses and promotes good corporate governance. It set out two new company models, including a simplified private limited company. All existing private companies limited by shares will have to opt for conversion into one of these models by August or November 2016. The simplified private limited company model should facilitate the establishment and running of such companies. For example, companies choosing this model can use a simple one-document constitution, engage in any lawful activity, do not need authorised share capital, are allowed to have one director and are entitled in certain cases to adopt written procedures in place of general meetings. The new provisions also make it possible for private limited companies to merge and divide. They also simplify the accounting and audit obligations for SMEs. Corporate governance should be strengthened, for instance, as a result of the codification of directors' fiduciary duties and

<sup>(34)</sup> In the period 2012-2014, one third of new SME loans entailed personal guarantees. Source: Carroll, J., McCann, F., O'Toole, C., 'The use of personal guarantees in Irish SME lending', Economic Letters 06/EL/15, Central Bank of Ireland.

<sup>(35)</sup> Out of 394 applications reaching the final CRO conclusion stage, 219 or 56 % have been upheld in favour of the borrowers.

<sup>(36)</sup> Red Tape Survey 2015, conducted by RED C for LK Shields.

<sup>(37)</sup> The direct cross-border transfer of registered offices (of Irish companies abroad or of foreign companies to Ireland) is not possible under Irish law except for European companies, making it more difficult for companies to relocate and seize business opportunities.

the obligation for directors — of public limited and large private limited companies — to produce an annual compliance statement on how they intend to secure compliance with certain provisions of company and tax laws.

**Specific regulatory concerns of SMEs remain insufficiently considered.** A number of measures are in place to ensure that policymakers take SME interests into account, including through consultations. However, implementation is incomplete. While Ireland conducts regulatory impact assessments, the number of assessments has been low in recent years and issues remain regarding their quality and timeliness. In addition, key ‘think small first’ principles are yet to be fully implemented, including the SME test and common commencement dates. These are currently the subject of discussion between government and SME stakeholders, who are keen to see them implemented.

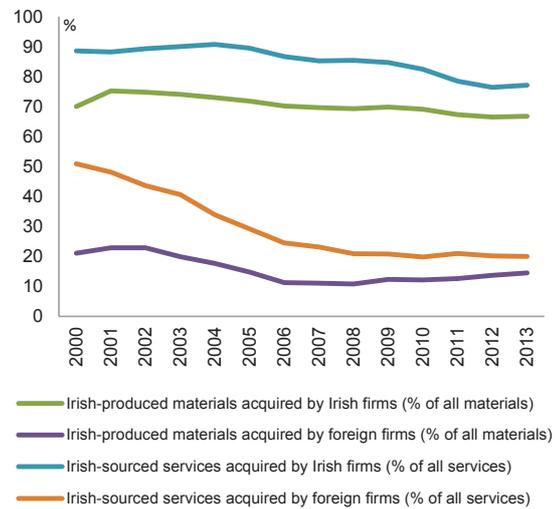
### SME performance

**The productivity of micro and small firms trails that of larger firms.** There are significant differences in business conditions and performance between indigenous firms of different sizes and Irish affiliates of multinational enterprises. While Irish SMEs account for 99.7 % of all firms, they represented only 46.7 % of total gross value added in 2012, a reflection of the extremely high productivity of Irish affiliates of multinational enterprises. Labour productivity data, albeit partial, also show that large firms (above 250 employees) are about three times more productive than SMEs of fewer than 10 employees <sup>(38)</sup>.

**Multinational enterprises operate partly as an enclave with limited linkages to indigenous firms.** A rising share of multinationals’ business services is sourced from abroad. As far as business services are concerned, there has been increasing disintegration in trading between Irish business services providers and multinationals established in Ireland. While foreign multinational enterprises acquired 50 % of total expenditure in business services from Irish suppliers in 2000, this percentage dropped to 20 % in 2013 (graph 3.1.3).

<sup>(38)</sup> Data refer to 2012. Source: Business in Ireland, December 2014.

Graph 3.1.3: Purchases of inputs in Ireland by Irish indigenous and foreign firms (2010-2013)



Source: Department of Jobs, Enterprise and Innovation

**The SME export performance continues to improve.** Ireland is the leading EU performer when it comes to SME internationalisation, with over 31 % of Irish SMEs exporting beyond EU borders, compared with the EU average of 10.7 %. Although the costs required to import and export are slightly higher than in the rest of the EU, the time and number of formalities required to trade with the rest of the world are well below the EU average. Trading activities of Irish SMEs within the single market are also above the EU average. This is partly a result of a significant reduction in the procedures and time to trade, as well as the foreign earnings deduction that has allowed firms to materialise benefits from exports. This scheme for export led growth will be prolonged with a view to increasing the growth of Irish-owned firms by 6-8 % annually up to 2020, according to the Enterprise 2025 strategy. This should increase the export intensity of Irish firms from 55 % to 60 % in that period by diversifying the destination of Irish exports.

### R&D and SME development

**R&D activities are dominated by multinational companies.** The technology divide between SMEs and multinational companies is very clear. The latter account for about 70 % of private R&D, with activities focused in IT services and pharmaceuticals. In addition, multinational corporations not only conduct R&D in Ireland, but

also lodge intellectual property applications in Ireland for research conducted abroad, which increases their intangible capital. In contrast, while Irish SMEs introduce more product, process, marketing and organisational innovations than the EU average, evidence does not seem to show major market benefits from such R&D investments. The percentage of sales of new-to-market or new-to-firm innovations is lower in Ireland than in the rest of the EU (9.3 % versus 12.4 %). Overall, R&D spillovers between SMEs and multinational corporations are relatively limited.

**SMEs are highly dependent on public R&D support for their own innovation prospects.**

This makes them vulnerable to the significant reduction in public R&D spending that occurred during the crisis. While such spending stabilised in 2013 and increased slightly in 2015, the Infrastructure and Capital Investment plan (section 3.4) does not envisage significant increases in public R&D spending. In addition, R&D expenditure by higher education institutions was also cut considerably during the crisis and the level of industry-academia collaboration — as measured by the amount of public research financed by the business sector — is relatively low<sup>(39)</sup>. Improving this type of cooperation remains a key challenge for Ireland.

**A number of policy initiatives seek to foster R&D and its business impact.** Enterprise Ireland and the Science Foundation Ireland recently introduced new cooperation agreements for SMEs and an SME-specific scheme to foster R&D has been operational since 2014. The Action Plan for Jobs 2015 provided for five new calls for this scheme during the year<sup>(40)</sup>. The creation of Knowledge Transfer Ireland as a central technology transfer office aims to accelerate the commercial exploitation of research knowledge.

<sup>(39)</sup> Public expenditure in R&D financed by business enterprises was 0.007 % of GDP in 2013 vs 0.051 % for the EU average.

<sup>(40)</sup> The Action Plan for Jobs has been at the core of government efforts to foster job creation and improve the business environment and competitiveness since its first iteration in 2012. It establishes a series of concrete actions to be adopted throughout government every year and is revised annually. The Action Plan for Jobs 2016 was adopted in January and envisages a large number of new actions (section 3.2).

Innovation 2020, a five year strategy for R&D, science and technology was released in December 2015 and reflects the need for funding to be more effective in priority areas. In addition, the 2016 budget introduces an entrepreneurial package with an extension of the start-up corporation tax exemption, enhancements to tax incentives for investing in businesses and a reduction of capital gains tax for entrepreneurs. New tax credits for the self-employed are also to be introduced, but will remain less favourable than those for employees. These initiatives contribute to advancing the Recommendation on the economic policy of the euro area, in particular in terms of productivity, job creation and competitiveness.

**Legal services reforms**

**The regulatory model for legal professions has finally been overhauled.** Enactment of the Legal Services Regulation Bill was made possible in December 2015 following significant concessions to the Law Society and Bar Council. An unusually high number of amendments were introduced late in the legislative process, touching upon major issues such as complaints, limited liability partnerships, membership of the Law Library, indemnity insurance, and financial and accounting oversight of solicitors.

**The proof of the pudding will be in the eating.**

Some of the concessions made to the legal professions have significantly reduced the initial ambition of the reform. This will affect the prospects of allowing the entry of innovative players and enhancing competition, including as a result of more stringent insurance requirements and a ban on corporate bodies taking part in possible multidisciplinary practices. The new regulatory framework nevertheless opens the door to new modes of operation and competitive pressures, and it establishes the oversight of legal services professions by an external body. It should therefore contribute to reducing high legal services costs, though it is too early to be fully confident that the new framework will be effective. Much will depend on the ability of the Legal Services Regulatory Authority to assert its independence and its ability to defend society at large against vested interests, particularly through its regulations and recommendations, following public consultations required to complement the reform in key aspects. It is encouraging that a review clause

was introduced late in the process to require the Authority to conduct a review of the operation of the Act no later than two years after its establishment and at least every three years subsequently.

**Despite some improvement, comprehensive monitoring of the justice system remains a challenge.** Following the introduction of an ICT case management system in 2015, data on incoming and resolved cases for first instance courts are now available, enabling the monitoring of how courts keep up with the current workload. Clearance rates were the lowest in the EU in 2014, with courts resolving less than 60 % of the litigious civil and commercial cases received. However, this is partly because the current system takes into account non-active cases, which do not add to the workload of the courts. The new ICT system measures average length of court cases and it is essential to extend it also to higher instance courts. In addition, the monitoring and evaluation of court activities as well as quality standards (e.g. time frames and backlog management) are lacking and could be improved (see forthcoming 2016 EU Justice Scoreboard). ICT tools and quality standards that comprehensively cover the whole justice system are essential for the good functioning of courts, as they contribute to a timely handling of cases, contributing to an attractive business environment.

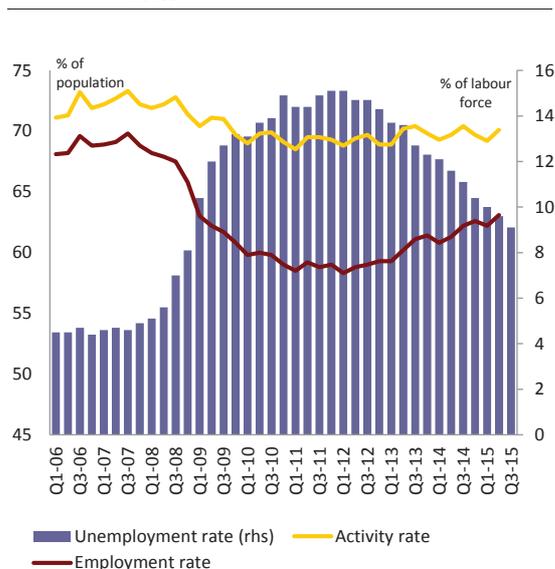
## 3.2. LABOUR MARKET, EDUCATION, SOCIAL POLICIES AND INCLUSIVE GROWTH

### Labour market

**High economic growth has pushed the unemployment rate below the EU average.**

Ireland added more than 135 000 jobs in the three years to the third quarter of 2015 (an increase of almost 7.5 %). Following a surge in the unemployment rate, (a peak of 14.9 % in early 2012), there was a steady improvement to a level of 9.1 % in the third quarter of 2015, slightly below the EU average of 9.3 % and well below the euro area average of 10.8 %. The employment rate (20-64 age group) at 69.1 % in the third quarter of 2015, was up almost 1.5 percentage points from the same period in 2014.

Graph 3.2.1: Activity, employment and unemployment rates

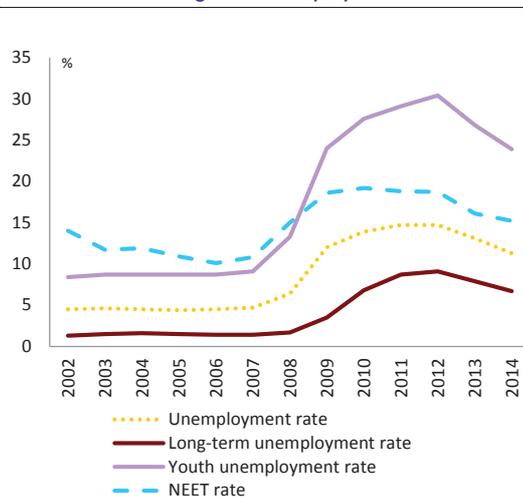


(1) Activity and employment rates (% of population), total, ages 20-64. Unemployment rate (% of labour force), total, ages 15-74.

Source: Eurostat, Labour Force Survey

**The situation also continues to improve for young people.** Youth unemployment (15-24 age group) has fallen decidedly in the last year and stands at 20.7 % in Q3-2015, slightly above the EU average of 19.9 %. This is a significant drop from the peak of 33 % in mid-2012. The situation is also improving for young people not in employment, education nor training (NEET), with the rate dropping to 15.2 % in 2014. Yet it still remains 2.7 percentage points above the EU average.

Graph 3.2.2: Unemployment, youth unemployment, NEET and long-term unemployment rates



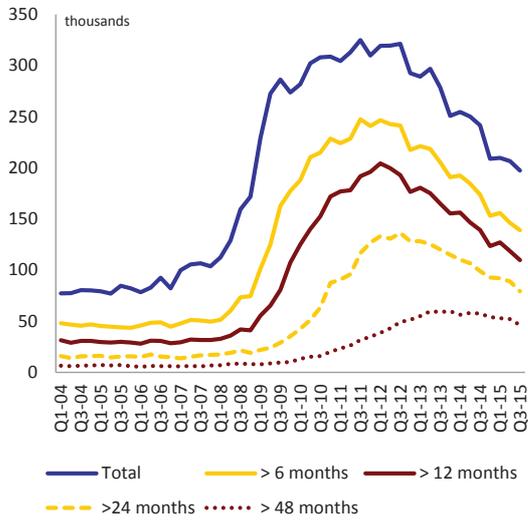
(1) Unemployment rate and long-term unemployment rate (% of labour force), total, ages 15-74. Youth unemployment rate (% of labour force), total, ages 15-24. NEET: Not in employment, education or training (% of population), total, ages 15-24.

Source: Eurostat, Labour Force Survey

**Despite improvements, long-term unemployment remains a concern.** The long-term unemployment rate fell to 5.2 % in Q3-2015 as the labour market strengthened. This represents a 20 % reduction since Q3-2014 (6.6 %) and demonstrates that long-term unemployment is falling at a similar rate to unemployment. However, the proportion of long-term unemployed in total unemployment remains high at 55.6 % in Q3-2015, exceeding the EU average of 48.2 %. This partly reflects the difficulties that redundant workers with construction sector skills have had in transferring to other types of employment <sup>(41)</sup>. The high prevalence of long-term unemployment means that the workers affected are at great risk of losing tangible and intangible skills, which could have a lasting effect on their ability to regain employment.

<sup>(41)</sup> In 2014 the unemployment rate for former construction sector workers remained high at 21 %. Source: [National Skills Bulletin 2015](#) by the Expert Group on Future Skills Needs.

Graph 3.2.3: Unemployment by duration

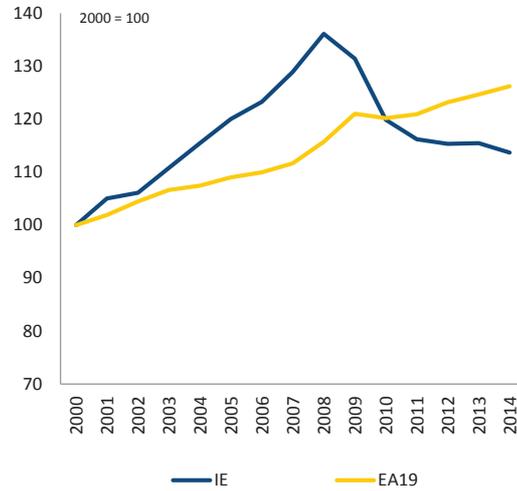


(1) Unemployment (thousand), total, ages 15-74, non-seasonally adjusted.

Source: Eurostat, Labour Force Survey

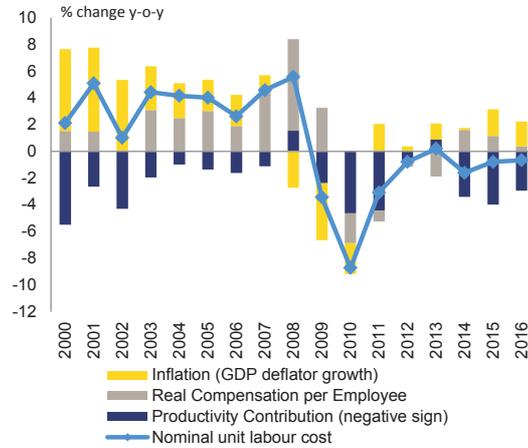
**Wage developments have continued to support labour market adjustment.** Between 2000 and 2008, nominal unit labour costs grew by about 20 percentage points more in Ireland than in the euro area. In contrast, unit labour costs have fallen significantly since 2008 while they continued to increase in the euro area (graph 3.2.4). The adjustment was sharpest in the early phase of the crisis (2009-2011) amid falling prices and very low or at times negative nominal wage growth (graph 3.2.5). Productivity growth also contributed significantly to the downward adjustment in unit labour costs. Initially, productivity rose as firms were downsizing and shedding labour. More recently, however, productivity has continued to increase while the economy is in full recovery mode and adding jobs. Although nominal wages are starting to increase again, continued productivity growth is expected to hold down unit labour costs in 2015 and 2016.

Graph 3.2.4: Nominal unit labour costs



Source: Eurostat, National Accounts

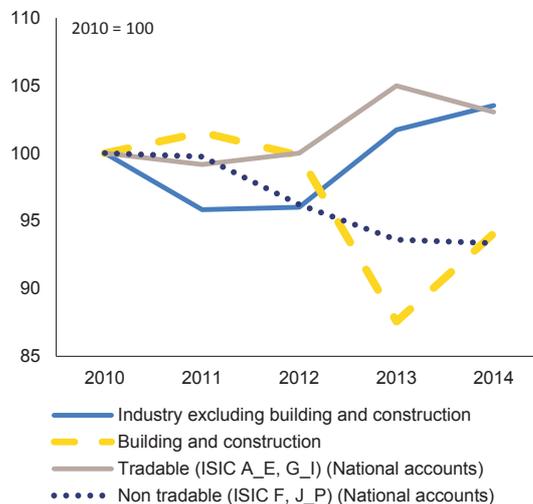
Graph 3.2.5: Decomposition of the rate of change of ULC



Source: AMECO database including European Commission forecasts

**The rebalancing of the Irish economy has also been supported by differential wage developments in tradable and non-tradable sectors.** Between 2010 and 2014, unit wage costs have fell in non-tradable sectors, including construction, and increased in tradable sectors, including industry (graph 3.2.6).

Graph 3.2.6: Nominal unit wage costs by sector

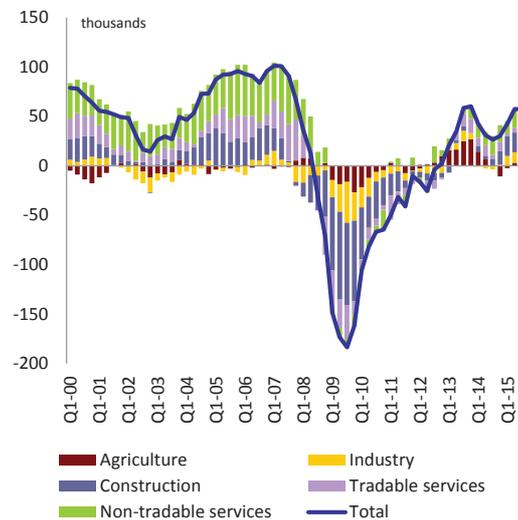


Source: Eurostat

**The adjustment is observable, albeit somewhat less significant, in employment patterns.** While tradable services, agriculture and industry contributed to the employment growth of the period since 2013, so did non-tradable services and, in the last quarters of available data, construction (graph 3.2.7).

**The recovery has improved employment and unemployment rates of all skill groups, but a significant share of lower skilled workers remains discouraged.** Since 2012, the unemployment rate of all skill groups has fallen by about two fifths of previous increases (calculations based on age group 20-64; see graph 3.2.9). The improvement is reflected in the recovery of employment rates (graph 3.2.8). But activity rates of medium and low skilled workers remain about 5 percentage points below their level in 2007 as compared to about 2 percentage points for high skilled (calculations based on the age group 20-64). It implies that many lower skilled individuals, who had stopped searching for employment, remain discouraged. Nevertheless as the composition of the workforce is shifting towards the high skilled who have a higher activity rate, the overall activity rate in Ireland is below its 2007 level by only about 1 pp.

Graph 3.2.7: Employment by sector, year on year changes



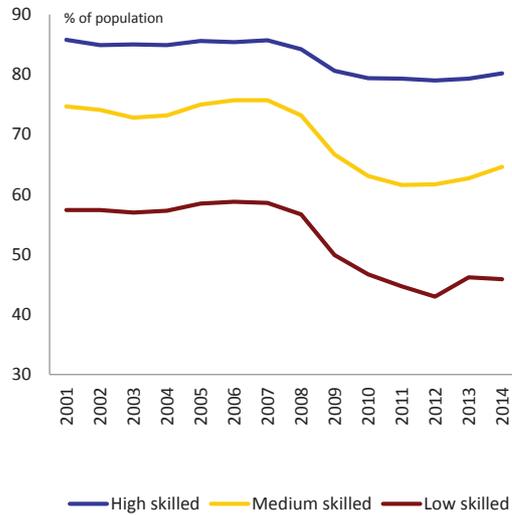
(1) Employment - domestic concept (thousand), year-on-year change based on non-seasonally adjusted data. Sectors: NACE rev2.

Source: Eurostat, Labour Force Survey

**As a result of a deeper downturn and a somewhat weaker recovery for lower skilled workers, skills mismatches increased in the Irish labour market.** In an EU comparison, Ireland was one of the EU Member States with the highest disparity of both employment and unemployment rates by skill groups in 2014, despite recent labour market improvements<sup>(42)</sup>. In 2014, Ireland had the third highest relative dispersion of employment rates, and the seventh highest relative dispersion of unemployment rates, across skill groups.

<sup>(42)</sup> See the analysis of Aron Kiss and Anneleen Vandeplass: 'Measuring skill mismatch', Analytical web notes 7/2015, European Commission, Directorate General for Employment, Social Affairs and Inclusion, <http://ec.europa.eu/social/main.jsp?catId=738>.

Graph 3.2.8: Employment rate by educational attainment

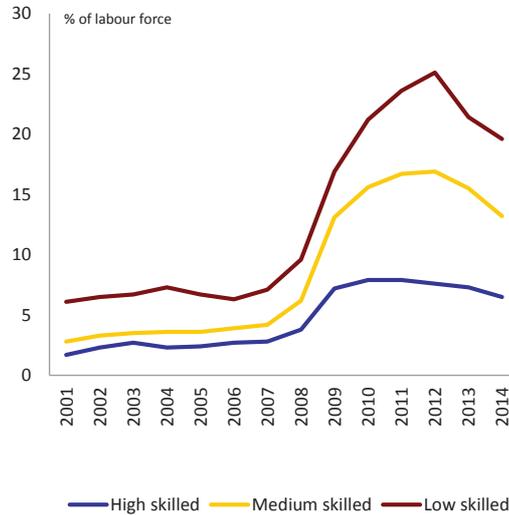


(1) Employment rates ages 20-64. Low skilled: individuals with highest educational attainment of ISCED levels 0-2 (less than upper secondary); Medium skilled: ISCED levels 3-4 (upper secondary); High skilled: ISCED levels 5-8 (tertiary or higher).

Source: Eurostat, Labour Force Survey

**As the labour market recovery continued throughout 2015, skills shortages are being observed in a greater number of occupations and sectors compared with recent years.** The National Skills Bulletin highlights skills shortages are intensifying in previously identified areas such as ICT, engineering, sales/customer care, logistics, health, and business and finance. Shortages are now also emerging in new areas such as hospitality and construction. With improved job prospects across all sectors of the economy, issues with attracting and retaining staff are emerging.

Graph 3.2.9: Unemployment rates by educational attainment



(1) Unemployment rates ages 20-64. Low skilled: individuals with highest educational attainment of ISCED levels 0-2 (less than upper secondary); Medium skilled: ISCED levels 3-4 (upper secondary); High skilled: ISCED levels 5-8 (tertiary or higher).

Source: Eurostat, Labour Force Survey

**Concerns remain about the effectiveness of existing activation policies and employment support schemes.** The Back to Education Allowance has been considered ineffective as an active labour market measure <sup>(43)</sup>. Individuals who took up courses while unemployed in 2008 had lower levels of employment up to six years later than those who did not. The government has already taken forward some measures to address shortcomings identified in the evaluation <sup>(44)</sup>.

**Under the Pathways to Work strategy, a range of new active measures have been introduced and there is a shift towards programmes targeted primarily at the long-term unemployed.** The integration of benefits and employment services through the Intreo job centres has been a big step towards better tailoring support

<sup>(43)</sup> Elish Kelly, Seamus McGuinness, John R Walsh, An Evaluation of the Back to Education Allowance, Economic and Social Research Institute (ESRI, 2015), <https://www.esri.ie/publications/an-evaluation-of-the-back-to-education-allowance-2/>

<sup>(44)</sup> These include having case officers vetting for labour market relevance all applications of intended courses of education of participants. Payment rates have also been standardised with Jobseeker payments.

to individual needs, following an initial profiling. The latest version of the strategy, published in January 2016, highlights 86 actions to enhance the provision of services to jobseekers, including to those traditionally excluded from the labour market, to make work pay and to engage with employers to provide greater opportunities. Further evaluations of the Intreo activation process and the JobBridge scheme are set to be carried out in 2016 and these will be followed with evaluations of other activation programmes, e.g. Back to Work Enterprise Allowance, Community Employment and Community Work Placement Initiative (TÚS). This increased evaluation activity is a positive development as it will aid further alignment of the programmes to the needs and employability of participants. These initiatives contribute to advancing the Recommendation on the economic policy of the euro area, in particular in terms of policies to help the unemployed re-enter the labour market.

**The JobPath programme, designed to integrate the long-term unemployed into the labour market, has begun its roll-out.** It remains to be seen how the private sector approach will differ from that of Intreo, what profile of claimants they will be working with, and their ability to harness links with employers and provide more effective services (with both activation and social inclusion components). The effective rolling out of the programme to tackle long-term unemployment will be necessary to meet ambitious numerical targets.

**Ireland continues to implement the Youth Guarantee and is experiencing positive results in relation to youth unemployment.** The completed roll-out of Intreo one-stop-shops has resulted in a more effective engagement process with young unemployed people. Reforms to the further and vocational education and training sector are also continuing and are aimed at ensuring that training and apprenticeships are relevant to labour market needs. JobsPlus Youth, an employment subsidy paid to employers to encourage the hiring of young jobseekers who have been unemployed for more than four months, has been introduced. In February 2015, the First Steps Youth Development Internship was introduced to help young people develop basic work and social skills on a work placement of 6-9 months duration. These schemes are welcome additions to the Youth Guarantee but uptake and

employer involvement will need to be increased to generate a significant impact.

**The Action Plan for Jobs coordinates efforts to foster job creation.** The latest version of the plan (published in January 2016) sets a target to create 200 000 net additional jobs by 2020. The plan details over 300 actions aimed at delivering skills for a growing economy, increasing labour market participation and supporting the regions in reducing unemployment. As in previous versions, the preparation of the plan benefited from strong engagement and inputs from social partners. In addition, the government will engage employers in the implementation of the plan and will monitor progress through a governance structure comprising key government departments, including the Department of the Taoiseach, and the recently adopted assessment framework. The initiatives under the Action Plan for Jobs contribute to advancing the Recommendation on the economic policy of the euro area, in particular in terms of productivity, job creation and the business environment.

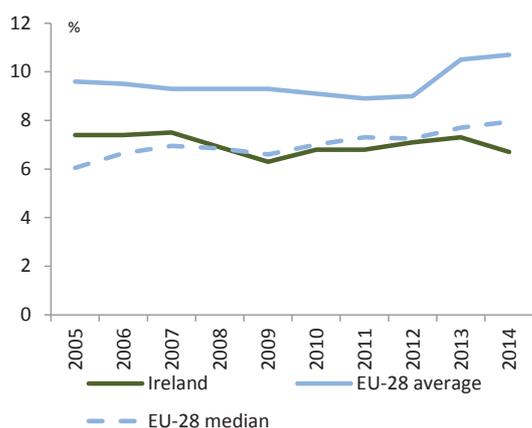
### Education and training

**Ireland performs well on early school leaving and has clearly improved in basic skills.** Early school leaving has been falling consistently since 2009 to a rate of 6.9 % in 2014. This represents one of the lowest rates in the EU and Ireland has met its Europe 2020 national target of 8 %. Ireland's 15 year-olds scored significantly above the OECD average in mathematics, science and reading according to the 2012 results of the OECD Programme for International Student Assessment (PISA).

**However, continuously falling public funding has an impact on the education sector.** General government expenditure on education as a share of GDP has decreased from the pre-crisis peak of 5 % in 2009 and the 2013 figure of 4.1 % was one of the lowest in the EU. The decrease in expenditure has had a negative impact on specific measures, in particular the increase in the student-teacher ratio in many schools, a reduction in the allocation of language support and the withdrawal of both the Visiting Teacher Service and Resource Teachers for Travellers. This could in turn have a negative impact on the quality of educational outcomes in the future.

**Upskilling and reskilling opportunities remain insufficient.** The participation of upper secondary students in vocational education and training fell from previous years at 32.2 % in 2012, compared with the EU average of 51.4 %. In 2013, the employment rate of recent upper secondary graduates was at 55.9 %, well below the EU average of 69.4 % <sup>(45)</sup>. The participation rate in adult learning was down to 6.9 % in 2014 from 7.3 % in 2013 a departure from the positive trend of previous years, and still well below the EU average of 10.7 % (graph 3.2.10). Some skills shortages have already emerged with the renewed economic growth and the dynamism of the ICT sector.

Graph 3.2.10: Participation in adult learning



(1) Percentage of adult population aged 25-64 participating in education and training in the four weeks before the survey was taken.

Source: Eurostat, Labour Force Survey

**In response, in January 2016 the Irish authorities launched a National Skills Strategy covering the period to 2025.** The strategy sets out the steps to be taken in order to develop a well skilled, adaptable workforce with the knowledge and skills needed to participate fully in society and the economy. Key objectives include increasing the provision of skills development opportunities that are relevant to the needs of learners, society and the economy, enhancing teaching and learning at all stages of education and enabling employers

<sup>(45)</sup> However, this must be seen in the context of the high rate of students going on to higher education, and a concentration of vocational education training at post-secondary rather than secondary level.

to actively participate in the development of skills to improve productivity and competitiveness.

**Further education and training programmes are adjusting progressively.** The Further Education and Training Authority (SOLAS) is implementing its five year strategy as planned in coordination with Education and Training Boards (ETBs). New service planning models with ETBs enable a better use of labour market intelligence as provided by the Expert Group on Future Skills Needs. Outcome-based funding models are also being introduced on a pilot basis for some ETBs. These reforms are designed to ensure that an appropriate institutional framework is in place to provide relevant upskilling and reskilling opportunities for learners. They also contribute to advancing the Recommendation on the economic policy of the euro area, in particular in terms of comprehensive lifelong learning strategies.

**In addition, 25 new types of apprenticeship are in development.** Following an evaluation process undertaken by the Apprenticeship Council – actively involving social partners, further education bodies and the Department of Education and Skills – the new types of apprenticeships selected have been tailor-made to labour market needs. They range in duration from two to four years, and will be offered at Levels 4 to 7 on the European Qualifications Framework (ISCED 3-7). This is the first time that apprenticeships will be available at graduate level in Ireland. If properly implemented, the introduction of these new apprenticeships has the potential to contribute to the ambitious National Skills Strategy commitment to support 50 000 modern apprenticeship and traineeship places by 2020 and to address skills needs and shortages in relevant sectors.

**Ireland has a particularly high tertiary attainment rate but access and equity in tertiary education are problematic for disadvantaged socioeconomic groups.** Ireland's tertiary education attainment (30-34 year-olds) is well above the EU average (52.2 % in 2014, compared with 37.9 % for the EU). However, young people with a more disadvantaged socioeconomic background are less likely to attend university given their insufficient educational achievement at upper secondary school and

financial constraints<sup>(46)</sup>. Young people who attended socially mixed schools and students from a middle income background were more likely than those from more disadvantaged schools to go on to post-secondary education and training<sup>(47)</sup>.

**Reforms aimed at addressing social inequalities in education are advancing.** The authorities continued the roll-out of the national literacy and numeracy strategy. The Delivering Equality of Opportunity in Schools action plan for educational inclusion is Ireland's policy instrument for addressing early school leaving, low achievement and educational disadvantage. Its evaluation shows positive results both on early school leaving and low achievement in basic skills. A significant reform is also underway in Ireland's junior cycle (lower secondary) education. In 2015, a package of reforms entitled Supporting a Better Transition from Second Level to Higher Education was presented and a new National Plan for Equity of Access to Higher Education was launched in December 2015.

### Social policies

**Relative poverty and income inequality have increased, though social transfers continue to shelter the most vulnerable and reduce poverty rates in Ireland.** In 2014, the at risk of poverty rate increased to 15.3 % from 14.1 % in 2013, in part due to rising median incomes. Relative poverty remains below the EU average of 17.2 % and it is significantly reduced by social transfers. The at risk of poverty rate before social transfers stood at 48.9 %. The impact of social transfers reduced this rate to 15.3 %.

**Nevertheless, despite the improving economic and labour market situation, challenges remain.**

The proportion of people living in households with very low work intensity continues to be high<sup>(48)</sup>. The rate, which was already high at the onset of the crisis at 13.7 % in 2008 versus an EU average of 9.1 %, fell from 23.9 % in 2013 to 21.0 % in 2014, but it remains almost double the EU average. Children in low work intensity households are directly affected by the risk of poverty or social exclusion. In 2014, 16.0 % of children in Ireland lived in jobless households, slightly down from 2013. Despite the slight improvement in 2014, the overall rate remained the second highest rate in the EU, and much higher than the 10.9 % EU average. Low work intensity was especially prevalent for single parent households (50.6 % in Ireland in 2014 compared with 28.8 % in the EU).

---

<sup>(48)</sup> The Irish authorities continue to dispute the Statistics on Income and Living Conditions (SILC) measurement of very low work intensity as an accurate reflection of the situation in Ireland. The Central Statistics Office (CSO) has recently published a review of the SILC methodology, which determines that the use of labour force survey data and the jobless household measure is a more appropriate instrument to measure the situation in Ireland. Work continues to explore and explain the disparity but Irish authorities acknowledge that the rate of jobless households in Ireland is still considerable and continue to work to improve the situation.

---

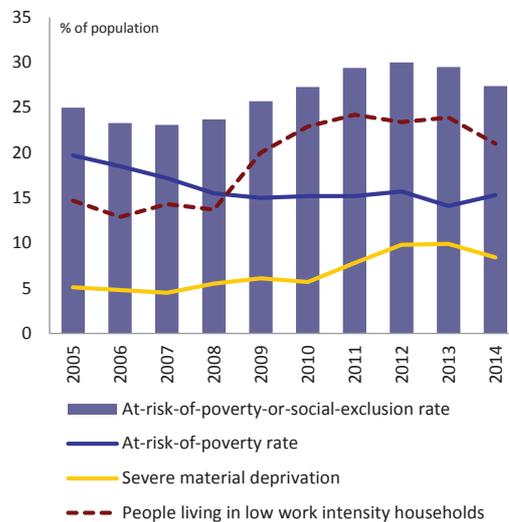
<sup>(46)</sup> McCoy, S. and Smyth, E. (2011), Higher education expansion and differentiation in the Republic of Ireland, in Higher Education 61.

Cullinan, J., Flannery, D., Walsh, S., McCoy, S. (2013), Distance effects, social class and the decision to participate in higher education in Ireland, in The Economic and Social Review 44.

<sup>(47)</sup> Selina McCoy, Emer Smyth, Dorothy Watson, Merike Darmody (2014) Leaving School in Ireland: A Longitudinal Study of Post-School Transitions.

Higher Education Authority (HEA, 2014), Higher Education System Performance, First Report 2014-2016, [http://www.hea.ie/sites/default/files/final\\_volume\\_i\\_system\\_report\\_with\\_cover\\_letter\\_.pdf](http://www.hea.ie/sites/default/files/final_volume_i_system_report_with_cover_letter_.pdf)

Graph 3.2.11: At risk of poverty or social exclusion rate and its components



(1) AROPE: At risk of poverty or social exclusion rate (% of total population). People who are at risk of poverty (AROP) and/or suffering from severe material deprivation (SMD) and/or living in household with zero or very low work intensity (LWI)

Source: Eurostat, EU-SILC

**Absolute poverty, including amongst children, has decreased but rates remain high.** The proportion of people affected by severe material deprivation decreased slightly in Ireland in 2014 to 8.4 %. The rate of severe material deprivation remains much higher than at the onset of the crisis in 2008 but is now slightly below the EU average. The proportion of children (aged 0 to 17) at risk of poverty or social exclusion (AROPE) fell to 30.3 % in 2014 but remains higher than the EU average of 27.8 %. The overall AROPE rate decreased slightly in 2014 to 27.4 %, yet Ireland's AROPE rate remains 3 percentage points higher than the EU average. Relative poverty, amongst children and young people, increased in 2014. The at risk of poverty rate (AROP) of children (0-17) rose from 16.0 % in 2013 to 17.1 % but remains 4 percentage points below the EU average. The AROP rate among young people (18-24) increased significantly from 21.0 % in 2013 to 26.7 % in 2014 and is now 3 percentage points above the EU average.

**Ireland continues to address the issue of the low work intensity of households by reducing inactivity traps and adjusting welfare payments.** Recent studies have identified the

presence of children to be linked with a lower chance of entering employment and a higher chance of exiting employment, especially for women<sup>(49)</sup>. Some 39 % of the unemployed with children face disincentives to work (benefit replacement rates of over 70 %) compared with 6 % of the unemployed without children<sup>(50)</sup>. In response, the 2016 budget announced further reforms to the Family Income Supplement to increase the number of eligible families by around 2 000<sup>(51)</sup>. The One Parent Family Payment (OFP) has also been gradually reformed over recent years with the largest change occurring in July 2015 resulting in a further 30 000 OFP recipients being transitioned to a Jobseeker's payment. The planned increase of the national minimum wage and complementary reforms to the Pay-Related Social Insurance system should also result in increased take-home pay for around 70 000 workers in low paid employment.<sup>(52)</sup> The roll-out of the Housing Assistance Payment, designed to tackle work disincentives associated with the Rent and Mortgage Supplement is continuing. Around 7 000 recipients were registered for the payment in 2015 with a total of 67 000 expected once roll-out is completed. The combined effect of the above changes – by lessening the financial impact of entering employment or increasing the number of hours worked – will likely result in providing further incentives to work and in the gradual reduction of inactivity traps.

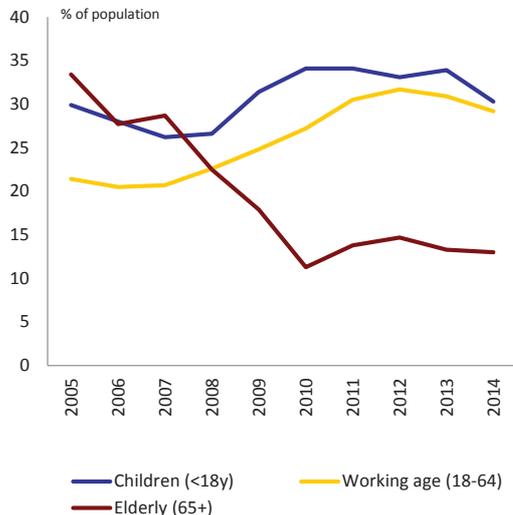
<sup>(49)</sup> Watson et al. (2015) Transitions into and out of Household Joblessness, 2004 to 2014, Department of Social Protection and the Economic and Social Research Institute

<sup>(50)</sup> Savage et al. (2015) Making Work Pay More: Recent Initiatives, Budget Perspectives 2016, Paper 2. [www.esri.ie](http://www.esri.ie).

<sup>(51)</sup> Family Income Supplement is a weekly tax-free top-up payment for employees on low pay with children. To qualify for the payment, the recipient's average weekly family income must be below a certain amount, depending on family size. The 2016 budget announced that the threshold to receive the payment will increase by EUR 5 per week for each of the first two children from January 2016. The threshold for the third and all other children will increase by EUR 10.

<sup>(52)</sup> Recommendations for the National Minimum Wage, Low Pay Commission, July 2015. <https://www.djei.ie/en/Publications/Publication-files/Low-Pay-Commission-Recommendations-for-the-National-Minimum-Wage.pdf>

Graph 3.2.12: At risk of poverty rate, age groups



Source: Eurostat

**The limited availability and high cost of childcare remain significant barriers to increased female labour market participation and hinders efforts to reduce child poverty.** The employment rate for women continues to score below the EU average and the gender employment gap (20-64) is increasing. The employment rate for women rose to 62.6 % in Q3-2015 compared with a sharper increase to 75.7 % for men and an EU average of 64.5 % for women. Single parents, most of whom are women, suffer particularly from this lack of childcare support. The at risk of poverty or social exclusion rate for single parent households (62.5 % in 2014) is much higher than the EU average (48.2 %) although it fell from 64.9 % in 2013. According to 2013 figures, the average fee for childcare nationally was EUR 152 per child per week, amounting to almost EUR 16 000 per year for a two child family. As a percentage of wages, net childcare costs<sup>(53)</sup> in Ireland are among the highest in the EU. They were the second highest in the EU for couples and the highest for single parents.

**Ireland continues to address child poverty through financial measures with complementary actions for children in disadvantaged areas.** Following a EUR 5 increase

<sup>(53)</sup> Taking into account tax reductions for parents of young children.

in universal child benefit in 2015, the 2016 budget announced that the payment would increase by a further EUR 5 to EUR 140 per month per child. The government's social impact assessment of the measures announced in the 2016 budget estimates that the universal increase in the benefit will have the greatest impact on children in the second and third quintile. The overall budgetary cost of the measure is expected to be EUR 72 million. From April 2015, a new Social Inclusion and Community Activation Programme has replaced the Local Community Development Programme and will run until 2017. It has been allocated a budget of EUR 46 million. The programme aims to cater for individuals who are further from the labour market and will provide support for approximately 30 000 people to improve work prospects. The target groups include children and families from disadvantaged areas and lone parents.

**The Irish authorities have also taken steps to address the issue of access and affordability of childcare but capacity constraints are likely to remain widespread.** In July 2015 the Inter-departmental Working Group on Investment in Childcare identified a number of policy options to strengthen childcare services. The report recognises problems regarding scattered and complicated provision of childcare services and the 2016 budget presented plans for the development of a single Affordable Childcare Programme providing a new simplified childcare subsidy programme to be in place in 2017<sup>(54)</sup>. The 2016 budget also announced new funding for childcare amounting to EUR 85 million and increasing the total funding for childcare by a third. EUR 47 million will be spent on a second year of free preschool education for children from 3 years of age until they start primary school. Nevertheless, the number of childcare hours covered by this initiative (three hours a day) is very low. Capacity constraints in the sector will make delivery of this extra service difficult to achieve.

<sup>(54)</sup> Existing measures that will be replaced include Community Childcare Subvention along with the Training & Employment Childcare programmes, comprising After-School Childcare, Childcare Education & Training Support, and Community Employment Childcare.

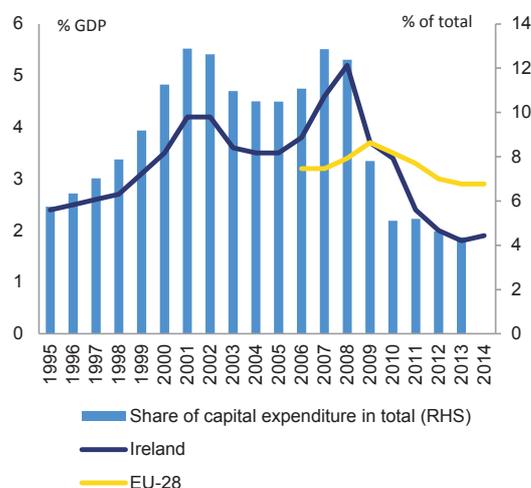
**Concerns remain regarding the quality of childcare provision.** The percentage of graduates working in the sector, at 15 %, is below the 60 % recommended level, while plans to introduce a minimum qualification (Level 5 on the National Qualifications Framework) to work in the sector have been postponed. Also, in 2014, some 21 % of staff in community-based services were on labour market programmes, accounting for 8 % of all staff in childcare services. In response, the government has announced a range of specific quality raising measures including a regular audit of quality a fund for professionalisation of carers and expansion of the Learner Fund, increased funding for mentoring and the inspection system and the regulation and support of childminding. Roll-out of these measures, scheduled for 2016, will be important in raising the quality of childcare provision.

### 3.3. INFRASTRUCTURE NEEDS

**Infrastructure needs return to the forefront of policy issues.** The resumption of strong economic growth in the past two years and the progress made in addressing the legacies of the crisis have contributed to shifting attention progressively towards the challenges of the future more than the legacies of the recent past. As a small open economy, stakeholders in Ireland are acutely aware of the need to remain competitive globally. As indicated in previous sections, the Irish economy is also, by nature more prone to cyclical swings, volatility and shocks. In addition to being in a position to address shocks when they occur, a key policy concern is therefore to foster a balanced, sustainable and inclusive growth path.

**Government investment was sharply hit during the crisis.** As in other EU countries, general government capital expenditure was one of the first items to be cut in order to reduce the budget deficit. Following a peak of 5.2 % of GDP in 2008, public investment fell to a low of 1.8 % of GDP in 2013 before slightly recovering in 2014. It was still well below the EU average (graph 3.3.1). In addition, the crisis appears to have led to a structural shift in the composition of general government expenditure away from investment towards current spending. In 2010-2013, capital expenditure averaged only 4.8 % of the total, less than half the long term average during 1995-2008.

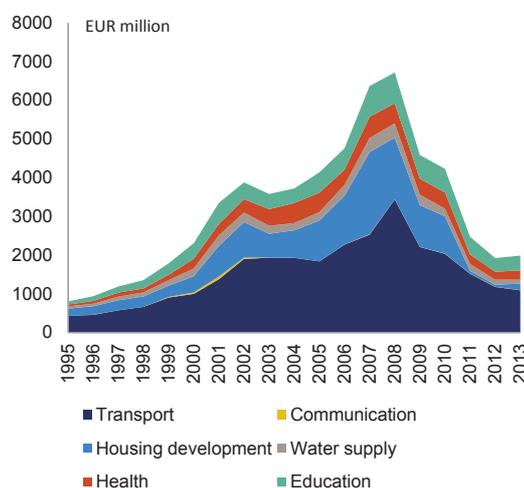
Graph 3.3.1: **General government gross fixed capital formation**



Source: Eurostat

**Public service sectors have been affected unevenly by the recent cuts.** Transport infrastructure — by far the largest component of government investment before the crisis — has been cut sharply, together with investment in housing. Other sectors, including education and health, were affected less severely, even though they were also cut (graph 3.3.2). In turn, public support for R&D and intangible investments was also significantly reduced during the crisis (section 3.1).

Graph 3.3.2: **General government gross fixed capital formation by sector**



Source: Eurostat

**Seven years of sharply reduced government investment have taken a toll on the quality and adequacy of infrastructure.** General government spending on infrastructure averaged EUR 3.8 billion in 2013-2015. However, one can estimate that the annual depreciation of the government capital stock amounts to about EUR 3.0 billion which, at current levels of investment, leaves little room for additions or improvements to infrastructure once maintenance costs are factored in. As a result, pressure points have emerged in a number of areas, also as a result of the resumption of growth. In particular, housing (see section 2.4), water services and public transport are facing interconnected challenges. In terms of international rankings on perception indexes, Ireland has a mixed performance. While it ranks 11<sup>th</sup> on the World Bank's logistics performance index (mainly related to international trade infrastructure), it ranks only 27<sup>th</sup> on the

World Economic Forum's infrastructure component of the global competitiveness index. In turn, Engineers Ireland – in its State of Ireland 2015 report – gave to transport, water and flooding, and waste infrastructure an overall grade of 'C' (i.e. inadequately maintained and/or unable to meet peak demand, and requiring significant investment).

**The authorities recently issued an Infrastructure and Capital Investment plan for 2016-2021.** The plan aims to hold government-funded investment steady at EUR 3.8 billion in 2015 and 2016 before gradually increasing it to EUR 5.4 billion by 2021. The plan also envisages additional investments by semi-state companies. This implies that the capital investment to GDP ratio would remain at historic lows of about 1.7 % in 2016 before marginally increasing to 2.0 % by 2021, well below the still depressed EU average of 2.9 % in 2013-2014. Capital expenditure would average only 6.4 % of the total in 2016-2021, thereby extending the crisis-driven reallocation of government expenditure towards current spending. This could negatively affect not only Ireland's growth potential, but also the delivery of key public services.

**Stakeholders are calling for increased infrastructure development.** Some stakeholders have already stressed that they see a greater need for public sector infrastructure development, on top of what is provided by the private sector. The National Competitiveness Council highlights the importance of world-class infrastructure for the competitiveness of a small open economy and stresses the *'need to increase public capital expenditure and that public investment in infrastructure is prioritised'* <sup>(55)</sup>. Similarly, the business association IBEC and the Nevin Economic Research Institute have called for investment development by the government to be significantly higher than that presented in the Infrastructure and Capital Investment plan.

## Water

**Water infrastructure is weak, though planning for investment progresses.** The recent establishment of Irish Water as a nationwide utility

offers opportunities to improve investment planning and execution in the sector. The company's Strategic Plan and Business Plan received government approval recently. The plans highlight major infrastructure weaknesses in need of urgent attention and key priorities and deliverables up to 2021. The development of a new water supply to the Eastern and Midlands Region, one of the most urgent projects, is currently at an advanced planning stage. The capital plan projects infrastructure investments to increase from EUR 522 million in 2016 to EUR 806 million in 2021.

**The necessity to invest heavily in water infrastructure is now widely recognised.** The constraints or negative effects that poor water supply and wastewater treatment facilities impose on growth, competitiveness, housing development and the environment are fully apparent already. In turn, this seems to favour a gradual acceptance of water charges for households and the single utility model, following a difficult start for Irish Water.

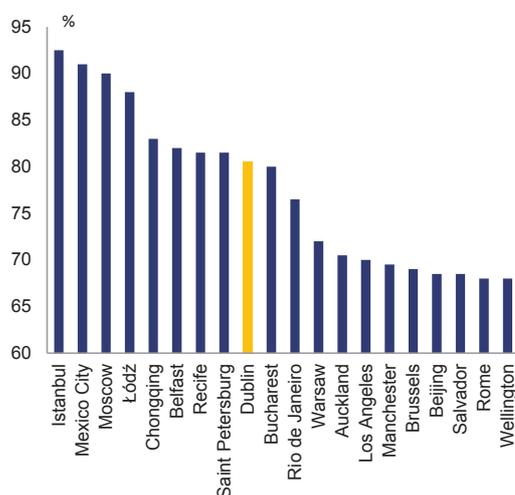
**Irish Water's continued dependence on government funding creates challenges for infrastructure development.** The structure and level of water tariffs mean that government transfers will continue to cover a significant part of Irish Water's costs for the foreseeable future. On this basis, and also considering other factors, Eurostat confirmed that Irish Water must be considered as part of general government for budget and fiscal rules purposes. The package of government-funded infrastructure projects set out in the Infrastructure and Capital Investment plan does not include projects to be implemented by Irish Water. However, Eurostat's ruling means that Irish Water's investments will count as government expenditure. They will therefore be factored in the assessment of compliance with the rules of the Stability and Growth Pact, regardless of how such investments are funded. Consequently, water sector investments may end up 'competing' with other projects under the Infrastructure and Capital Investment Plan. Safeguarding Irish Water's ability to deliver its investment plan will therefore also fall on the government and its expenditure and/or revenue policy.

<sup>(55)</sup> [National Competitiveness Council Bulletin, July 2015.](#)

## Transport

**Transport infrastructure is critically important for spatial planning and economic development but suffers key weaknesses.** A major expansion of the road network occurred during the 1990s and 2000s, in particular in terms of motorways. Airport infrastructure and the rail network were also expanded significantly, even though certain key projects have been criticised for not being appropriately planned or prioritised<sup>(56)</sup>. Key weaknesses in the public transport system nevertheless remain. The shortage of mass transit facilities around Dublin has led to increasing road congestion and high associated economic and environmental costs. Dublin was the fourth most congested city of fewer than 800,000 people in the latest TomTom traffic index, with an overall congestion level of 38 %<sup>(57)</sup>. If only peak morning and evening hours are considered, the congestions index surges to 81 %, ranking Dublin as the ninth most congested city of any size among more than 200 cities monitored by the index (graph 3.3.3).

Graph 3.3.3: Peak hour congestion index, top 20 cities



Source: TomTom congestion index

## Road and rail development is a key focus of the Infrastructure and Capital Investment plan.

<sup>(56)</sup> See for example Edgar Morgenroth's [submission on the review of the public capital programme](#), which criticises the Western Rail Corridor as not significantly adding to useful public infrastructure despite its high cost.

<sup>(57)</sup> The TomTom congestion index measures the increase in overall travel times compared to a free-flow situation.

The plan projects investments in the road network of close to EUR 6 billion in 2016–2021, almost three quarters of which for maintenance only. In turn, EUR 3.6 billion is earmarked for public transport projects. The planned extension of the DART (Dublin Area Rapid Transit) railway between the city centre and the airport will consume the majority of these funds, together with other projects focused on the Dublin area. The DART project aims to address the transport needs of an important corridor where growth in demand of up to 40 % by 2033 is forecast and current and potential future levels of car dependency are unsustainable. Planned investments in public transport outside the Dublin area are small.

## Energy

### Private and semi-state companies are the drivers of energy infrastructure development.

Commercial semi-state enterprises continue to play a critical role in the electricity and gas sectors. Ervia builds and operates Ireland's gas network through its wholly owned subsidiary Gas Networks Ireland. The sale of Bord Gáis Energy in 2014 means that Ervia is currently strictly a network operator in the energy sector. The state-owned Electricity Supply Board is a conglomerate whose subsidiaries are in charge of electricity transmission and distribution, in addition to being active in power generation, electricity and gas retail and core telecommunication infrastructure. Overall, however, the concentration of power generation and gas supply is relatively low and the switching rates are well above EU average, which are a sign of a competitive market. The markets have also been fully deregulated since July 2014. There is no longer any price regulation left at the retail level.

### Further investments in core infrastructure are planned.

The Infrastructure and Capital Investment plan envisages commercial semi-state companies to invest close to EUR 6 billion in 2016–2021 in core infrastructure and power generation, including renewables. This includes, in particular, a north-south transmission line to increase interconnectivity with Northern Ireland, smart metering and increased grid capacity in several parts of the country. As far as private sector investments are concerned, these hinge mainly upon market developments and the functioning of the regulatory framework, as the

electricity market operates on the basis of a vertically disintegrated model with the various segments functioning either under a competitive model (generation, wholesale and retail) or as a regulated state-owned monopoly (transmission and distribution).

**Ireland has abundant renewable energy sources potential.** In particular, wind energy offers significant additional development potential. As of 2013, installed capacity in renewables – mainly wind – amounted to about 2 000 megawatts and accounted for around 20 % of electricity generated, up from 5.3 % in 1990 <sup>(58)</sup>. This is still far short of the target of 40 % by 2020 under the Renewable Energy Directive, and there are concerns that the current trajectory will not enable Ireland to achieve its obligations unless additional measures are taken. The Energy Policy White Paper issued in December 2015, covers a large number of important policy issues. These are couched in relatively broad terms, however, and concrete policy responses remain to be fleshed out in more detail. In particular, policies regarding interconnection of the electricity and gas networks, including with Great Britain, are yet to be reappraised thoroughly. Interconnectivity is nevertheless especially important given its impact on the wholesale electricity market, on access to cheaper sources of power and gas and on Ireland's ability to ensure safety and continuity of supply under a system increasingly reliant on renewables for electricity generation.

### Information and communication

**Access to the broadband network remains uneven.** As attested by the presence of many multinational companies specialising in IT services, access to high quality broadband is not an issue for large businesses and in major urban areas. Broadband access in rural areas, however, remains more problematic as last mile investments cannot be justified on a purely commercial basis. Plans are now in place for public funds to support connectivity in rural areas under the National Broadband Plan for which a pre-qualification phase was launched in December 2015. In terms of access by individuals to next generation networks,

71 % of households are covered by high speed broadband, similar to the EU average of 68 %, but coverage drops to 8 % in rural areas, against an EU average of 25 %.

**IT skills gaps remain.** Figures on internet usage are somewhat better than the EU average, but Ireland continues to suffer from some digital skills gaps. Despite relatively good levels of access and use, 56 % of the Irish population has low or no digital skills. In addition, Ireland suffers from a deficit of skilled ICT professionals. While this is an EU-wide phenomenon, Ireland is one of the countries particularly affected. Demand is high and rising, with over 30 % of businesses in Ireland employing ICT professionals, but the supply of IT specialists is not keeping pace. In 2015, over 50 % of businesses that recruited – or tried to recruit – ICT professionals reported difficulties doing so, one of the highest rates in Europe. As in a number of other countries, graduate numbers have approached a standstill in recent years, as not enough young people, especially women, are attracted to careers in ICT.

### Environment and climate

**Greenhouse gas emission reductions targets are not on track.** Based on existing policy measures, Ireland is expected to miss its national emission reduction targets by 10 %. This is mainly a consequence of an anticipated increase of 19 % in transport emissions between 2013 and 2020 and a 2 % increase during the same period from agriculture. The latter is particularly relevant as it is the biggest contributor to greenhouse gas emissions in Ireland (32 % of the total), in sharp contrast to the EU average (12 % of the total). In transport, the proportion of renewable energy was 5.2 % in 2014, only about half the 2020 target. Issues related to the availability of public transport in Dublin and increasing congestion (see above) further complicate the achievement of greenhouse gas emission reduction targets in the sector.

**The legal framework to promote climate and low carbon development was recently enacted.** The Climate Action and Low Carbon Development Act 2015 was adopted in December 2015. It establishes the obligation for the responsible minister to prepare – for government approval – a national low carbon transition and mitigation plan and a national adaptation framework. These are to

<sup>(58)</sup> [Sustainable Energy Authority of Ireland \(2015\). Renewable Energy in Ireland in 2013.](#)

be backed by sectoral mitigation measures and sectoral adaptation plans. In addition, a Climate Change Advisory Council is established to advise the government, make recommendations and monitor progress on the plans and international obligations through annual and periodic reviews. The provisions of the Act will take time to generate effects, however, as the ministers will have up to 18 months and 24 months from enactment to submit the two key plans to government. In addition, the Act does not set a deadline for government to approve the plans in their original or modified form. It also does not set overall emission reduction targets by certain dates or lay down the expected contributions of key sectors, as this will be fully established in the national and sectoral plans.

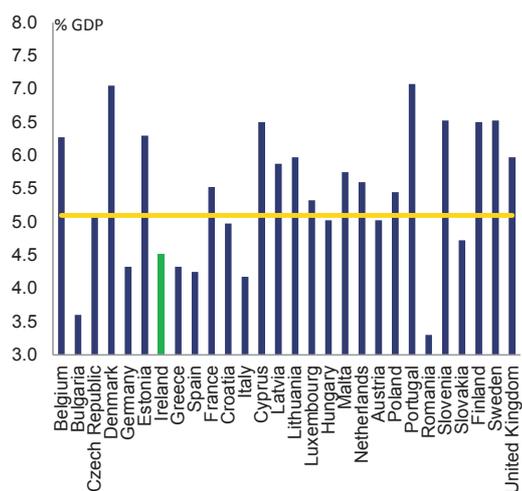
**Other environmental concerns remain due to infrastructure constraints.** Ireland appears to be on track to meet the 50 % waste recycling target by 2020. However, municipal waste generation remains much higher than the EU average and the implementation of waste separation systems would require additional infrastructure. The structure of the transport system and heavy reliance on cars also mean that air pollution remains a concern, with Ireland exceeding two of the four legally binding EU national emission ceilings for air pollutants. In turn, the Environmental Protection Agency highlights major weaknesses in the treatment of waste water, including the discharge of untreated sewage in 45 areas <sup>(59)</sup>.

### Education

**Public spending on education is well below the EU average but the levels of educational achievement and attainment are fairly high.** General government expenditure on education fell significantly during the crisis and averaged 4.5 % of GDP in 2010-2013, 0.6 percentage points below the EU average (graph 3.3.4.). While Ireland trails the leading countries in the global ranking by a significant margin, Irish students perform well in the OECD's international student assessment survey (PISA). Ireland ranks second in reading, sixth in science and eighth in mathematics among the 21 EU Member States participating in the

survey (combined average for girls and boys). Ireland is also one of the leading Member States in terms of tertiary education attainment rates, with 52.2 % of the population aged 30 to 34 at that level of education in 2014. This remains short of Ireland's own Europe 2020 national target of 60 %, but 14 percentage points above the EU average. However, this has not prevented Ireland from suffering some skills shortages like other EU countries. Enrolment in tertiary education in IT fields represented 7 % of the total in 2014, compared with 17 % in health and welfare, 18 % in business, administration and law and 19 % in arts and humanities.

Graph 3.3.4: Total general government expenditure on education (2010-2013 average)



Source: Eurostat

**Demographic trends will increase demand for education.** The Infrastructure and Capital Investment plan projects enrolment in primary education to peak in 2018, with a peak in secondary education in 2025. The demand for tertiary education should also increase beyond 2025, particularly if Ireland further progresses towards its tertiary education attainment target. This will require additional investment in schools and related facilities, which the plan projects at EUR 3.8 billion in 2016-2021 at primary, secondary and tertiary levels. Equally, further education and training facilities are in need of investment in response to the necessity to upskill and reskill workers to fill skills gaps and adapt to new jobs.

<sup>(59)</sup> [Environmental Protection Agency \(2015\). Urban Waste Water Treatment in 2014.](#)

### Spatial and infrastructure planning

**Investments in public infrastructure have close interconnecting effects.** The spatial dimension and economic development effects of investments in public infrastructure cannot be underestimated. Similarly, investments in transport, housing, water, energy, telecommunications or education are closely interconnected. They are also provided by a multiplicity of players, both public and private. While Ireland has a National Spatial Strategy, it may no longer reflect current circumstances or economic and environmental challenges. In addition, it does not have a comprehensive centralised register of state-owned assets, even though such a register is an important element for nationwide infrastructure development planning, as has been illustrated by the recent problems faced by Irish Water.

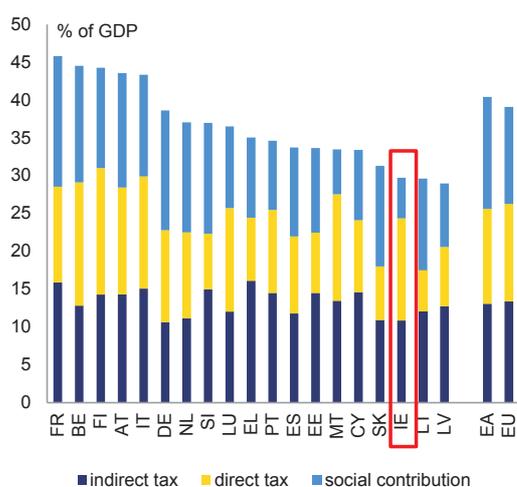
**Prioritisation is an essential element of infrastructure planning.** Public investment in infrastructure typically has a potent short-term stimulus effect, but its main benefits are to be gauged in terms of the impact on long-term growth potential. This is particularly true in the case of Ireland given that the economy is already growing strongly. Constraints on public finances and on expenditure growth – barring increases in revenue – also mean that difficult choices have to be made in selecting projects to be funded. A prioritisation of projects based on detailed cost/benefit analyses is a prerequisite to ensure a proper return on investment and an optimal use of public resources.

### 3.4. TAXATION AND FISCAL FRAMEWORKS

#### Taxation

**Ireland's tax revenue to GDP ratio is low compared with the EU average and is marginally decreasing.** Latest Commission projections estimate the tax revenue to GDP ratio in Ireland at 29.7 % of GDP in 2015 <sup>(60)</sup>. The ratio is low compared with the EU average of 39.1 % (graph 3.4.1). Indirect tax revenues as a percentage of GDP are among the lowest in the EU at 10.9 %, compared with an EU average of 13.4 %. Direct taxes are somewhat above the EU average at 13.5 % of GDP, while social contributions are among the lowest at 5.0 % of GDP. Tax cuts provided in the 2016 budget are likely further to reduce the tax to GDP ratio. The tax system is highly progressive overall, but recent measures on personal income tax are somewhat regressive.

Graph 3.4.1: Tax revenue to GDP ratio, 2015



Total tax revenue excluding imputed social contribution, as estimated in the winter 2016 Commission forecast.  
**Source:** European Commission

**Tax measures in the 2016 budget focus on cuts and reliefs.** The most significant tax cut is the reduction of personal income tax through changes to the universal social charge. The entry threshold for the Universal Social Charge has been raised to EUR 13 000 from EUR 12 012 and the rates have

<sup>(60)</sup> Tax revenue as a percentage of gross national product (GNP) might be a more appropriate benchmark in the case of Ireland given the presence of multinational companies and their large share of gross value added in the economy. For 2015, the tax to GNP ratio is expected to be 34.1% in Ireland, compared with 39.1 % on average in the EU.

been cut for all income brackets under EUR 70 045. The revisions to the Universal Social Charge are primarily targeted at low and middle income earners and the marginal tax rate for middle income earners is expected to drop to 49.5 % from 51 %. Other tax measures in the 2016 budget include tax credits for the self-employed and home carers, a reduction in the capital gains tax for entrepreneurs, and a higher threshold for inheritance tax. The only tax increase in 2016 is on excise duties for cigarettes. Overall, recent tax measures would not seem to be geared towards broadening the tax base.

**The tax wedge on labour is the second lowest in the EU, and is expected to decline further <sup>(61)</sup>.** The tax wedge in 2014 for the average wage worker was 28.2 % compared with the EU average of 46.5 %. The reductions to personal income tax adopted in the 2016 budget will further decrease the tax wedge on labour and increase net income across the income distribution. For example the net income of a single employee without children with a gross income of EUR 35 000 is expected to increase by 1.3 %.

**A number of measures have been taken to encourage entrepreneurship.** The three year tax relief for start-up companies has been extended to the end of 2018 and a tax credit for self-employed and business owner-managers has been introduced. From 1 January 2016, a capital gains tax relief applies for entrepreneurs when they sell their business, up to a threshold of EUR 1 million chargeable gains.

**A new corporate tax incentive for R&D has been set up.** The ‘knowledge development box’ was established as of 1 January 2016. It offers a reduced corporate tax rate of 6.25 % for qualifying incomes from certain types of intellectual property such as patents and copyrighted software, which arise from R&D activity carried out by the taxed entity or outsourced to unrelated parties. The ‘knowledge development box’ is intended to attract international projects and "knowledge based capital". The measure appears to be in line with the modified nexus approach developed under the

<sup>(61)</sup> The tax wedge on labour is the difference between the total cost of an employee’s wages to a company and the employee’s take home pay.

OECD Base-Erosion and Profit-Shifting (BEPS) project, with which all Member States agreed to comply in the EU's Code of Conduct Group on Business Taxation. The modified nexus approach aims at ensuring a link between the tax incentive and the underlying R&D activity, given questions around the effectiveness of existing patent box regimes in increasing R&D investment.

**Ireland introduced the Country-by-Country Reporting recommendations in line with the OECD BEPS Action 13.** From 1 January 2016, all Irish-parented multinational enterprises have to file a report on their income, activities and taxes within 12 months of the end of the relevant accounting period. These reports will be shared with other tax authorities on a confidential basis. The impact of international BEPS implementation on the Irish economy is not yet clear.

**Revenue from value added tax (VAT) is low compared with other Member States, largely as a result of the size of the VAT policy gap.** The VAT policy gap reflects the additional revenues that a Member State could collect in theory if it applied uniform taxation to all consumption, without reduced rates or exemptions. Only four Member States had bigger VAT policy gaps than Ireland in 2013<sup>(62)</sup>. Studies indicate that a tax system that draws a large proportion of its revenue from consumption taxes is less distortive and more growth-friendly than one that relies more heavily on income taxes. There is therefore further room to improve the growth-friendliness of the tax regime without affecting the overall tax burden on the economy (i.e. the tax to GDP ratio). However, there appears to be no process for systematically evaluating the costs and benefits of reduced VAT rates in Ireland, in sharp contrast with the

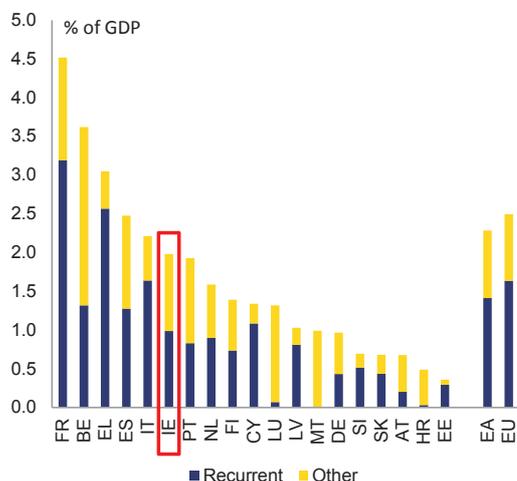
numerous reviews of other tax expenditures conducted in 2015.

**Revenues from immovable properties are below the EU average.** Such revenues amounted to 1.0 % of GDP in 2014, below the EU average of about 1.6 % of GDP (graph 3.4.2). Moreover, a number of exemptions, including for newly developed houses, will be extended. A revaluation of self-assessed property values used to calculate local property tax liabilities was initially planned for 2016, but has been delayed by three years to November 2019. This decision represents a lost opportunity to broaden the tax base as residential property prices have increased substantially since the first self-assessment in 2013. An increase in the share of revenue from a recurrent tax on residential property or land values would reduce the cyclical sensitivity of government revenues and encourage more efficient allocation of land resources. Recurrent taxes on immovable property are considered to be among the taxes least harmful to growth. Although the compliance rate is high and the number of properties eligible for exemptions is low, the local property tax does not cover non-agricultural land. Extending the coverage to adjacent non-agricultural land would broaden the tax base and improve the efficiency of land use. The latter point may be pertinent given current housing supply constraints (see section 2.4).

<sup>(62)</sup> The reduced rate of 9 % in the tourism sector (temporarily introduced until December 2014) has been prolonged under the 2015 and 2016 budgets. A 13.5 % reduced rate applies to various services, newspapers, building works and household energy and fuels, whereas other goods and services, such as children's clothes and transport, are zero rated. Reduced rates and exemptions not only lead to revenue losses, but are considered a poor instrument of redistribution, since they are not targeted to specific categories of recipients.

See also: CASE and CPB (2015) Study to quantify and analyse the VAT Gap in the EU Member States, TAXUD/2013/DE/321: [http://ec.europa.eu/taxation\\_customs/resources/documents/common/publications/studies/vat\\_gap2013.pdf](http://ec.europa.eu/taxation_customs/resources/documents/common/publications/studies/vat_gap2013.pdf).

Graph 3.4.2: Revenues from property taxes, 2014



Source: Eurostat

### A shift towards environmental taxes offers potential growth and environmental benefits.

Revenues from environmental taxes were close to the EU average of 2.5 % of GDP in 2014. Despite recent positive developments<sup>(63)</sup>, no major changes were introduced to improve environmental taxation in the 2016 budget and there remains scope to ensure that environmental taxation contributes to achieving targets in terms of energy efficiency and greenhouse gas emission reduction targets. In addition, environmental taxes are also more growth-friendly than other taxes, including on labour. The reduction of motor tax for commercial vehicles over 4000kg could have detrimental environmental effects. Peat used for electricity generation (subject to the emission trading system) is exempt from the carbon tax, but its extraction remains subsidised. Reduced VAT rates on energy products (at 13.5 %) also conflict with overall energy and climate policy objectives

<sup>(63)</sup> In line with the National Climate Change Strategy 2007-2012, the rates for calculating the vehicle registration tax (VRT) and the motor tax were increased and revised in 2008 to reflect CO<sub>2</sub> emissions, and have since been linked to a new mandatory labelling system. Landfilling of waste in Ireland has been subject to a landfill tax since 2002. A plastic bag levy (charge of EUR 0.22 per plastic bag, EUR 14.2 million revenue in 2012) was introduced in Ireland in 2002.

as they decrease the incentive to reduce energy consumption or improve energy efficiency<sup>(64)</sup>.

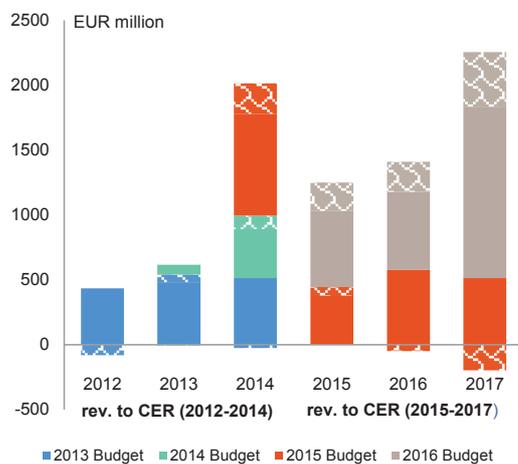
**Further progress could still be made towards making the tax system more efficient and growth-friendly.** The Irish Authorities conduct a rolling programme of tax expenditure reviews, the results of which are published in an annual report. However, the review process does not cover VAT related tax expenditures and there is still scope to broaden the tax base through increases in the least distortionary taxes.

### Fiscal framework

**Multiannual expenditure ceilings have been revised upwards systematically since their introduction.** As highlighted in the 2015 country report, multiannual expenditure ceilings aim to safeguard against pro-cyclical fiscal policies and facilitate medium-term planning of budgetary priorities. However, expenditure outturns have been higher than planned under multiannual ceilings every year since the first Comprehensive Expenditure Report (CER) from December 2011, (graph 3.4.3). The expenditure ceiling for 2014 was revised with successive budgets, with the actual outturn exceeding the ceiling by around EUR 2.0 billion (1.0 % of GDP). In turn, the ceiling for 2015 was revised upwards on the occasion of the 2015 budget and the 2016 budget for a total of EUR 1.2 billion (0.6 % of GDP), following the strong increase in tax receipts.

<sup>(64)</sup> The latest European Environmental Agency (EEA) report (N. 6/2014) tracking progress towards Europe 2020 climate and energy targets for 2020, shows that Ireland is currently expected to miss its 2020 targets of reducing greenhouse gas emissions. Thus, additional efforts would be needed to reduce the emissions to the agreed limits under the Effort Sharing Decision (N. 406/2009/EC of 23 April 2009).

Graph 3.4.3: **Changes to the expenditure ceilings (2012-2017)**



(1) The chart shows the changes, in millions of Euro, of gross (current and capital) voted expenditure in succeeding budget vintages compare to the Comprehensive Expenditure Reports (CER 2012-2014 and CER 2015-2017). Patterned areas refer to revision of capital expenditures.  
**Source:** Department of Public Expenditure and Reforms, European Commission

**Considerable discretion to change expenditure ceilings has been exercised.** While the procedural steps to change government expenditure ceilings are set in primary legislation<sup>(65)</sup>, the circumstances under which revisions to ceilings are allowed are only specified in an internal circular<sup>(66)</sup>. The circular restricts the room to change expenditure ceilings to relatively well defined exceptional circumstances of a negative nature (e.g. severe economic downturns or unusual events outside the control of the state), unless compensatory discretionary measures are introduced such as tax changes<sup>(67)</sup>. These limitations have been *de facto* ignored, with upward revisions taking place in the context of a faster than expected recovery, upwards revisions to growth forecasts and government revenue rising

<sup>(65)</sup> The Fiscal Responsibility Act came into effect in December 2012. The Ministers and Secretaries (Amendment) Act 2013 extended and put on a statutory footing the “ministerial expenditure ceilings” set within the triennial Comprehensive Expenditure Report. The introduction of the Act was part of a wider agenda of budgetary reform and the EU/IMF programme of economic and financial assistance for Ireland.

<sup>(66)</sup> <http://circulars.gov.ie/pdf/circular/per/2013/15.pdf>

<sup>(67)</sup> Specific arrangements are provided for cyclical expenditure (i.e. unemployment benefit) and certain other expenditure categories (i.e. EU co-funded payments).

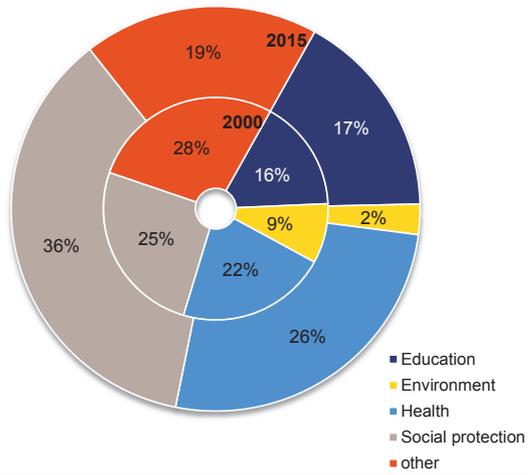
beyond budget projections. Revisions have therefore been mainly pro-cyclical in nature.

**Frequent revisions to multiannual expenditure ceilings can compromise the implementation of budgetary priorities.** Over the past few years, large revisions to the healthcare or other departmental budgets beyond the multiannual framework have been mainly pursued on a reactive basis (following overruns and under-performance in achieving planned cost-efficiency gains) rather than on a proactive basis, following the introduction of new programmes or measures (section 3.5). However, such revisions outside the medium-term framework are susceptible to affect carefully balanced priorities and the relative allocations between Departments, which have already shifted significantly in recent years. Fiscal consolidation in Ireland has indeed been largely achieved through spending cuts and that has led to a major shift in relative allocations across departments (graph 3.4.4)<sup>(68)</sup>.

**The Irish Fiscal Advisory Council is now well established and is reinforcing its role as an independent monitoring institution.** Pursuant to Regulation (EU) No 473/2013, the assessment of the macroeconomic forecast underpinning the annual budget plans and the Stability Programme was assigned to the Irish Fiscal Advisory Council in the Fiscal Responsibility Act of 2012 and 2013. The Council is fully pursuing the mandate assigned to it by law, namely of independently providing an assessment of, and commenting publicly on, whether the national budgetary objectives are met and comply with the numerical fiscal rules introduced by the Fiscal Responsibility Act. The Irish Fiscal Advisory Council is also becoming more prominent in the general debate on fiscal policy making. Its financial and functional independence is ensured by primary legislation and has been underscored by the positions taken so far. On several occasions it has expressed concerns about the lack of enforcement of the expenditure ceilings. More recently in its assessment published in November 2015, it has highlighted the risks associated with the present fiscal stance and stressed that in its view there was no room for expenditure overrun.

<sup>(68)</sup> Expenditure on health and social protection current account for nearly 2/3 of total gross allocations.

Graph 3.4.4: Breakdown of government expenditure allocations (2000 and 2015)

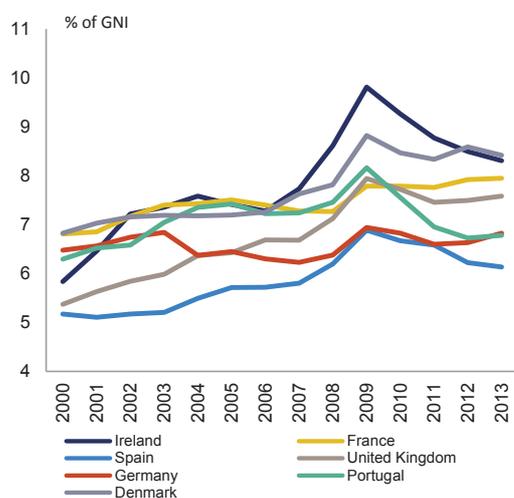


Source: Department of Public Expenditure and Reforms

### 3.5. HEALTHCARE

**Cost-effectiveness, equal access and sustainability are critical challenges for the healthcare system.** Ireland typically ranks in the middle third of OECD countries on a number of health outcomes such as life expectancy at birth, life expectancy at 65 or mortality from cardiovascular diseases. It also frequently performs in the bottom third of OECD countries on a range of quality of care indicators, including avoidable hospital admissions, cancer survival rates and volume of antibiotics prescribed per person <sup>(69)</sup>. Even so, public healthcare expenditure at 8.3 % of gross national income was 1.1 percentage points higher than the EU average in 2013 and second only to Denmark’s 8.4 % (graph 3.5.1), even without taking into account Ireland’s atypical young population structure. Moreover, Ireland has an unusually – for EU standards – high proportion of the population covered by private health insurance, thereby relieving part of the pressure on public spending.

Graph 3.5.1: **Public healthcare expenditure, Ireland and comparators**



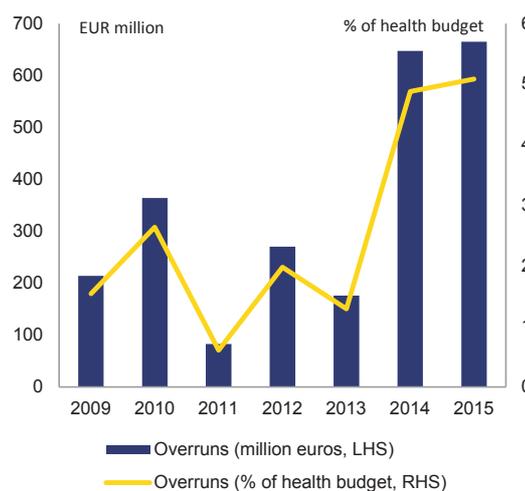
Source: Eurostat

**The forecasting and execution of public healthcare expenditure plans have been problematic over recent years.** Efforts have been made since 2010 to reduce healthcare expenditure, with some degree of success. However, cost-saving measures have been increasingly difficult to achieve over the past couple of years, and

<sup>(69)</sup> OECD. *Health Care at a Glance 2015*.

expenditure cuts have come partly at the expense of public investment in healthcare facilities, which was dropped from 0.32 % of gross national income on average in 2004-2008 to 0.16 % in 2011-2013. In addition, the public healthcare system has been unable to adhere to *ex ante* budget plans over the past few years, with overruns becoming systematic and increasingly large (graph 3.5.2). This can be symptomatic of several issues: technical challenges in planning and budgeting; failure to implement expected cost-saving measures fully; expectations that budget constraints are to be eased during in-year execution; and over-ambitious cost reduction targets <sup>(70)</sup>. Most or all of these factors appear to have been at play in Ireland in recent years.

Graph 3.5.2: **Healthcare budget overruns**



Source: Department of Public Expenditure and Reforms

**Cost-effectiveness is but one of the government’s priorities in healthcare reforms.** The authorities are juggling with a number of other reforms linked to healthcare access, quality, resilience and sustainability, as set out in the 2012 Future Health strategy. The Programme for Government and Future Health set out the objective to transform the current two-tiered system that delivers unequal access into a single-tier system based on universal private health insurance partly supported by general taxation through subsidies for the less wealthy. Other key

<sup>(70)</sup> IFAC (2015) elaborates on issues affecting the implementation of the health budget.

strands of reform include the implementation of an *eHealth* strategy and the introduction of activity-based funding in the health system, initially in the hospital sector.

**The universal health insurance model is in a quandary.** At the request of the government, the Economic and Social Research Institute conducted an examination of the potential cost of introducing a universal health insurance model<sup>(71)</sup> along the lines of what had been set out in broad terms in a 2014 White Paper. As the White Paper was vague on a number of critical aspects, the costing exercise reviewed a range of scenarios and assumptions, including the basket of minimum services and insurers' margins. The findings indicate that the provision of universal healthcare through a multiple payer private insurer's model would significantly raise the level of expenditure, partly by increasing services to match currently unmet needs, but mainly *'because of the intrinsic additional costs that arise when healthcare financing is channelled through insurance companies, which require market margins.'* The report estimates that healthcare costs could increase between 3.5 % and 10.7 % depending on the assumptions on the basket of minimum services. Following publication of the report, the authorities have indicated that they remain committed to introducing universal healthcare, but that further research is needed regarding detailed arrangements, leaving everything uncertain at this time.

**Financial management and information systems remain weak but reforms are now resuming after having faced problems.** The Economic and Social Research Institute report also stressed that the shortage of sufficiently detailed and reliable data negatively affects Ireland's ability to formulate and conduct health policy. Financial management systems across the Health Service Executive (HSE) are fragmented, leading to costs, delays and a lack transparency<sup>(72)</sup>. The systems are currently not in a position to facilitate the transition to hospital groups or the roll-out of activity-based funding. Two key elements of the

Finance Reform Programme – the completion of a uniform chart of accounts and the procurement of a new Finance Management System – stalled in 2013 due to operational issues. This process has now been restarted under a new governance framework, with a single chart of accounts due within three years, and full operation of an Integrated Finance Management System expected by around 2020.

**Activity-based funding is advancing gradually.** The authorities adopted an action plan to implement activity-based funding in hospitals in May 2015. The actual transition from block-funding of hospital activities will be a gradual process that will extend over several years, starting with inpatient and day cases before widening to outpatient care. It could perhaps extend to emergency care and beyond hospitals to community and home care, but only in the long term. Activity-based funding is meant to improve quality, transparency, data collection and a reallocation of resources across hospitals. Although not primarily aimed at cutting costs, it could support such an objective through improved efficiency and specialisation in hospitals. Implementation of the forthcoming stages could prove challenging in the absence of a complete system of patient identifiers and fully reformed financial management systems.

**eHealth implementation is moving step by step.** Though progress has been slower than initially set out, individual health identifiers (IHIs) – the cornerstone of eHealth development – are now finally reaching an operational stage. eHealth Ireland has now been established and is working on various strands of work. IHIs have been created for 95% of the population, and will be piloted for 35 general practitioner practices in Q2-2016. By the end of 2016, all practices under the General Medical Services contract are expected to use IHIs as part of their referral systems and roughly half of acute hospitals are projected to use IHIs as their patient record numbers. By 2017, a maternity newborn system is to be rolled out, issuing an IHI to all newborns automatically. Once IHIs are in place, further efficiency and patient safety reforms will be enabled, such as a system of electronic health records and e-prescriptions. Overall financial management reforms, activity-based funding and eHealth all offer the potential to improve the delivery of quality healthcare in a

<sup>(71)</sup> ESRI (2015). [An Examination of the Potential Costs of Universal Health Insurance in Ireland](#).

<sup>(72)</sup> PA Consulting (2013), [A finance operating model for health in Ireland](#).

cost-effective manner, but their implementation will be a multi-year process that may not yield immediate results.

**Unequal access remains an issue.** Independent of the process towards universal health insurance, the authorities introduced free access to general practitioners for children under 6 and seniors above 70. In April 2015 close to 2 million people (around 40 % of the population) had free access to general practitioners under medical cards or GP visit cards, with others bearing the full cost of general practitioner care. This was a sharp increase from around 30 % prior to the crisis, as medical cards are provided to the unemployed. The fall in unemployment should therefore gradually reduce the ratio in years to come. Conversely, about two million people had some form of inpatient private insurance cover at the end of 2014. This situation has led to unequal access to medical and hospital care. It has affected middle income earners significantly as they typically do not benefit from medical or GP visit cards and may have difficulties affording private health insurance. It has also blurred the lines between the treatment of private and public patients in hospitals. Private insurance buys faster access to hospital care as waiting lists remain long with 44 000 patients on a waiting list of three months or more in October 2015 for inpatient care and an additional 249 000 for outpatient care.

**Implementing primary care reform could be challenging unless barriers to entry for medical professionals are removed.** Under Future Health, the government identified a strategy of reducing the strain on acute hospital services by moving the care setting into the community through an enhanced reliance on primary care centres. This goal will prove challenging given the shortage of full-time general practitioners and difficulties in training and qualification. In its 2010 report, the Competition Authority identified numerous barriers to entry in the medical labour market, almost none of which have been addressed so far <sup>(73)</sup>.

**Spending on pharmaceuticals continues to weigh on cost-effectiveness.** The introduction of

the system of interchangeable groups and internal reference pricing has generated savings on off-patent medicines. It has also increased the penetration of generics (international non-proprietary name plus branded generics), which represented 38.7 % of the volume of total medicines covered under the public system and 11 % in value in Q3-2015. However, less progress has been achieved with efforts to improve prescribing practices. In particular, the authorities are yet to introduce legislation requiring prescriptions for domestic dispensing to be done by international non-proprietary name, even though this has been done for prescriptions for dispensing outside Ireland.

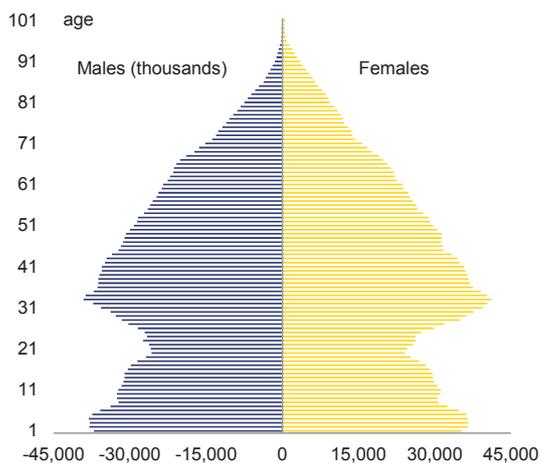
**The cost of single supplier medicines represents a heavy burden on the health budget.** These medicines (though the majority are on-patent medicines, they also include off-patent originator or generic medicines with a single supplier) represented 79.1 % of public expenditure on medicines (for 46.7 % of the volume) in Q3-2015 and efforts to reduce costs have not been fully effective. The mid-term review of the 2012-2015 agreement with the Irish Pharmaceutical Healthcare Association and the savings it expected to yield on patent-protected medicines never materialised, and negotiations for a new agreement were not scheduled to start in full until early 2016. As in the past, negotiations will focus on international reference pricing (frequency of realignments, reference basket), access and high-technology medicines. For medicines no longer patent-protected but which fall outside the system of interchangeable groups, no price benchmarking exercise has been performed. As before, the authorities seem reluctant to activate their pricing powers gained under the Health (Pricing and Supply of Medical Goods) Act.

**An ageing population will put pressure on the healthcare system.** The structure of Ireland's population is expected to undergo significant changes over the coming decades, with a big increase in the number of elderly and a flattening of the age pyramid (graph 3.5.3 and graph 3.5.4). The 2015 Ageing Report estimates that demographic factors alone could add 1.3 percentage points of GDP to healthcare costs by 2060, higher than the EU-15 average of 1.1 percentage point. Under the ageing working group's reference scenario, healthcare costs could

<sup>(73)</sup> Competition Authority (2010). [Competition in Professional Services. General Medical Practitioners.](#)

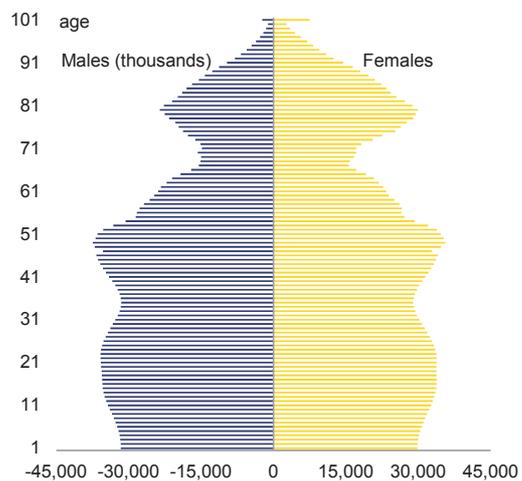
increase by 1.2 percentage points of GDP, compared with the EU average of 0.9 percentage points.

Graph 3.5.3: Age pyramid, 2013



Source: Eurostat, EUROPOP 2013

Graph 3.5.4: Age pyramid, 2060



Source: Eurostat, EUROPOP 2013

## ANNEX A

### Overview Table

#### Commitments

#### Summary assessment <sup>(74)</sup>

2015 Country-specific recommendations (CSRs)	
<p><b>CSR 1:</b> Ensure a durable correction of the excessive deficit in 2015. Achieve a fiscal adjustment of 0.6 % of GDP towards the medium-term budgetary objective in 2016. Use windfall gains from better-than-expected economic and financial conditions to accelerate the deficit reduction and debt reduction.</p> <p>Limit the existing discretionary powers to change expenditure ceilings beyond specific and predefined contingencies.</p> <p>Broaden the tax base and review tax expenditures, including on value-added taxes.</p>	<p>Ireland has made <b>limited progress</b> in addressing CSR 1 (this overall evaluation excludes an assessment of compliance with the Stability and Growth Pact).</p> <p><b>No progress</b> in limiting discretionary powers to change expenditure ceilings. These have been revised up repeatedly on the back of better than expected growth, i.e. beyond specific and predefined contingencies. No changes have been made to the legal framework defining the conditions under which expenditure ceilings can be revised.</p> <p><b>Limited progress</b> in broadening the tax base. Announced measures implementing internationally agreed efforts to reduce tax avoidance are likely to contribute to broadening the tax base. However, changes to the universal social charge, postponement of the revaluation of self-assessed property values used to calculate local property tax liabilities and introduction of further tax credits in the 2016 budget are likely to narrow the tax base. A report on tax expenditure was published recently but is limited in scope as it covers only a limited number of tax expenditures and does not cover VAT at all.</p>
<p><b>CSR 2:</b> Take measures to increase the cost-effectiveness of the healthcare system, including by reducing spending on patented medicines and gradually implementing adequate prescription practices. Roll out activity-based funding throughout the public hospital system.</p>	<p>Ireland has made <b>some progress</b> in increasing cost-effectiveness in the healthcare system, even though it remains an issue, with renewed expenditure overruns in 2015. Savings on pharmaceuticals have been generated by the increased recourse to generics and the use of internal reference prices and lists of interchangeable medicines. Prescription by international non-proprietary name is still not compulsory for medicines to be dispensed in Ireland. The planned mid-term review of the agreement on the supply and pricing of</p>

<sup>(74)</sup> The following categories are used to assess progress in implementing the 2015 CSRs of the Council Recommendation:  
 No progress: The Member State has neither announced nor adopted any measures to address the CSR. This category also applies if a Member State has commissioned a study group to evaluate possible measures.  
 Limited progress: The Member State has announced some measures to address the CSR, but these measures appear insufficient and/or their adoption/implementation is at risk.  
 Some progress: The Member State has announced or adopted measures to address the CSR. These measures are promising, but not all of them have been implemented yet and implementation is not certain in all cases.  
 Substantial progress: The Member State has adopted measures, most of which have been implemented. These measures go a long way in addressing the CSR.  
 Fully addressed: The Member State has adopted and implemented measures that address the CSR appropriately.

	<p>patented medicines with the Irish Pharmaceutical Healthcare Association (IPHA) was never concluded. Formal engagement with the IPHA for its replacement is only expected to start in early 2016. An Activity Based Funding Implementation Plan 2015-2017 was published in May 2015.</p>
<p><b>CSR 3:</b> Take steps to increase the work-intensity of households;</p> <p>and to address the poverty risk of children;</p> <p>by tapering the withdrawal of benefits and supplementary payments upon return to employment;</p> <p>and through better access to affordable full-time childcare.</p>	<p>Ireland has made <b>some progress</b> in addressing CSR 3.</p> <p><b>Some progress</b> in increasing the work intensity of households. Reforms to the One Parent Family Payment (OFP) are continuing. The largest group of recipients of OFP, around 30 000, transitioned to a jobseeker's payment in July 2015.</p> <p><b>Some progress</b> in addressing the poverty risk of children. The 2016 budget announced that Child Benefit would increase by a further EUR 5 to EUR 140 per month per child. A new Social Inclusion and Community Activation Programme was launched in April 2015. The programme aims to cater for individuals who are further from the labour market. Target groups include children and families from disadvantaged areas and lone parents.</p> <p><b>Some progress</b> in tapering benefits. The 2016 budget announced reforms to the Family Income Supplement, which has increased the number of eligible families. The roll-out of the Housing Assistance Payment, which reduces the disincentive to return to work arising from housing subsidies for the unemployed, is continuing.</p> <p><b>Some progress</b> in improving access to childcare. The Inter-departmental Working Group on Investment in Childcare identified a number of policy options to strengthen childcare services. The 2016 budget announced plans for the development of a single Affordable Childcare Programme providing a new simplified childcare subsidy programme to be in place in 2017. The 2016 budget also announced new funding for childcare amounting to EUR 85 million and increasing the total funding for childcare by a third. EUR 47 million will be spent on a</p>

	second year of free preschool education for children from 3 years of age until they start primary school.
<p><b>CSR 4:</b> Finalise durable restructuring solutions for a vast majority of mortgages in arrears by end-2015;</p> <p>and strengthen the monitoring arrangements by the Central Bank of Ireland.</p> <p>Ensure that restructuring solutions for loans to distressed SMEs and residual commercial real-estate loans are sustainable by further assessing banks' performance against own targets.</p> <p>Take the necessary steps to ensure that a central credit registry is operational by 2016.</p>	<p>Ireland has made <b>some progress</b> in addressing CSR 4.</p> <p><b>Some progress</b> in finalising durable restructuring solutions. The Central Bank of Ireland has requested banks to provide plans on how they intend to conclude sustainable solutions with the vast majority of mortgage borrowers in arrears by the end of Q1-2016. As of the end of September 2015, 86 % of concluded restructuring solutions were meeting the terms of arrangements. However, meeting the terms of the arrangement is not necessarily an indicator of sustainability. Not all restructures are sustainable solutions since they include short-term solutions, such as interest only restructures.</p> <p><b>Substantial progress</b> in strengthening monitoring arrangements. The five main mortgage holders' mortgage restructuring proposals are now monitored by the Central Bank of Ireland through a more granular framework that has replaced the mortgage arrears restructuring targets. The Central Bank of Ireland started publishing statistics on non-bank lenders' mortgage arrears portfolios in early 2015, as more non-banks hold mortgage loan arrears, especially long-term ones.</p> <p><b>Some progress</b> in ensuring restructuring solutions for loans to SMEs. The Central Bank of Ireland continues with the monitoring of distressed SME and commercial real estate loan resolution against the set of key performance indicators. Still, their resolution continues to be a lengthy process. The National Asset Management Agency (NAMA) is ahead of schedule with the sale of its development property and commercial loan portfolio. NAMA is due to be wound down in 2018.</p> <p><b>Some progress</b> in setting up a credit registry. A revised plan for the implementation of the central credit registry has been adopted while pushing back the timeline for effective implementation. Lenders may start submitting</p>

	<p>data on individuals from the end of September 2016, while the deadline for the submissions for all categories will only be at the end of 2017. Inquiries to the central credit registry when granting new loans to individuals will become mandatory for lenders from 2018 onwards, while it will become obligatory for all categories of loan in mid-2018. The development of secondary legislation is still ongoing, with the intention to finalise the regulations by March 2016.</p>
<b>Europe 2020 (national targets and progress)</b>	
Employment rate target: between 69 % and 71 %	<p>The employment rate (Eurostat definition, age group 20-64) rose to 69.1 % in Q3-2015 compared with an average of 63.7 % in 2011-2012.</p>
R&D investment target: 2.0 % of GDP	<p>Ireland has set a national R&amp;D intensity target for 2020 of 2.0 % of GDP but has made no recent progress towards that target.</p> <p>Investment in R&amp;D reflects the economic contraction. R&amp;D intensity of 1.55 % in 2014 has decreased from 1.58 % in 2013.</p> <p>Public sector R&amp;D intensity in 2014 was 0.41% and business R&amp;D intensity 1.14 %. Business expenditure on R&amp;D, which has been evolving in recent years more favourably than public expenditures, has been supported indirectly by an R&amp;D tax credit scheme that has seen a large uptake.</p>
Reduction of greenhouse gas (GHG) emissions in sectors that are not covered by the Emission Trading System by 20 % compared to 2005 levels.	<p>Non-Emission Trading System greenhouse gas emissions decreased by 12 % between 2005 and 2013. National projections indicate that the country will miss its 2020 target by about 10.1 percentage points with existing measures and by about 5 percentage points with additional measures.</p>
Renewable energy target: 16 % proportion of renewable energy in total gross energy consumption in 2020.	<p>With a proportion of 8.6 % of renewable energy in 2014, Ireland is close to its 2013-2014 interim targets as set out in the Renewable Energy Directive. However, the existing policy, market and budget framework appears to be insufficient to enable the stepwise achievement of the 2020 objective.</p>
Energy efficiency target: 13.9 million tons of oil	<p>In 2013, Ireland identified national indicative</p>

<p>equivalent expressed in primary energy consumption (11.7 million tons of oil equivalent in final energy consumption).</p>	<p>targets for energy efficiency (equivalent to 20 % energy savings in 2020). As regards primary energy consumption, Ireland has set more ambitious indicative targets in the 2014 National Energy Efficiency Action Plans, as compared with the initial target. This represents a welcome improvement compared with the first set of notified targets. Both primary and final energy targets are deemed adequate when compared with GDP estimations for 2014-2020. As regards trends, primary energy consumption did not change in 2014 and remained at 13.4 million tons of oil equivalent.</p>
<p>Early school leaving target: 8 %</p>	<p>Ireland has achieved the target with an early school leaving rate of 6.9 % in 2014. There has been a consistent positive trend in recent years from 11.5 % in 2010, 10.8 % in 2011, 9.7 % in 2012 and 8.4 % in 2013.</p>
<p>Tertiary education attainment target: 60 %</p>	<p>Ireland is one of the leading Member States in terms of tertiary education attainment rates, with 52.2 % of the population aged 30 to 34 years with that level of education in 2014. This remains short of Ireland's own Europe 2020 national target of 60 % but 14 percentage points above the EU average.</p>
<p>To reduce the number experiencing consistent poverty to 4 % by 2016 (interim target) and to 2 % or less by 2020, from the 2010 baseline rate of 6.2 %, which will lift at least 200 000 people out of the risk of poverty and exclusion between 2012 and 2020 (revised target).</p>	<p>The number of people at risk of poverty or social exclusion decreased from 1.36 million in 2013 to 1.27 million in 2014. This remains significantly above the pre-crisis level of 1.05 million in 2008. Achieving the national target remains ambitious.</p>

## ANNEX B

### MIP scoreboard

Table B.1: **The MIP scoreboard for Ireland**

			Thresholds	2009	2010	2011	2012	2013	2014
External imbalances and competitiveness	Current account balance, (% of GDP)	3 year average	-4%/6%	-5.4	-3.6	-2.0	-1.2	0.1	1.8
	Net international investment position (% of GDP)		-35%	-107.3	-104.0	-127.8	-131.5	-127.6	-106.7
	Real effective exchange rate - 42 trading partners, HICP deflator	3 years % change	±5% & ±11%	5.0	-5.4	-9.6	-12.1	-3.9	-3.5
	Export market share - % of world exports	5 years % change	-6%	-4.7	-12.3	-12.5	-12.8	-2.4	-6.1
	Nominal unit labour cost index (2010=100)	3 years % change	9% & 12%	6.6	-7.0	-14.6	-12.2	-3.7	-2.2
Internal imbalances	Deflated house prices (% y-o-y change)		6%	-13.2	-10.3	-15.4	-12.0	0.4	11.1
	Private sector credit flow as % of GDP, consolidated		14%	-5.0	2.6	16.1	-0.7	-1.7	13.7
	Private sector debt as % of GDP, consolidated		133%	256.5	259.2	273.2	279.8	267.8	263.3
	General government sector debt as % of GDP		60%	61.8	86.8	109.3	120.2	120.0	107.5
	Unemployment rate	3 year average	10%	7.7	10.8	13.5	14.4	14.2	13.0
	Total financial sector liabilities (% y-o-y change)		16.5%	3.4	6.3	-2.4	-1.2	-2.5	16.0
New employment indicators	Activity rate - % of total population aged 15-64 (3 years change in p.p)		-0.2%	-1.3	-3.2	-2.9	-1.4	0.4	0.6
	Long-term unemployment rate - % of active population aged 15-74 (3 years change in p.p)		0.5%	2.1	5.4	7.0	5.6	1.1	-2.0
	Youth unemployment rate - % of active population aged 15-24 (3 years change in p.p)		2%	15.3	18.5	15.8	6.4	-0.8	-5.2

Flags: p: provisional.

Figures highlighted are those falling outside the threshold established in the European Commission's Alert Mechanism Report. For REER and ULC, the first threshold applies to euro area Member States.

**Source:** European Commission

# ANNEX C

## Standard Tables

Table C.1: **Financial market indicators**

	2010	2011	2012	2013	2014	2015
Total assets of the banking sector (% of GDP)	919.0	755.1	669.2	566.7	571.2	531.7
Share of assets of the five largest banks (% of total assets)	49.9	46.7	46.4	47.8	47.6	-
Foreign ownership of banking system (% of total assets)	33.8	37.4	35.7	35.6	32.9	-
Financial soundness indicators:						
- non-performing loans (% of total loans) <sup>1)</sup>	13.0	16.1	25.0	25.7	20.7	18.8
- capital adequacy ratio (%) <sup>1)</sup>	14.5	18.9	19.2	20.5	22.4	22.6
- return on equity (%)	-41.0	-10.8	-7.8	-6.8	6.1	-
Bank loans to the private sector (year-on-year % change)	-12.3	-4.7	-2.6	-6.8	-10.0	-6.7
Lending for house purchase (year-on-year % change)	-2.5	-0.9	6.6	-1.7	-3.9	-1.2
Loan to deposit ratio	140.8	133.4	128.7	113.6	99.5	84.7
Central Bank liquidity as % of liabilities	18.5	18.7	17.0	7.4	4.1	2.4
Private debt (% of GDP)	259.2	273.2	279.8	267.8	263.3	-
Gross external debt (% of GDP) <sup>2)</sup> - public	48.3	59.4	71.6	70.1	69.3	65.5
- private	647.1	650.2	653.9	585.8	633.5	629.3
Long-term interest rate spread versus Bund (basis points)*	299.6	699.3	467.7	222.0	120.4	68.7
Credit default swap spreads for sovereign securities (5-year)*	267.2	673.9	406.0	120.4	53.5	37.0

1) Latest data Q1 2015.

2) Latest data September 2015. Monetary authorities, monetary and financial institutions are not included.

\* Measured in basis points.

**Source:** IMF (financial soundness indicators); European Commission (long-term interest rates); World Bank (gross external debt); Eurostat (private debt); ECB (all other indicators).

Table C.2: **Labour market and social indicators - part A**

	2010	2011	2012	2013	2014	2015 <sup>(4)</sup>
Employment rate (% of population aged 20-64)	64.6	63.8	63.7	65.5	67.0	68.5
Employment growth (% change from previous year)	-4.1	-1.8	-0.6	2.4	1.7	2.8
Employment rate of women (% of female population aged 20-64)	60.2	59.4	59.4	60.3	61.2	62.2
Employment rate of men (% of male population aged 20-64)	69.1	68.2	68.1	70.9	73.0	74.9
Employment rate of older workers (% of population aged 55-64)	50.2	50.0	49.3	51.3	53.0	55.2
Part-time employment (% of total employment, aged 15 years and over)	22.7	23.6	24.0	24.1	23.5	22.8
Fixed term employment (% of employees with a fixed term contract, aged 15 years and over)	9.6	10.2	10.2	10.0	9.3	8.9
Transitions from temporary to permanent employment	-	-	-	-	-	-
Unemployment rate <sup>(1)</sup> (% active population, age group 15-74)	13.9	14.7	14.7	13.1	11.3	9.4
Long-term unemployment rate <sup>(2)</sup> (% of labour force)	6.8	8.7	9.1	7.9	6.7	5.6
Youth unemployment rate (% active population aged 15-24)	27.6	29.1	30.4	26.8	23.9	20.6
Youth NEET <sup>(3)</sup> rate (% of population aged 15-24)	19.2	18.8	18.7	16.1	15.2	-
Early leavers from education and training (% of pop. aged 18-24 with at most lower sec. educ. and not in further education or training)	11.5	10.8	9.7	8.4	6.9	-
Tertiary educational attainment (% of population aged 30-34 having successfully completed tertiary education)	50.1	49.7	51.1	52.6	52.2	-
Formal childcare (30 hours or over; % of population aged less than 3 years)	8.0	11.0	10.0	10.0	-	-

(1) Unemployed persons are all those who were not employed but had actively sought work and were ready to begin working immediately or within two weeks.

(2) Long-term unemployed are peoples who have been unemployed for at least 12 months.

(3) Not in Education Employment or Training.

(4) Average of first three quarters of 2015. Data for total unemployment and youth unemployment rates are seasonally adjusted.

**Source:** European Commission (EU Labour Force Survey).

Table C.3: Labour market and social indicators - part B

Expenditure on social protection benefits (% of GDP)	2009	2010	2011	2012	2013	2014
Sickness/healthcare	8.2	7.9	7.3	7.1	6.9	-
Invalidity	1.2	1.3	1.2	1.2	1.2	-
Old age and survivors	-	-	-	-	-	-
Family/children	3.4	3.2	3.0	3.0	2.8	-
Unemployment	3.0	3.7	3.5	3.3	3.1	-
Housing and social exclusion n.e.c.	0.2	0.6	0.5	0.5	0.4	-
<b>Total</b>	22.6	23.3	21.9	21.6	20.7	-
of which: means-tested benefits	6.0	6.9	6.9	6.8	6.6	-
Social inclusion indicators	2009	2010	2011	2012	2013	2014
People at risk of poverty or social exclusion <sup>(1)</sup> (% of total population)	25.7	27.3	29.4	30.0	29.5	27.4
Children at risk of poverty or social exclusion (% of people aged 0-17)	31.4	34.1	34.1	33.1	33.9	30.3
At-risk-of-poverty rate <sup>(2)</sup> (% of total population)	15.0	15.2	15.2	15.7	14.1	15.3
Severe material deprivation rate <sup>(3)</sup> (% of total population)	6.1	5.7	7.8	9.8	9.9	8.4
Proportion of people living in low work intensity households <sup>(4)</sup> (% of people aged 0-59)	20.0	22.9	24.2	23.4	23.9	21.0
In-work at-risk-of-poverty rate (% of persons employed)	5.3	5.5	5.6	5.4	4.5	5.2
Impact of social transfers (excluding pensions) on reducing poverty	60.0	61.9	61.6	60.1	63.4	58.9
Poverty thresholds, expressed in national currency at constant prices <sup>(5)</sup>	12700	11801	11533	11028	10808	11081
Gross disposable income (households; growth %)	-7.0	-4.8	-1.8	0.2	1.0	3.4
Inequality of income distribution (S80/S20 income quintile share ratio)	4.2	4.7	4.6	4.7	4.5	4.7

(1) People at risk of poverty or social exclusion (AROPE): individuals who are at risk of poverty (AROP) and/or suffering from severe material deprivation (SMD) and/or living in households with zero or very low work intensity (LWI).

(2) At risk of poverty rate (AROP): proportion of people with an equivalised disposable income below 60% of the national equivalised median income.

(3) Proportion of people who experience at least four of the following forms of deprivation: not being able to afford to i) pay their rent or utility bills, ii) keep their home adequately warm, iii) face unexpected expenses, iv) eat meat, fish or a protein equivalent every second day, v) enjoy a week of holiday away from home once a year, vi) have a car, vii) have a washing machine, viii) have a colour TV, or ix) have a telephone.

(4) People living in households with very low work intensity: proportion of people aged 0-59 living in households where the adults (excluding dependent children) worked less than 20% of their total work-time potential in the previous 12 months.

(5) For EE, CY, MT, SI and SK, thresholds in nominal values in euros; harmonised index of consumer prices (HICP) = 100 in 2006 (2007 survey refers to 2006 incomes)

**Source:** For expenditure for social protection benefits ESSPROS; for social inclusion EU-SILC.

Table C.4: Structural policy and business environment indicators

Performance indicators	2009	2010	2011	2012	2013	2014
Labour productivity (real, per person employed, y-o-y)						
Labour productivity in industry	6.19	12.19	1.39	0.64	-7.81	6.35
Labour productivity in construction	13.89	-2.46	-4.67	2.82	5.87	-1.65
Labour productivity in market services	2.52	1.33	1.35	-1.55	-4.56	2.46
Unit labour costs (ULC) (whole economy, y-o-y)						
ULC in industry	-6.76	-10.61	-0.72	0.50	8.74	-3.76
ULC in construction	-14.62	-2.45	1.51	-1.64	-11.11	6.49
ULC in market services	-4.12	-4.16	1.38	1.86	3.84	0.53
<b>Business environment</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Time needed to enforce contracts <sup>(1)</sup> (days)	515	515	515	650	650	650
Time needed to start a business <sup>(1)</sup> (days)	13.0	13.0	13.0	13.0	10.0	10.0
Outcome of applications by SMEs for bank loans <sup>(2)</sup>	0.93	0.95	1.49	1.24	0.79	1.23
<b>Research and innovation</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
R&D intensity	1.63	1.62	1.56	1.58	1.58	1.55
Total public expenditure on education as % of GDP, for all levels of education combined	6.43	6.41	6.15	6.16	na	na
Number of science & technology people employed as % of total employment	44	46	50	52	52	51
Population having completed tertiary education <sup>(3)</sup>	31	33	33	35	36	36
Young people with upper secondary level education <sup>(4)</sup>	86	86	87	87	89	93
Trade balance of high technology products as % of GDP	3.91	4.55	5.41	5.39	4.91	4.48
<b>Product and service markets and competition</b>				<b>2003</b>	<b>2008</b>	<b>2013</b>
OECD product market regulation (PMR) <sup>(5)</sup> , overall				1.58	1.35	1.45
OECD PMR <sup>(5)</sup> , retail				0.87	1.53	1.53
OECD PMR <sup>(5)</sup> , professional services				1.60	1.25	1.25
OECD PMR <sup>(5)</sup> , network industries <sup>(6)</sup>				3.32	2.49	2.21

(1) The methodologies, including the assumptions, for this indicator are shown in detail here:

<http://www.doingbusiness.org/methodology>.

(2) Average of the answer to question Q7B\_a. "[Bank loan]: If you applied and tried to negotiate for this type of financing over the past six months, what was the outcome?". Answers were codified as follows: zero if received everything, one if received most of it, two if only received a limited part of it, three if refused or rejected and treated as missing values if the application is still pending or don't know.

(3) Percentage population aged 15-64 having completed tertiary education.

(4) Percentage population aged 20-24 having attained at least upper secondary education.

(5) Index: 0 = not regulated; 6 = most regulated. The methodologies of the OECD product market regulation indicators are shown in detail here: <http://www.oecd.org/competition/reform/indicatorsofproductmarketregulationhomepage.htm>

(6) Aggregate OECD indicators of regulation in energy, transport and communications (ETCR).

**Source:** European Commission; World Bank — Doing Business (for enforcing contracts and time to start a business); OECD (for the product market regulation indicators); SAFE (for outcome of SMEs' applications for bank loans).

Table C.5: **Green growth**

Green growth performance		2009	2010	2011	2012	2013	2014
<b>Macroeconomic</b>							
Energy intensity	kgoe / €	0.09	0.09	0.08	0.08	0.08	-
Carbon intensity	kg / €	0.36	0.36	0.32	0.33	0.32	-
Resource intensity (reciprocal of resource productivity)	kg / €	0.91	0.81	0.68	0.60	0.65	0.63
Waste intensity	kg / €	-	0.11	-	0.07	-	-
Energy balance of trade	% GDP	-2.3	-2.8	-3.2	-3.0	-3.2	-2.8
Weighting of energy in HICP	%	8.79	9.25	10.53	12.70	11.67	11.15
Difference between energy price change and inflation	%	-4.1	3.3	8.4	7.9	3.0	1.0
Real unit of energy cost	% of value added	6.7	6.4	6.9	-	-	-
Ratio of labour taxes to environmental taxes	ratio	5.4	4.9	5.2	5.4	5.3	5.4
Environmental taxes	% GDP	2.3	2.5	2.4	2.4	2.5	2.4
<b>Sectoral</b>							
Industry energy intensity	kgoe / €	0.07	0.07	0.07	0.07	0.07	-
Real unit energy cost for manufacturing industry	% of value added	8.7	6.9	8.0	-	-	-
Share of energy-intensive industries in the economy	% GDP	-	-	-	-	-	-
Electricity prices for medium-sized industrial users	€ / kWh	0.12	0.11	0.12	0.14	0.14	0.14
Gas prices for medium-sized industrial users	€ / kWh	0.03	0.03	0.04	0.04	0.04	0.04
Public R&D for energy	% GDP	0.02	0.02	0.00	0.00	0.00	0.01
Public R&D for environment	% GDP	0.01	0.01	0.01	0.01	0.01	0.00
Municipal waste recycling rate	%	37.3	39.5	43.0	52.4	52.4	-
Share of GHG emissions covered by ETS*	%	27.8	28.2	27.5	29.1	26.7	27.4
Transport energy intensity	kgoe / €	0.94	0.97	0.90	0.84	0.85	-
Transport carbon intensity	kg / €	2.46	2.38	2.34	2.23	2.24	-
<b>Security of energy supply</b>							
Energy import dependency	%	88.8	86.5	89.8	84.8	89.0	-
Aggregated supplier concentration index	HHI	9.2	8.4	15.1	20.4	16.1	-
Diversification of energy mix	HHI	0.38	0.38	0.36	0.34	0.35	-

General explanation of the table items:

All macro intensity indicators are expressed as a ratio of a physical quantity to GDP (in 2005 prices)

Energy intensity: gross inland energy consumption (in kgoe) divided by GDP (in EUR)

Carbon intensity: greenhouse gas emissions (in kg CO<sub>2</sub> equivalents) divided by GDP (in EUR)

Resource intensity: domestic material consumption (in kg) divided by GDP (in EUR)

Waste intensity: waste (in kg) divided by GDP (in EUR)

Energy balance of trade: the balance of energy exports and imports, expressed as % of GDP

Weighting of energy in HICP: the proportion of "energy" items in the consumption basket used for the construction of the HICP

Difference between energy price change and inflation: energy component of HICP, and total HICP inflation (annual % change)

Real unit energy cost: real energy costs as a percentage of total value added for the economy

Environmental taxes and labour taxes : from European Commission, 'Taxation trends in the European Union'

Industry energy intensity: final energy consumption of industry (in kgoe) divided by gross value added of industry (in 2005 EUR)

Real unit energy costs for manufacturing industry: real costs as a percentage of value added for manufacturing sectors

Share of energy-intensive industries in the economy: share of gross value added of the energy-intensive industries in GDP  
Electricity and gas prices for medium-sized industrial users: consumption band 500–20 000MWh and 10 000–100 000 GJ; figures excl. VAT.

Municipal waste recycling rate: ratio of recycled municipal waste to total municipal waste

Public R&D for energy or for the environment: government spending on R&D (GBAORD) for these categories as % of GDP

Proportion of greenhouse gas (GHG) emissions covered by EU Emission Trading System (ETS): based on greenhouse gas emissions (excl land use, land use change and forestry) as reported by Member States to the European Environment Agency

Transport energy intensity: final energy consumption of transport activity (kgoe) divided by transport industry gross value added (in 2005 EUR)

Transport carbon intensity: greenhouse gas emissions in transport activity divided by gross value added of the transport sector

Energy import dependency: net energy imports divided by gross inland energy consumption incl. consumption of international bunker fuels

Aggregated supplier concentration index: covers oil, gas and coal. Smaller values indicate larger diversification and hence lower risk.

Diversification of the energy mix: Herfindahl index over natural gas, total petrol products, nuclear heat, renewable energies and solid fuels

\* European Commission and European Environment Agency

**Source:** European Commission (Eurostat) unless indicated otherwise