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# IRELAND

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# OECD Economic Surveys: Ireland 2011

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*This Survey is published on the responsibility of the Economic and Development Review Committee of the OECD, which is charged with the examination of the economic situation of member countries.*

*The economic situation and policies of Ireland were reviewed by the Committee on 15 September 2011. The draft report was then revised in the light of the discussions and given final approval as the agreed report of the whole Committee on 28 September 2011.*

*The Secretariat's draft report was prepared for the Committee by David Haugh, Álvaro Pina and Muge Adalet-McGowan with statistical assistance from Josette Rabesona, under the supervision of Patrick Lenain.*

*The previous Survey of Ireland was issued in November 2009.*

# BASIC STATISTICS OF IRELAND 2010

## THE LAND

| | |
|---|---|
| Area (1 000 km$^2$) | |
| Total | 70 |
| Agricultural | 43 |

| | |
|---|---|
| Population (thousand inhabitants, Census 2011) | |
| State | 4 581 |
| Dublin | 1 271 |
| Cork | 518 |
| Galway | 251 |

## THE PEOPLE

| | |
|---|---|
| In thousands (annual estimated change, 2011) | |
| Natural increase | 48 |
| Net migration | –34 |
| Number of inhabitants per km$^2$ | 65 |

| | |
|---|---|
| Total labour force | 2 140 |
| Civilian employment (% of total) | |
| Agriculture, forestry and fishing | 4.6 |
| Industry and construction | 19.5 |
| Services | 75.9 |

## PRODUCTION

| | |
|---|---|
| Gross national income (GNI) | |
| In billion | 129 |
| Per head | 28 224 |

| | |
|---|---|
| Gross domestic fixed capital formation | |
| In % of GNI | 14.0 |
| Per head | 3 945 |

## THE GOVERNMENT

| | |
|---|---|
| Net final consumption expenditure (% of GNI) | 20.3 |
| General government (% of GNI) | |
| Current and capital expenditure | 58.6 |
| Current revenue | 43.9 |
| Net lending/borrowing | –10.3 |

| | |
|---|---|
| Composition of Parliament (at general election) | |
| Fianna Fail | 19 |
| Fine Gael | 76 |
| Labour | 37 |
| Other | 34 |
| Total | 166 |

Last general elections: February 2011

## FOREIGN TRADE

| | |
|---|---|
| Exports of goods and services (% of GNI) | 121.9 |
| Main merchandise exports (% of total) | |
| Food and live animals | 7.9 |
| Chemicals and related products | 59.0 |
| Manufactured goods and articles | 13.5 |
| Machinery and transport equipment | 12.4 |

| | |
|---|---|
| Imports of goods and services (% of GNI) | 98.9 |
| Main merchandise imports (% of total) | |
| Food and live animals | 10.2 |
| Chemicals and related products | 19.6 |
| Manufactured goods and articles | 21.6 |
| Machinery and transport equipment | 27.5 |

## THE CURRENCY

Monetary unit: Euro

| | |
|---|---|
| Currency unit per $, average of daily figures | |
| 2010 | 0.755 |
| September 2011 | 0.727 |

# Executive summary

*The Irish economy was hit by a severe crisis in 2008, after over a decade of strong growth that propelled Ireland to the fourth highest level of GDP per capita in the OECD. Initially growth was well founded on solid productivity increases. However, during a period of low-cost funding on international markets and low risk aversion globally, the expansion became increasingly reliant on a speculative housing bubble financed by lax bank lending standards and excessive credit expansion that collapsed in 2008 in the midst of the global economic and financial crisis. During the latter part of the boom, the acceleration of wages eroded international cost-competitiveness and the banking system became over-extended and, once the bubble burst, would have been insolvent without state support. Capital injections to help resolve the crisis have resulted in a sharply higher public debt. In the aftermath, households have been hit by wage cuts, job losses, tax increases and falling house prices, though living standards and perceptions of well-being remain high by international standards.*

*Since 2008, the government has carried out a very sizeable fiscal consolidation. This effort is continuing. The three-year adjustment programme with financial support from the IMF and EU is on track and has started to tackle the roots of the imbalances. Following comprehensive stress tests, the banking system has been recapitalised, but the banks still require liquidity support from the Eurosystem. Good progress is being made to cut the fiscal deficit, but more needs to be done. Against a challenging international backdrop of contagion risk and uncertainty about the policy of euro area governments on sovereign debt, financial-market sentiment towards Ireland worsened considerably but did improve somewhat during the summer. The crisis caused a sharp rise in joblessness and large numbers of young less-educated males remain unemployed. The risk is that joblessness becomes persistent, which could undermine the social consensus that is underpinning the economic and fiscal adjustment. A modest recovery is underway, driven by gains in competitiveness and increases in exports, but it comes with significant downside risks associated with market fears regarding financial stability in the euro area.*

*While government gross debt as a share of GDP has reached one of the highest levels in the OECD area and official financial support remains indispensable in the near term, an orderly return towards a more balanced financial position is possible, provided that tight fiscal policies and wage restraint are in place sufficiently long. To increase the chances of success, the authorities need to continue vigorously implementing the measures required to complete the unwinding of imbalances, ensure that the burden is fairly shared and capitalise on the structural strengths of the Irish economy. These include its business-friendly environment, its flexible labour markets and a skilled labour force.*

*This Survey argues that the authorities should:*

## Persevere on the path of fiscal consolidation:

- *Continue to fully comply with the conditions and targets of the EU-IMF programme.*
- *Reduce the budget deficit to below 3% of GDP by 2015.*

- *Reduce the budget deficit faster than required by the programme to help regain credibility in financial markets if economic growth allows.*
- *Focus spending restraint on public-sector efficiency, welfare reform and scaling back infrastructure projects.*
- *Broaden the tax base by reducing tax expenditures and proceeding with the planned property taxes.*
- *Strengthen the fiscal framework by focusing on the debt-to-GDP target to be met by a specified date; legislating multi-year budget plans; and introducing a nominal expenditure ceiling.*

## Exit from the banking crisis and restore the banking system to health:

- *As financial market confidence returns, restrict the bank eligible liability guarantee scheme to a narrower range of liabilities, with fees that are commensurate to risk.*
- *To help prevent future crises, focus supervision on a set of indicators including: a simple leverage ratio; loan-to-value ratio; loans-to-income ratio; and capital requirements linked to bank size. Also establish a credit register to prevent excessive exposures.*
- *To prevent the recurrence of problems with regulatory forbearance, adopt a process where the breach of identified thresholds, such as excessive growth in overall lending, would accelerate a formal assessment of what, if any, corrective action may be required.*

## Prevent high unemployment from becoming structural:

- *Engage the employment services more actively with job seekers, and require participation in relevant training and job search in return.*
- *To promote return to work, relate unemployment benefits to unemployment duration.*
- *Review the work incentive effects of other welfare benefits, especially housing allowances.*
- *Better attune training programmes to labour market needs; in particular enlarge the set of trades covered by apprenticeships and temporarily close apprentice admission in construction trades.*
- *Extend the duration of the current cut in employers' social security contributions.*

## Further improve competitiveness in order to support export-led growth:

- *A further decline in unit labour cost is essential to support exports.*
- *Enhance competition in the electricity sector by clearly separating generation, transmission, distribution and supply.*
- *Focus feed-in electricity tariff support on the most cost-efficient renewable sources.*
- *Introduce civil fines in competition law, so as to reduce incentives for anti-competitive behaviour.*
- *To enhance the quality of education, systematically evaluate teachers' and schools' performance.*

# Assessment and recommendations

*After more than a decade of very strong growth, Ireland succumbed to a deep recession and a banking crisis*

From 1994 to 2007 the Irish economy was a stellar performer. GDP growth averaged 7% *per annum* pushing Irish living standards to the fourth highest in the OECD. Growth was initially well-founded and genuine progress in the Celtic Tiger years has left Ireland with one of the most structurally sound economies in the OECD. However in its later years the expansion became unbalanced and in 2008 Ireland was hit by a widespread banking crisis associated with a deep recession (Table 1). Ineffective prudential supervision in a context

Table 1. **Key macroeconomic developments**

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|
| | Current prices Billion EUR | Percentage changes, volume (2008 prices) | | | | | |
| **GDP at market prices** | 189.9 | –3.0 | –7.0 | –0.4 | 1.2 | 1.0 | 2.4 |
| Private consumption | 90.6 | –1.3 | –7.3 | –0.9 | –2.5 | –0.5 | 0.7 |
| Government consumption | 31.7 | 1.2 | –3.7 | –3.1 | –3.4 | –2.0 | –4.2 |
| Gross fixed capital formation | 48.5 | –10.4 | –28.7 | –24.9 | –6.3 | –3.3 | 1.2 |
| Final domestic demand | 170.8 | –3.4 | –11.7 | –5.8 | –3.3 | –1.3 | –0.4 |
| Stock building[1] | 1.7 | –1.1 | –0.9 | 1.0 | 1.1 | –0.2 | 0.0 |
| Total domestic demand | 172.5 | –4.6 | –12.8 | –4.7 | –1.9 | –1.5 | –0.3 |
| Exports of goods and services | 152.5 | –1.1 | –4.2 | 6.3 | 4.2 | 3.3 | 5.8 |
| Imports goods and services | 135.3 | –2.9 | –9.3 | 2.7 | 0.7 | 1.1 | 4.2 |
| Net exports[1] | 17.2 | 1.2 | 3.4 | 3.7 | 3.7 | 2.5 | 2.7 |
| *Memorandum items* | | | | | | | |
| GDP deflator | | –2.3 | –4.1 | –2.4 | –0.2 | 1.4 | 1.0 |
| Harmonised index of consumer prices index | | 3.1 | –1.7 | –1.6 | 1.3 | 0.9 | 1.2 |
| Private consumption deflator | | 3.0 | –4.2 | –2.2 | 1.2 | 1.0 | 1.3 |
| Unemployment rate | | 6.0 | 11.7 | 13.5 | 14.2 | 14.2 | 13.9 |
| General government financial balance[2, 3] | | –7.3 | –11.7 | –11.9 | –10.0 | –8.6 | –6.5 |
| General government gross financial liabilities[2, 4] | | 49.7 | 71.2 | 94.9 | 108.4 | 114.4 | 117.2 |
| Current account balance[2] | | –5.6 | –2.9 | 0.5 | 0.5 | 1.7 | 2.1 |

*Note:* National accounts are based on official chain-linked data. This introduces a discrepancy in the identity between real demand components and GDP. For further details see OECD Economic Outlook Sources and Methods (*www.oecd.org/eco/sources-and-methods*).

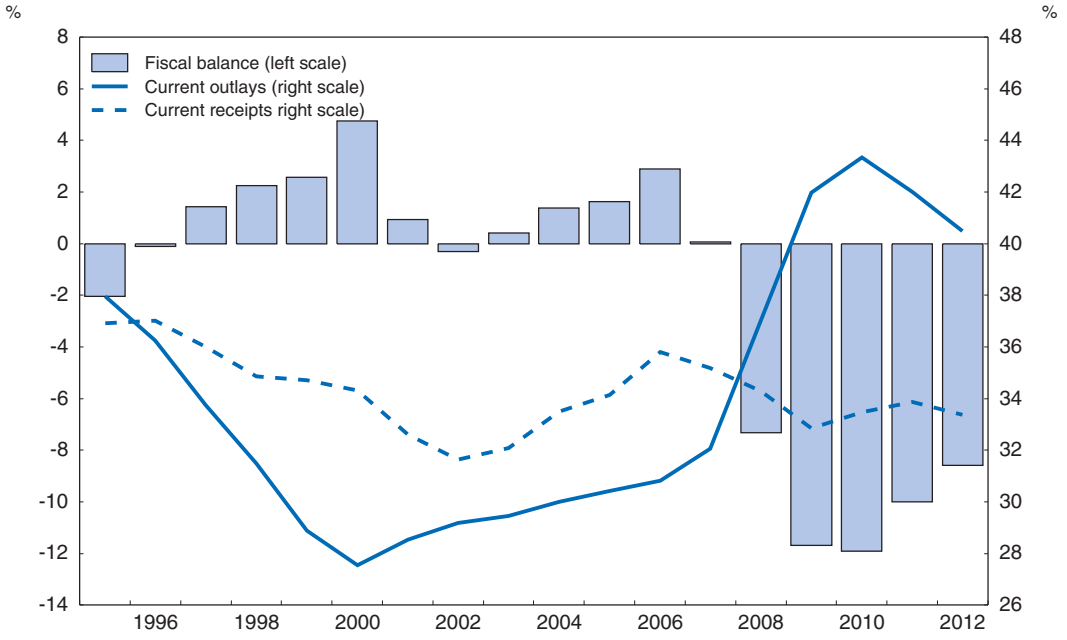
1. Contributions to changes in real GDP (percentage of real GDP in previous year), actual amount in the first column.
2. As a percentage of GDP.
3. Excludes the one-off impact of recapitalisation in the banking sector of 2.5% of GDP in 2009 and 20.1% in 2010. In 2011, it is assumed that until Eurostat makes a ruling that none of the funds injected into the banks by the government are a capital transfer and therefore they have no impact on the headline deficit.
4. Maastricht Treaty Definition.

*Source: OECD Economic Outlook Database.*

of low-cost funding on interbank markets and low risk aversion globally allowed an unsustainable expansion of bank credit, which fuelled a housing market bubble and propelled domestic spending. With the burst of the housing bubble, the Irish banking system suffered financial losses of historical proportions. The government decided to rescue the banking sector by guaranteeing almost all their liabilities and recapitalizing the banks with public funds. Although this worked for a while, the accumulation of large banking losses put pressure on the fiscal position (Figure 1) and, in the autumn of 2010, financial markets concluded that sovereign debt sustainability had been jeopardized. Risk spreads surged and Ireland effectively lost access to sovereign bond markets (Figure 2). The government thus called on financial assistance from the IMF, EU and ECB (Troika) in support of its economic adjustment programme (Table 2). Financial pledges of EUR 85 billion (including EUR 17.5 billion of Ireland's own resources) have been made to cover the fiscal deficit, bank recapitalisation costs and debt maturities over 2011-13, thus providing breathing space for Ireland to improve its situation. The government has implemented measures in a transparent manner and the programme is on track.

Figure 1. **General government fiscal position**[1]

As a percentage of GDP

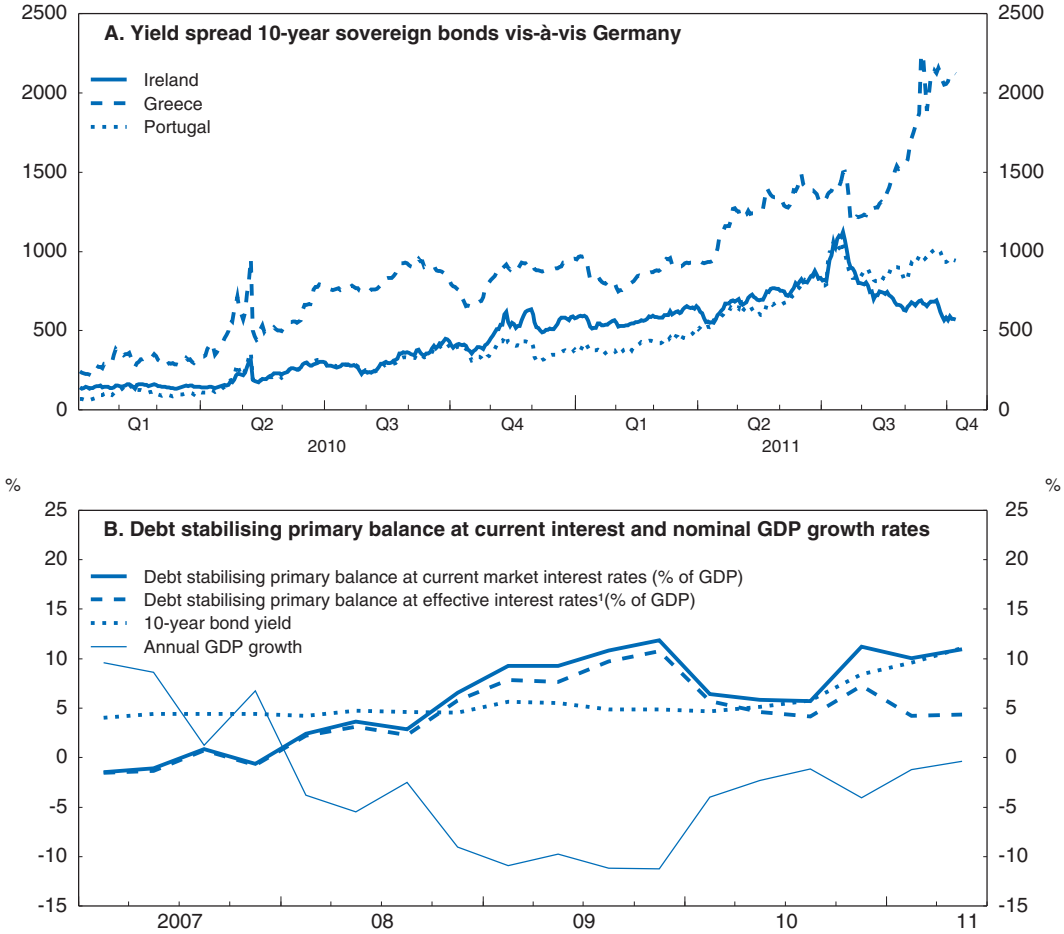



*Note:* Fiscal balance excludes bank support measures of 2.5% of GDP in 2009 and 20.1% of GDP in 2010.
1. Projection for 2011 and 2012.
*Source:* Ireland Stability Programme Update April 2011, Ireland Budget 2011; *OECD Outlook Database*.
StatLink http://dx.doi.org/10.1787/888932526901

### *Long-term prospects are better than in some other crisis countries*

From a long-term growth perspective, Ireland has a number of advantages relative to Greece and, to a lesser degree, Portugal: a more sophisticated and larger export sector (exports of goods and services exceed 100% of GDP in Ireland, compared with 31% in

Figure 2. **Ten year bond yield spreads and the debt-stabilising primary balance**




1. The effective interest rate is calculated by dividing interest payments by gross debt. This differs from the current market interest rate because funds are borrowed at varying points in time at different interest rates.

*Source:* Datastream; *OECD Economic Outlook Database* and Secretariat calculations.

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Table 2. **EU-IMF financial assistance programme**

| | Amount | Indicative interest rates |
|---|---|---|
| | Billions of euro | Per cent |
| IMF[1] | 22.5 | 4.8 |
| EU | 45 | |
| *of which:* EFSM[2] | 22.5 | 2.9 |
| EFSF[3] | 17.7 | 3.1 |
| Bilateral loans[4] | 4.8 | |
| Total external support | 67.5 | |
| Ireland's own resources[5] | 17.5 | n.a. |
| Total package | 85 | |

*Note:* The July 21 2011 EU summit and subsequent decisions lowered the interest rate on loans from the EFSF and EFSM to the borrowing costs of the EFSM and EFSF respectively. This lowered the interest rate charged on loans made through these facilities by around 290 basis points. The United Kingdom agreed to lower the interest rate charged on its bilateral loan to match the EFSF and EFSM rates.

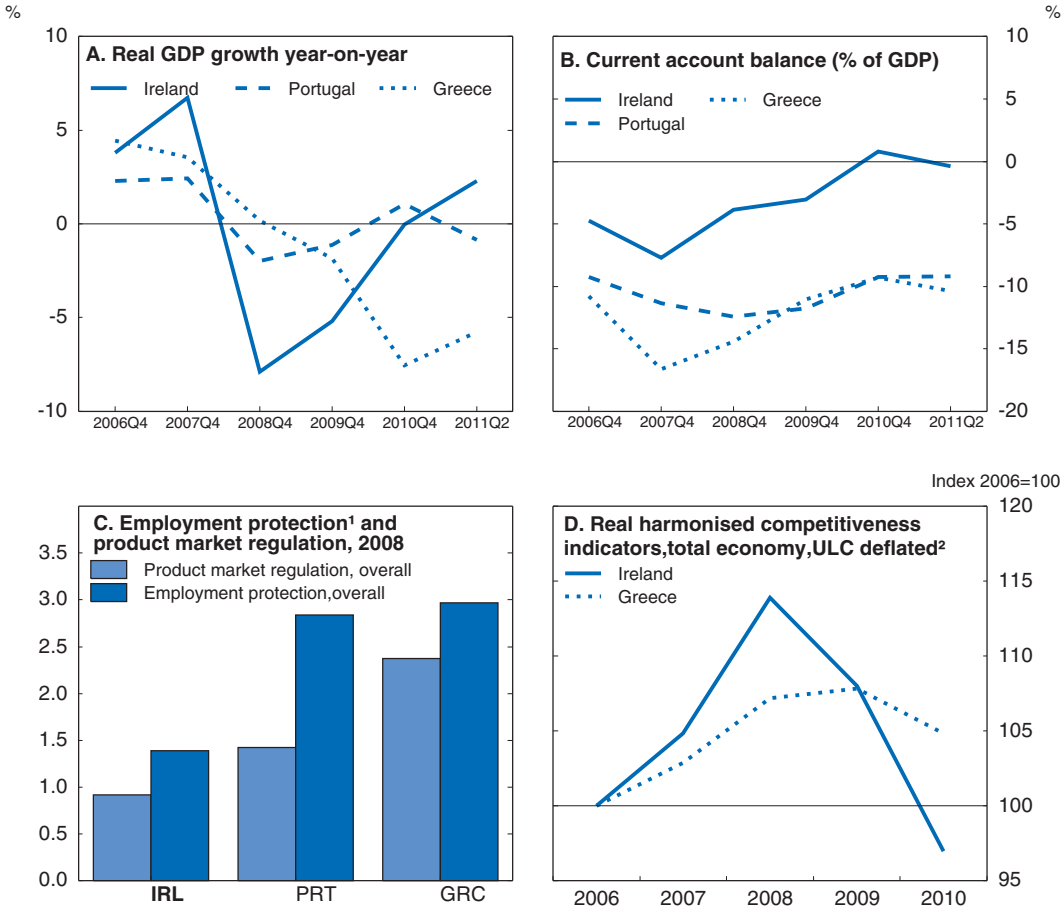
1. Including hedging costs.
2. European Financial Stability Mechanism. Interest rate is indicative only and is the average borrowing cost of the EFSM in its bond issues in January and March 2011.
3. European Financial Stability Fund. Interest rate is indicative only and is the average borrowing cost of the EFSF in its bond issues in January and June 2011.
4. Funds from the United Kingdom (EUR 3.8 billion), Sweden (EUR 0.6 billion) and Denmark (EUR 0.4 billion).
5. EUR 7.5 billion in cash and the remainder from the National Pension Reserve Fund.

*Note:* European Commission (2011), Secretariat calculations and Department of Finance, Ireland.

Portugal and 21% in Greece); a better qualified workforce; a friendlier environment to do business; a more efficient tax system with a lower tax wedge on labour and stable and lower corporate taxes; and more flexible and well regulated product and labour markets. Cost-competitiveness has improved more to date (Figure 3) and Ireland has continued to attract substantial flows of FDI despite the global recession. Ireland's structural strengths are reflected in relatively few structural reform conditions in its financial assistance programme, compared with Greece or Portugal.

Despite these strengths, Ireland faces challenging fiscal prospects. These challenges would be added to by weaker-than-projected global growth. Participants in financial markets are not yet fully convinced that Ireland will be able to return to a path of fiscal sustainability, as reflected by high sovereign risk spreads, though sentiment became more favourable during the summer, aided by the decisions taken by the euro area heads of state and government on 21 July (Table 2). Gross public debt is projected to peak at around 117% of

Figure 3. **Comparing Greece, Ireland and Portugal**




*Note:* Greece has taken several measures since 2008, as described in the OECD Economic Survey of Greece 2011, which have improved the Greek indicators somewhat.

1. Strictness of employment protection, overall, version 3. Employment protection indicator for Portugal is for 2009.
2. 20 group of currencies and Euro area 17 country currencies.

*Source:* European Central Bank (ECB); *OECD Employment Protection Legislation Database* and *OECD Economic Outlook Database*.

StatLink http://dx.doi.org/10.1787/888932526939

GDP in 2013 and, notwithstanding sharp fiscal consolidation, the deficit will remain large for some time. Returning to a sound fiscal position will be a long drawn-out, but achievable process.

## The adjustment programme is beginning to bear fruit and must be maintained

### *Progress is being made in rebalancing the economy*

The adjustment programme supported by the Troika aims to revive economic growth and job creation by restoring the banking system to health, returning the public finances to a sustainable path and reversing past losses in external competitiveness. Good progress has already been made under the programme and all targets have been met, allowing the timely completion of the programme's reviews. By the end of 2011, around two-thirds of the fiscal consolidation envisaged by the government will have already been completed (Table 3). The adjustment of the housing market is well underway, households and firms are rebuilding their savings, unit labour costs are declining, competitiveness is improving and the economy is stabilizing. The recovery is expected to continue in 2012 although it will take years to reverse the sharp rise in unemployment, giving rise to concern for social cohesion that requires a change of focus for labour and social policies.

Table 3. **Consolidation targets and measures**
% of GDP

| | 2008-2010[1] | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|
| Headline fiscal balance target[2] | –11.9 | –10.0 | –8.6 | –7.2 | –4.7 | –2.8 |
| Consolidation measures required[3] | | | | 2.0 | | |
| Consolidation measures implemented and planned | 9.3 | 3.8 | 2.2 | | | |
| Expenditure | 5.7 | 2.5 | 1.3 | | | |
| Current | 4.4 | 1.3 | 1.1 | | | |
| Capital | 1.4 | 1.1 | 0.2 | | | |
| Revenue | 3.5 | 0.9 | 0.9 | | | |
| Other[4] | – | 0.4 | – | – | – | – |

*Note:* Consolidation measures planned for 2012 are consistent with those contained in the Stability Programme Update 2011 and the Joint EU-IMF programme Memorandum of Understanding. The government will set out a medium-term fiscal consolidation plan for the period 2012-2015 in the Pre-Budget Outlook in October. OECD projections for GDP are used. Totals do not always add due to rounding.

1. Measured as impact of 2008-10 measures on 2010.
2. For 2010, actual fiscal balance excluding bank support measures of 20.1% of GDP. The headline general government financial balance targets are the government's. The EU-IMF programme requires that the general government deficit not exceed 10.6% of GDP in 2011, 8.6% of GDP in 2012 and 7.5% of GDP in 2013.
3. Secretariat projection of requirement to meet headline target measured as the change in the underlying primary balance.
4. Includes asset sales, increased dividends and interest cost savings.

*Source:* Stability Programme Update 2011, 2011 Budget and Secretariat calculations.

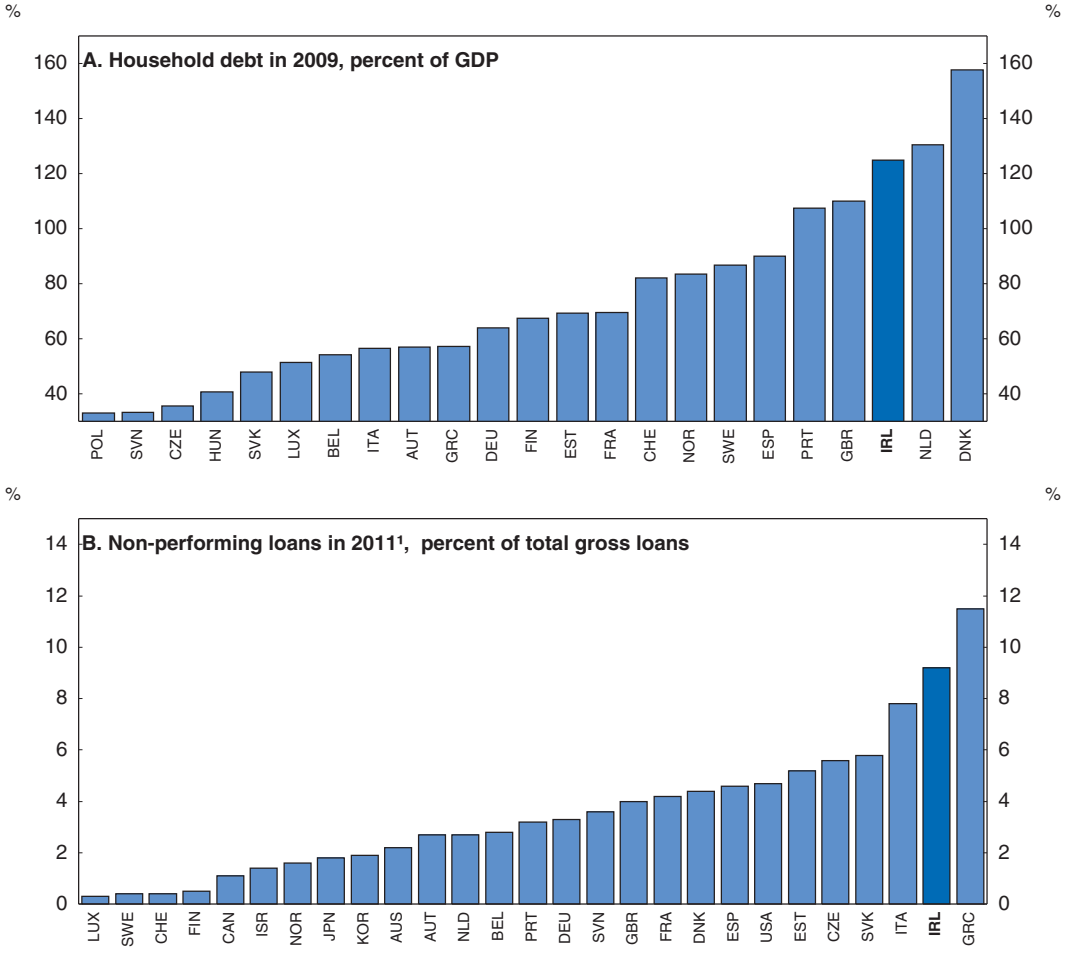
### *The housing sector and consumers are adjusting*

Encouraged by lax bank lending standards and unsustainable surges in property prices, the economy became overly reliant on housing and household consumption during 2000-06. This resulted in an outsized construction sector, a rapid fall in the household savings rate and a leap in household debt (Figure 4). House prices peaked in 2007 and by July 2011, real

house prices had declined by 43%, thus bringing them back to a level last seen ten years ago. Even so, price-to-rent and price-to-income ratios still appear high, suggesting a risk of further price decline.

The private sector and in particular the household sector over-extended itself during the boom and as a whole was spending more than it was earning. Since the onset of the recession there has been a sharp adjustment with declines from their peaks of 13% in real consumption and 71% in private investment. The household savings rate has increased sharply, reflecting in part the need for over-indebtedness to be reduced, which remains a problem as is apparent from high levels of non-performing loans (Figure 4).

Figure 4. **Household debt and non-performing loans**




*Note:* Loans overdue more than 90 days.

1. Or latest year available. The year 2011 refers to various quarters.

*Source:* Eurostat and International Monetary Fund (IMF), *Global Financial Stability Report Financial Soundness Indicators Tables* September 2011.

StatLink http://dx.doi.org/10.1787/888932526958

### *The economy is returning to growth*

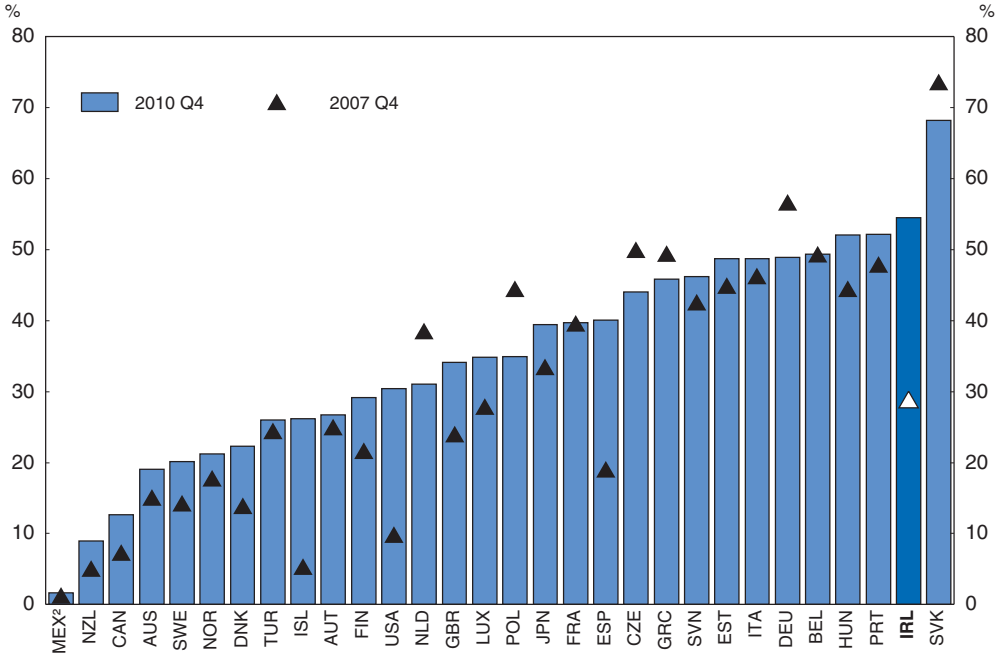
After the painful correction of 2008-10, there are encouraging signs that the economy is stabilising. Exports have returned to robust growth, underpinned by ongoing inflows of foreign investment, which held up well during the crisis, better cost-competitiveness and growth in trading partners up to now. After an extremely sharp decline, overall investment has almost certainly undershot longer-term sustainable levels. The fading drag from the construction sector and domestic demand more generally should boost GDP growth in 2012. However, as is typical in recoveries from financial crises, the reduction of household debt, the deleveraging of bank balance sheets and prolonged fiscal consolidation will all temper growth in Ireland for some time to come (Cerra and Saxena, 2008; Reinhart and Rogoff, 2009; Furceri and Mourougane, 2009).

### *Unemployment will remain high*

The unemployment rate rose from 4.6% in 2007 to 14.2% in the second quarter of 2011. In addition, labour-market participation has declined significantly, particularly among youth, and there has been a sharp increase in emigration. These developments reflect the large employment losses that occurred during the Irish recession, a pattern typical of countries having been affected by the burst of a property bubble, such as Estonia, Spain and the United States. Long-term unemployment has risen significantly (Figure 5) and, as

Figure 5. **The share of long-term unemployment has risen sharply**

Share of people unemployed for more than 12 months in total unemployment[1]




1. Series smoothed using a three-quarter centred moving average.
2. 2010 Q3.

*Source: OECD Employment Outlook*, 2010.

StatLink http://dx.doi.org/10.1787/888932526977

discussed below, there are weaknesses in Ireland's activation policies. In this environment, there is a risk of structural unemployment remaining high, as the skills of job seekers are not matched by the job offers and human capital erodes (Manchin and Manning, 1998).

## The difficult fiscal situation is being dealt with using tough but fair measures

*The government aims to reduce the budget deficit to below 3% of GDP in 2015*

During the boom years Ireland's tax base became excessively reliant on housing, increasing vulnerability to the large economic and financial shock that eventually hit. The sudden collapse of housing, a contraction of nominal GDP by 18% during 2007-10 and the huge cost of rescuing the banking system transformed what had appeared to be a sound fiscal position into an unsustainable one. The headline fiscal balance shifted from a surplus of 2.9% of GDP in 2006 to a deficit of 11.9% in 2010 (32% including one-off banking measures) and public debt rose sharply (Figure 6).

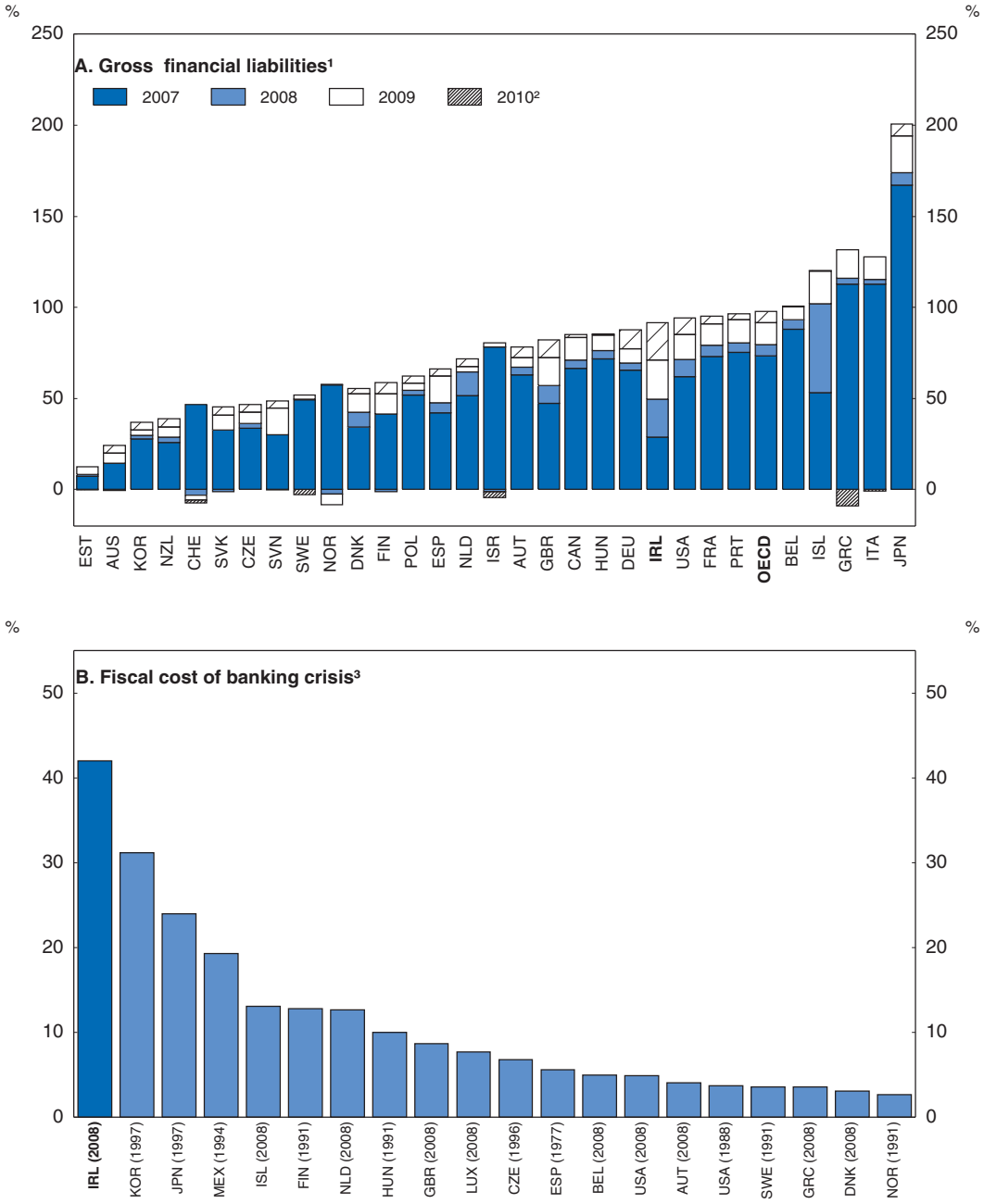
The principal fiscal target is to reduce the general government deficit every year to bring it below 3% of GDP in 2015. Around 9% of GDP in consolidation measures had been taken before the inception of the Troika-supported programme. A further 2.2% of GDP in discretionary fiscal measures will be implemented in 2012. To gain market confidence, slippage relative to the programme must be avoided. Indeed, providing that growth allows, the authorities should reduce the deficit faster than required by the programme. Ireland's very open economy means the fiscal multiplier is relatively small, which reduces the drag on the economy from greater consolidation.

Expenditure measures adopted by the government include cutting public sector wages, social welfare and capital spending. Although around 60% of the consolidation measures being implemented from 2008 to 2012 are on the expenditure side, consideration should be given to further tilting the balance towards cutting spending over raising revenue, as international experience shows that expenditure-based fiscal consolidations tend to be more successful (Guichard *et al.,* 2007). Keeping tight control of public sector wages and employee headcount should remain a priority as this has the triple benefit of assisting consolidation, contributing to social cohesion by spreading the adjustment burden more widely and demonstrating wage restraint to the wider economy. Infrastructure spending should be deferred, as investment during the boom means that there are now few bottlenecks. Welfare expenditure, at close to 40% of current spending, should be scaled back through tightening eligibility as well as reducing rates to keep social payment replacement rates from rising against a background of nominal wage cuts. Lowering the overall expenditure envelopes as part of the new fiscal framework would encourage greater public sector efficiency.

On the revenue side, the government has focussed its efforts on the introduction of an income levy and increases in social security and health levies in the 2011 Budget. Revenue is being further increased in 2011 and 2012 by broadening the income tax base, reducing the tax relief on pension contributions, cutting other tax expenditures, introducing an interim property (site value) tax, increasing the carbon tax and reforming capital gain taxes. These measures will not leave Ireland's overall revenue to GDP ratio high by OECD standards and in view of high government debt levels, Ireland could consider using further

Figure 6. **General government gross assets and fiscal cost of banking crisis**

As a percentage of GDP




1. System of National Accounts (SNA) definition.
2. For Greece, Ireland and Portugal the 2010 change in SNA government debt has been approximated by the change in the Maastricht definition of government debt to make it independent from strong temporary fluctuations in debt levels due to revaluations.
3. Dates refer to year in which the banking crisis started. Gross fiscal costs excluding recovery proceeds computed over the first five years following the start of the crisis.

*Source:* European Central Bank (ECB); International Monetary Fund (IMF) and *OECD Economic Outlook Database*.

StatLink http://dx.doi.org/10.1787/888932526996

revenue measures, should it become apparent that cuts in spending are insufficient to balance the budget. These measures are also broadly in line with OECD advice on fiscal consolidation (OECD, 2010). In particular, revenue measures are focused on base broadening rather than raising tax rates. In addition, greater reliance is being placed on taxes that are least harmful to growth, such as taxes on residential property and green taxes, such as carbon taxes and water charges. It is important to put a priority on the structural changes that are required to ensure these are viable long-term revenue sources. For fairness and administrative reasons, water charges for domestic users and the proposed property (site value) tax need, respectively, water metering and a property valuation system that is updated on a regular basis. The decision to maintain the corporate tax rate at 12.5% is prudent as a sudden increase in tax rates would create uncertainty about Irish tax policy that could undermine investor sentiment. In addition, high corporation taxes tend to be the most harmful to growth (Arnold, 2008) and have serious negative effects on foreign investment (OECD, 2008, Djankov *et al.*, 2010). Ireland's corporate tax revenue to GDP ratio is around the OECD median. The effective corporate tax rate is close to the statutory tax rate indicating an already broad tax base. It is important that the low corporate income tax rate continues to be accompanied by a further broadening of the tax base and by a strict implementation of OECD guidelines on transfer pricing to prevent artificial profit shifting.

### *Adjustment should be spread fairly, so as to ensure social cohesion and political support*

The recession has not fallen evenly across society and, in particular, those who lost their jobs have been amongst the hardest hit. Making sure that the costs and benefits of adjustment are spread fairly will be important for sustained public support. The government has taken measures that put a greater burden on those with a larger capacity to pay by avoiding cutting the basic pension and smaller public sector pensions. In addition, pay cuts have been proportionally greater for higher-paid public-sector employees and more use has been made of reducing pay rates rather than cutting employment, thereby spreading the burden more widely. The Public-Sector Agreement signed with the public service unions (the Croke Park agreement) has contributed to social cohesion by providing a collectively agreed basis for reform in the sector. Despite the recession, Ireland remains at the top of the international league of living standards, as measured by per capita GDP, and displays several above-average indicators of well-being, notably in terms of life satisfaction. However, high unemployment is likely to endure for several years which will put pressure on Ireland's traditional model of social cohesion.

### *There are many opportunities to improve public spending efficiency*

The government has recently completed a comprehensive review of spending. This will be used to determine what spending items could be abandoned completely and how to get more out of existing spending. To increase value for money, consideration should be given to making service provision to or on behalf of government more contestable by the private sector. This can provide cost benchmarks for the public sector as well as saving money. Obtaining maximum efficiency gains from reducing public sector employee numbers will

require mechanisms to ensure smooth redeployment of staff between departments and agencies. In addition, demands on government increasingly require specialised skills. Reform should facilitate the hiring of more specialists and enhance the fluid movement of employees both within and between the public and private sectors, which is especially important in a small labour market. This will require greater flexibility in contract types and a less costly redundancy regime for the public service. Changes to lift public-sector efficiency will include rationalising non-commercial state agencies through mergers and reducing staff. To improve performance monitoring performance statements for agencies and departments should have a few key output and outcome indicators that can be monitored over time against benchmarks.

### *The fiscal framework should be strengthened*

During the previous boom, public expenditure was allowed to grow too fast and the tax base was excessively narrowed through reducing the proportion of wage and salary earners subject to income tax and increased reliance on capital taxes, thus contributing to the large deterioration in the fiscal position when the recession struck. A stronger fiscal framework can help to prevent this occurring in the future and to tackle Ireland's high sovereign debt burden in the wake of the crisis. The government will introduce legislation for a new fiscal framework by the end of the year. This will take account of international best practice, including new developments at the EU level. In addition to the Fiscal Council that was established mid-year with participation of international experts, as recommended by previous *Economic Surveys*, the main elements of the overall fiscal framework will be a medium-term budget plan, a set of fiscal rules including requirements for the fiscal balance and expenditure ceilings as well as performance budgeting (Department of Finance, 2011).

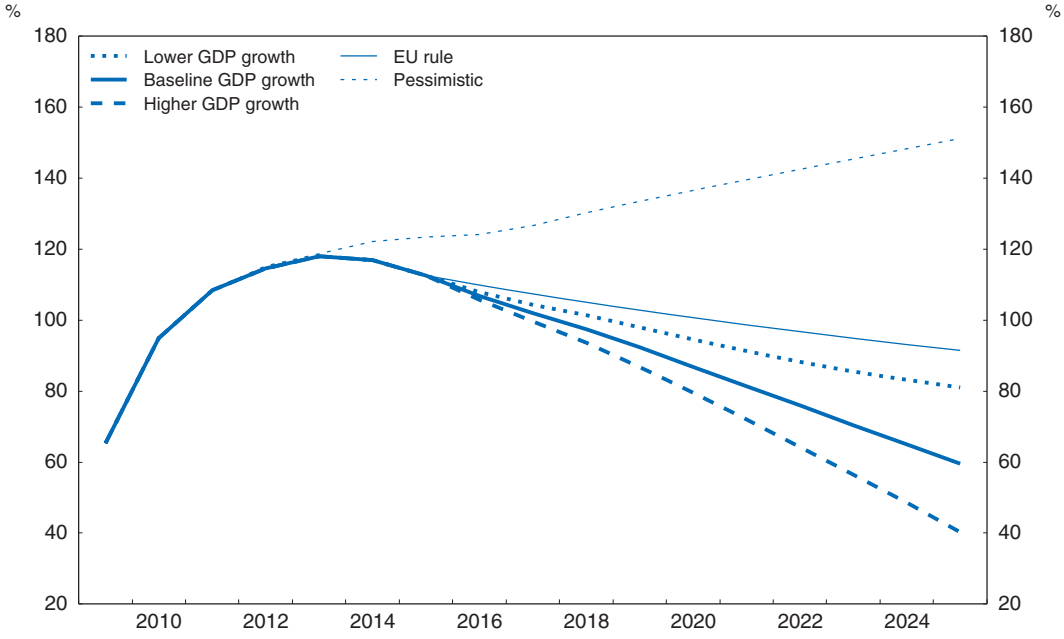
Together these framework elements can help to create a mutually-reinforcing system to help meet the government's medium-term fiscal policy goals and eventually lower borrowing costs by fostering credibility. The budget plan should be operationalised through a commitment to a fiscal rule that can be easily understood and monitored by the parliament and public. The proposed fiscal rules provide constraints for fiscal policy in "stormy weather" (a non-cyclically-adjusted correction path), "bad weather" (a cyclically-adjusted path) and "good weather" (an expenditure rule). It can be argued that such a framework is overly complex as the rules are situation contingent and sometimes specified in terms (the cyclically-adjusted primary balance) that are not easily verified. The government should consider using a commitment to a nominal expenditure ceiling for each year as the main practical commitment to budget prudence for putting the budget plan into action. The Fiscal Council can help to ensure the budget plan is effective by strengthening independent analysis of the fiscal position and assessing whether the government's targets are appropriate and its proposed actions likely to achieve its goals as well as critiquing the government's macroeconomic projections. Appointing international fiscal policy expertise to the Council is welcome. This helps to broaden the range of independent perspectives that the government would have access to in determining policy which is one of the important potential benefits to be derived from such a body.

Ireland's heavy debt burden puts a premium on reversing the debt trajectory. Therefore, the government should focus on a target debt-to-GDP ratio to be achieved by a specified date. A debt target provides a visible medium-term policy anchor, and a simple and transparent

way to communicate the government's fiscal policy messages and commitments. In the longer-term, a debt target will help to deal with the upcoming pressures of ageing on public health and pension spending, which is projected to have an above-average impact on Ireland (OECD, 2011). The choice of target and speed of approach would depend on among other things, the assumptions about future growth and interest rates. The debt trajectory is sensitive to medium-term growth prospects; structural reforms to raise growth (discussed below) thus have strong potential returns as regards fiscal sustainability. For example, all else equal, an increase in average real GDP growth of around 1% compared with the baseline would cut the debt ratio to below 60% of GDP by 2023 instead of 2025 (Figure 7).

Figure 7. **Gross general government liabilities**[1]

As a percentage of GDP




*Note:* In the baseline, low and high growth scenarios the government is assumed to meet its headline deficit targets through to 2015. Nominal trend GDP growth is assumed to average 4.8% in the baseline scenario (2.8% real growth). Nominal trend GDP growth is expected to average 0.8% higher/lower in the high growth/low growth scenarios from 2016 through to 2025. In the baseline scenario the primary balance increases from 3% in 2015 to around 5% in 2020 where it remains through to 2025. In the high growth scenario real spending remains at the baseline level and all the revenue gain from higher growth is added to the primary balance, which increases to 6.2% of GDP by 2020. In the low growth scenario, real spending is held at the baseline level and all of the revenue loss from lower growth is subtracted from the underlying primary balance, which rises from 3% of GDP in 2015 to 3.7% of GDP in 2020 before declining to 2.4% of GDP by 2025.The EU rule fiscal policy scenario uses the baseline assumptions for growth and from 2016 onwards requires debt to decline each year by 1/20 of the difference between the current year debt level and 60% of GDP required by the Maastricht Treaty. The implicit interest rate on government debt averages 5.2% from 2016 to 2025 equivalent to a 125 basis point spread versus Germany. In the pessimistic scenario real growth averages 1% *per annum* and the headline deficit averages 7.3% from 2011 to 2025 and interest rates average 6.8% in 2016-25.

1. Maastricht Treaty definition.

*Source:* *OECD Economic Outlook Database* and Secretariat calculations.

StatLink http://dx.doi.org/10.1787/888932527015

Box 1. **Summary of recommendations for restoring fiscal debt sustainability**

- Continue to implement the EU-IMF financial assistance programme to reduce the deficit to below 3% of GDP by 2015. Provided that growth allows, reduce the deficit faster than required by the programme so as to gain greater credibility in financial markets. Focus the consolidation effort more on reducing spending. Broaden the tax base.
- Proceed with the implementation of a new fiscal framework. As part of the framework produce a multi-year budget. Focus on a debt-to-GDP target to be achieved by a specified date to anchor the fiscal framework. Use a ceiling for nominal expenditure broadly defined in each year of the medium-term framework to help achieve the debt target.

## The banking sector collapse has required a costly recapitalisation

Progress has been achieved in stabilising the banking system, reflecting efforts by the government, as shown by early signs of improved market confidence. In order to contain the crisis, the authorities initially issued an extensive guarantee of bank liabilities amounting to EUR 375 billion (240% of GDP), which was more comprehensive than the approaches adopted by many other countries (Schich, 2009). The government guaranteed bank deposits (including corporate and interbank), covered bonds, senior debt and certain subordinated debt. This broad coverage complicated loss allocation and resolution options and increased the cost for taxpayers. Crucially, as elsewhere, the guarantee was not accompanied by a resolution mechanism to deal with the situation where an initial liquidity problem turned out to be one of solvency. In the short-run, the guarantee prevented bank runs and brought some calm to markets. However, the guarantee period was initially not used to restructure banks, and the ultimate costs in terms of the deterioration of the fiscal position proved very high.

### *The exit strategy involves recapitalisation, deleveraging and withdrawing from guarantees*

As financial market confidence returns, the guarantee scheme needs to be narrowed to a more restricted range of liabilities, but the timing and speed is a fine balancing act. An early exit when the financial system is still fragile could revive concerns about the health of the sector, but too slow an exit could increase the distortion to incentives and competition. The Eligible Liabilities Guarantee (ELG) Scheme that has prevailed following the expiry of the initial guarantee is much more targeted and restricted, and it charges higher fees. In the design for normal times, an even more restricted guarantee scheme should be implemented. It should continue to have a fee structure that takes account of risk and well defined types of liabilities to be covered, in order to minimize moral hazard and the cost to the taxpayer.

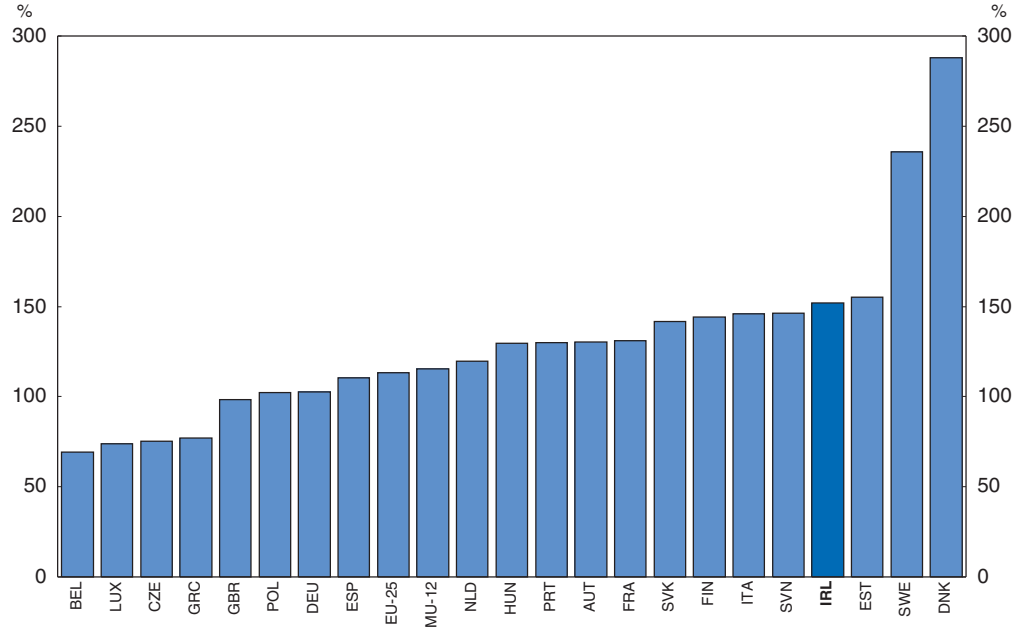
Private shareholders and subordinated bondholders suffered equity losses of EUR 60 billion and EUR 10 billion, respectively, and these massive losses left the domestic banking system severely under-capitalised. In response, the government has injected public funds of around EUR 63 billion (40% of GDP) by end July 2011. The government initially had insufficient access to information about the scale of the banking losses, which made it difficult to identify the extent of restructuring and the need for capital, leading to

incomplete measures that undermined market confidence in the health of the banking system.

A turning point came when the Central Bank of Ireland published its Prudential Capital Assessment Review (PCAR) and Prudential Liquidity Assessment Review (PLAR) in March 2011. These stress tests provided a transparent and stringent assessment of the capital and liquidity needs of the banks, and were based on conservative assumptions on the loan losses and strict parameters (high capital ratio thresholds, 3 year periods of stress). Their publication immediately improved market confidence as evidenced by the sharp, though temporary, drop in the sovereign spread. Following the tests, the banks have raised a total of EUR 24 billion in capital, of which EUR 16.5 billion came from the state. The subsequent 2011 stress tests conducted by the European Banking Authority (EBA) show that the participating Irish banks meet the EBA stress test requirements and do not require additional capital beyond the requirement set by PCAR. The EBA tests were designed to gauge the resilience of European banks against a set of adverse circumstances, whereas PCAR was tailored to the Irish banks` need to reduce their reliance on external funding (CBI, 2011).

The domestic Irish banking system is too large and has become over-reliant on Euro-system financing (EUR 122 billion in August 2011) due to a loss of deposits and private wholesale funding. To deal with this issue, the results of the PLAR require a reduction in the loan-to-deposit ratio to 122.5% by the end of 2013 (Figure 8). Deleveraging, which is underway, will help to bring the size of the banking system to one that is more in line with the Irish economy, reduce the amount of assets that need to be funded by wholesale

Figure 8. **Stocks of bank loans to deposits ratio, 2009**




*Source:* European Central Bank (ECB).

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funding, which is generally less stable than deposits, and decrease reliance on Euro-system financing. However, the pace of asset reduction needs to be one that avoids fire sales and allows the banks to still issue new credit, an important condition for the economic recovery, especially for the SMEs that will generate new employment growth. The government is restructuring the sector around two domestic universal core pillar banks (Bank of Ireland and Allied Irish Bank), which will return eventually to full private ownership. This is being complemented by competition from domestic and the existing foreign-owned banks and possible entry of other institutions.

### *NAMA should concentrate on resolving bad loans*

The National Asset Management Agency (NAMA), a state bank restructuring agency established as part of the crisis resolution, acquired 11 500 property development-related loans, with a nominal value of EUR 72.3 billion (46% of GDP) at an average haircut of 58%, in return for NAMA bonds which the banks were able to use as collateral at the ECB. This was an important part of cleaning up the banking system as it forced banks to recognise their losses and transfer bad assets off their balance sheets, thereby allowing them to concentrate on new lending.

NAMA aims to manage its assets in a way that results in the best possible return for the taxpayer over a timeframe of 7-10 years. However, in response to low activity in the residential housing market, NAMA has proposed a small-scale pilot programme to stimulate interest in the purchase of residential property by providing some protection against possible additional price declines. In implementing this programme, care must be taken to avoid directly exposing the government to further house price risk. If not, this would distort the property market and expose the government to asset price risk that should rest with the house buyer. In order to prevent this, it is important that this NAMA pilot programme remains transparent and of a small size.

### *Financial supervision and oversight is being extensively overhauled*

A wide range of governance and supervision failures contributed to the banking crisis in Ireland. Failures included a lack of adequate disclosure standards, poor loan evaluation procedures, weak risk assessment systems and too few checks and balances on management, including on remuneration schemes that encouraged risk taking. Supervision failures were in the fields of: *i)* micro-prudential policy, such as the non-intrusive style of supervision that depended on the internal risk assessments of banks, and the inadequacy of staff resources to supervise an ever growing banking system; *ii)* macro-prudential policy, such as the failure to address the rapid increase in mortgage lending by imposing additional capital requirements, caps on sectoral lending, or loan-to-value ratios; and *iii)* financial stability policy, such as the dependence on expectations of a soft landing to the housing bubble in stress tests and external and internal evaluations.

The Irish authorities have taken many measures to address these weaknesses (see Annex A1). Financial regulation and supervision have been merged into the Central Bank again, after having been carved off to a separate financial regulator in 2003. The Central Bank will be responsible for regulation of the banking system at micro and macro-

prudential levels so that attention can be paid to macro-financial linkages. The main objectives set out in the Central Bank Reform Act of 2010 are to create a new fully-integrated structure for financial regulation and the introduction of a fitness and probity regime for the financial sector. The goal of promoting the growth of the Irish financial sector, which had hindered the financial regulator from appropriate supervision of the growth in credit during the boom years, has been dropped. As recommended in the previous *OECD Economic Survey*, the government is also moving to introduce a special resolution regime for banks consistent with the EU framework. This should go hand in hand with the deposit insurance scheme.

There have also been significant changes to banking supervision with a switch from the light-handed approach of the pre-crisis period to a more intrusive style. In order to effectively supervise institutions, including via more frequent onsite surveillance, the numbers and skills of the staff are being strengthened. The Financial Stability Committee, chaired by the Central Bank Governor, has been altered to include senior staff from regulatory and macroeconomic departments and meets more frequently. The Central Bank (Supervision and Enforcement) Bill was published in July 2011. This strengthens the ability of the Central Bank to impose and supervise compliance with regulatory requirements and to undertake timely interventions. The Bill also provides the Central Bank with greater access to information and analysis and will underpin the credible enforcement of Irish financial services legislation in line with international best practice.

The financial crisis also exposed weaknesses in the regulation of equity capital under Basel I and Basel II rules, which provided an insufficient buffer against losses and meant that a costly recapitalisation had to be made by the government. In order to help prevent this from recurring, the Central Bank should adopt a set of indicators covering the many dimensions of banks' risk taking. Ireland should as soon as feasible adopt the Basel III standards. In addition, using a simple overall leverage ratio (total un-risk-weighted assets over capital) should be considered as a backstop to the capital ratio. The large role of property loans in the financial crisis also suggests that more rule-based regulation, such as caps on the ratio of loans to values (LTV) or incomes (LTI), should be considered. Capital ratios that increase with bank size would help deal with the particular difficulties posed by systemically important financial institutions and a credit register to prevent excessive exposures to certain sectors and borrowers should be considered.

Another problem highlighted by the financial crisis has been the gap between financial stability assessments and effective policy action. The vagueness of enforcement mechanisms and the unclear mandates in terms of supervision led to inaction in the face of warnings and regulatory forbearance was observed in some cases (Nyberg, 2011). The financial regulator should consider setting up thresholds for a few indicators that can be used to gauge the riskiness of a financial institution. Departures from these benchmarks can prompt a series of actions, starting from more intense supervision of the institution to imposition of higher capital requirements and asking the financial institution to scale down its business. For example, the bank-specific "Supervisory Diamond" introduced in Denmark in 2010 has identified large exposures, lending growth, funding ratio, concentration on commercial property exposures and liquidity ratios as potential risk areas to be monitored. The financial regulator in Ireland could use a similar tool. Starting a dialogue at an earlier stage can help avoid larger problems in the future. Making these thresholds transparent and giving the financial regulator power to make banks comply in the face of breaches can lead to better supervision and prevent regulatory forbearance.

### *The household debt resolution framework needs upgrading*

The size of bad household debt is large. According to a household survey conducted by the Central Statistics Office, a quarter of all households were in arrears with at least one bill or loan on at least one occasion in 2009, compared to 10% in 2008. In the period ended March 2011, 6.3% of private residential mortgage accounts were in arrears for more than 90 days. If current non-performing loan (NPL) problems are not resolved in an efficient and fair way for both creditors and debtors it would likely discourage both the future demand and supply for credit. The relevant legal regime will thus be integral to the resolution of bad debts and restoring the Irish financial system to health. In this light, current bankruptcy laws and debt resolution procedures could be improved. The government is preparing draft legislation to reform personal insolvency with the aim of balancing moral hazard concerns against efficient and effective proceedings. The government's plans to introduce a new structured non-judicial debt settlement and enforcement system as an alternative to court proceedings is welcome. This move can potentially make a large contribution to fairly and efficiently resolving the large overhang of bad household debt. In the meantime, some emergency measures have been taken to address the urgent restructuring needs of the financial system. The CBI has published a Code of Conduct on Mortgage Arrears to prevent costly and unnecessary defaults and a similar Code of Conduct on Loans to SMEs.

Box 2. **Main recommendations for exiting the banking crisis and establishing a healthy banking system**

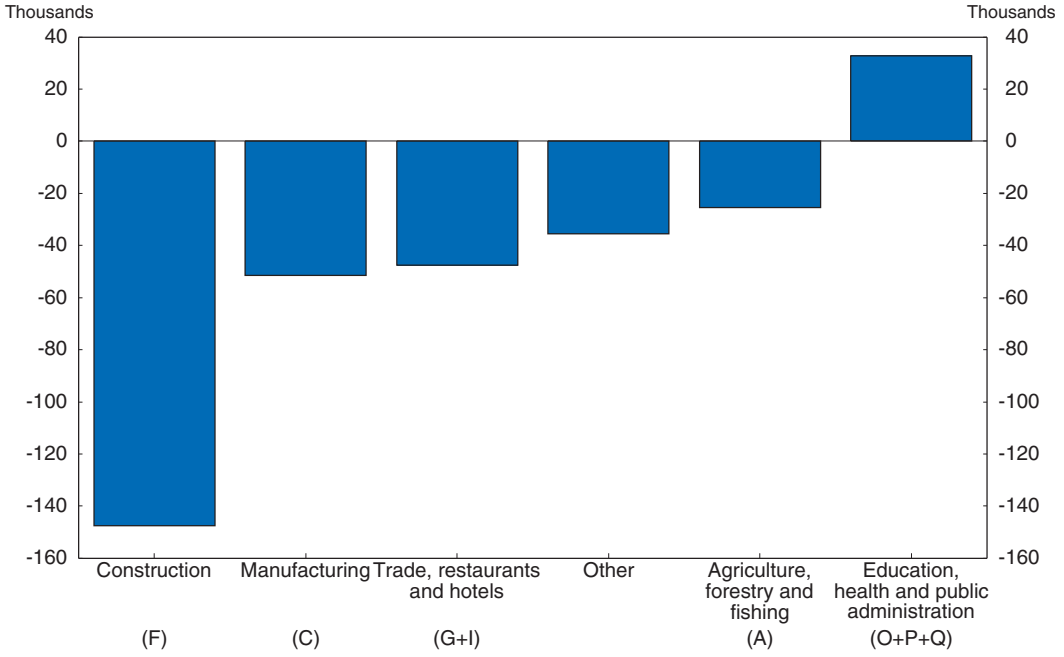
- NAMA should remain focused on its long term mission of managing its assets to achieve the best possible return for the taxpayer and refrain from activities that increase the contingent liabilities of the government.
- As financial market confidence returns, the bank liability guarantee scheme should be narrowed to a more restricted range of liabilities, with fees that are commensurate with risk so as to minimize moral hazard and taxpayer costs.
- To help prevent future crises, adopt the standards envisaged by Basel III as soon as feasible. Also, consider using a leverage ratio (total un-risk-weighted assets over capital) as a backstop to capital ratios. In addition to the loan to deposits (LD) ratio already in place, consider using further rule-based regulation, such as caps on the ratio of loans to values (LTV) or incomes (LTI), capital requirements linked to the size of the bank to address systemic risks. Consider a credit register to prevent excessive exposures to certain sectors and borrowers. To prevent the recurrence of problems with regulatory forbearance, consideration should be given to having a well-defined process where the breach of identified benchmarks on a few indicators, such as excessive growth in overall lending, would accelerate a formal assessment of what, if any, corrective action may be required.

## Labour and social policies need to focus on workers most severely hit by the recession

The economic recession had a severe impact on the labour market, especially on those who were employed in the construction sector (Figure 9). Ireland's unemployment rate is now

Figure 9. **Change in employment by sector**

Change 2007 to 2010




*Note:* Letters in brackets refer to NACE Rev. 2 classifications.
*Source:* Central Statistics Office (CSO) and Secretariat calculations.

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among the highest in the OECD area. Though unemployment numbers have soared for all age groups and levels of educational attainment, most newly unemployed people are young workers – especially males – with low or intermediate qualifications. Those under 35 without tertiary education accounted for 42% of total unemployment (against 23% of the total labour force) at the end of 2010. The severe deterioration of the labour market could result in a persistent problem of under-employment, as Ireland experienced between the mid-1970s to the mid-1990s, and could pose a threat to social cohesion. Irish poverty rates, measured before all social transfers and relative to a 60% of median income threshold, increased the most in the EU (6 percentage points) during 2007-09. Social transfers have contained the problem, with poverty rates after transfers continuing the decline that had started earlier in the decade. However, fighting poverty through welfare benefits alone places a heavy burden on public finances and is ultimately a cause of poverty persistence, brought about by long term dependence on social transfers (Department of Social Protection, 2010).

After more than a decade of strong contributions to demographic growth, net migration turned negative, with an estimated cumulative outflow of 76 000 (around 1.7% of the total population) from April 2008 to April 2011. Arrivals to Ireland have gone back to the early nineties levels, and emigration has increased markedly, especially among Irish nationals, where it has tripled. Short-term migration can play an adjustment role in increasingly integrated European labour markets. However, close to 90% of emigrants are youths and prime-age workers, and anecdotal evidence suggests a growing share are highly-skilled people, some of whom are young graduates choosing to enter the labour market abroad.

Their permanent departure would take a high toll on economic performance in areas as distinct as innovative capacity, pension systems and housing market prospects.

### *A coherent strategy to foster return to work*

The government has acted to address the challenge of unemployment, including with the Jobs Initiative launched in May 2011. Further measures, underpinned by a broad social consensus, would foster return to work and thus stave off rising social exclusion. The three pillars of such a plan should be: *i)* welfare reform, *ii)* better activation policies, and *iii)* a sustained reduction in unit labour costs. The latter, essential to further improve competitiveness, requires medium-term wage restraint, with the public sector setting the tone for the rest of the economy. Cuts in employers' social contributions for low-skilled workers can also provide a short-term boost to labour demand, and thus speed up labour market adjustment.

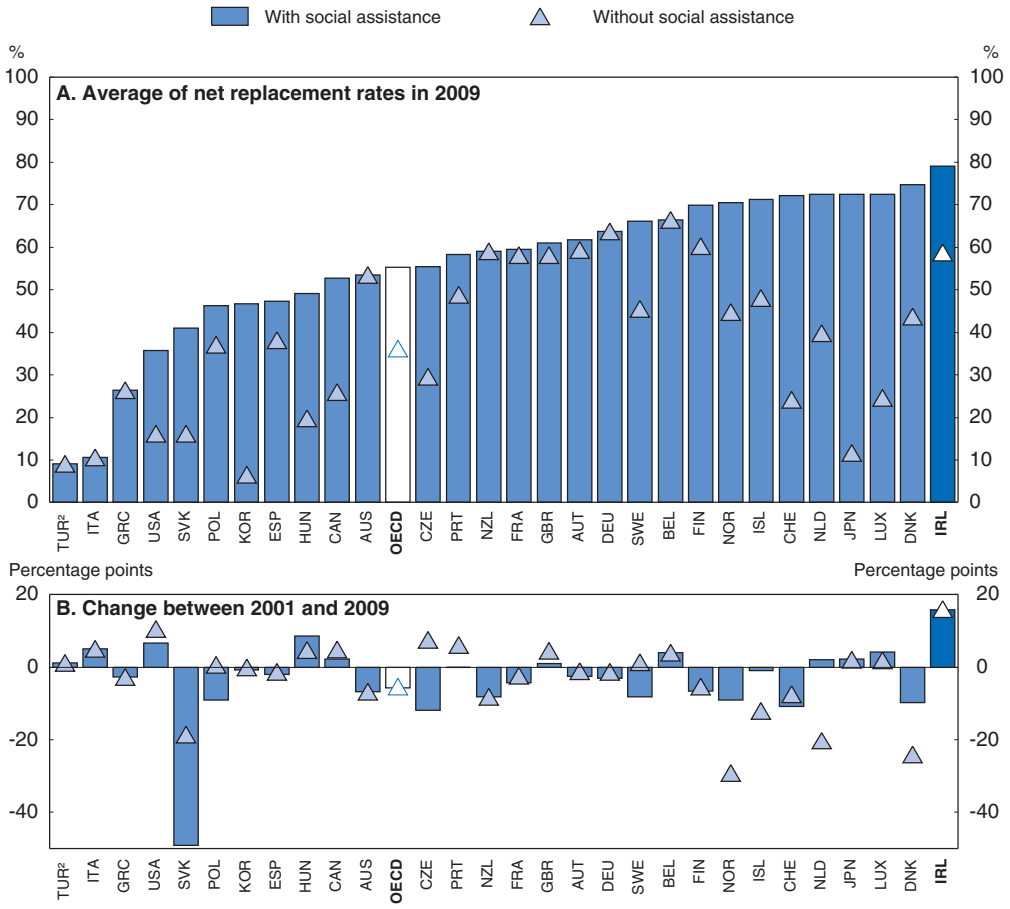
### *High replacement rates may result in inactivity traps*

After very substantial increases up to 2009, long-term average unemployment benefit (UB) replacement rates in Ireland stand among the highest in the OECD (Figure 10). Although nominal UB levels for prime-age workers were reduced by around 4% in both 2010 and 2011, they are still marginally above 2007 levels in real terms and, account taken of declining wages and personal income tax hikes, replacement rates fell by only 1 or 2 percentage points in 2010, and probably even less in 2011. Other benefits, such as rent supplements, tend to further increase replacement rates. Though the level of income replacement upon becoming unemployed is below average, the flat-rate nature and unlimited duration of Irish unemployment benefits implies higher replacement rates at low wages and (in international comparison) as unemployment duration rises. Disincentive effects are therefore stronger for low-skilled workers and the long-term unemployed, adding to the risk of entrenching high structural unemployment. Part-time workers, who are generally eligible for unemployment benefit, often face high disincentives to move to a full-time job. Benefit cuts have not addressed one of the system's main shortcomings, notably non-tapering replacement rates. Reducing rates with unemployment duration would mitigate hysteresis effects and lower fiscal costs (OECD, 2011).

A review of other welfare benefits is also essential to make Irish social protection more coherent, incentive-compatible and simpler to administer. Safety-net payments (basic supplementary welfare allowance) should be reformed in tandem with unemployment benefits, so as to ensure that the former never exceed the value of the latter. Another case in point is rent supplement, a means-tested benefit paid to those renting from a private landlord. Its impact on replacement rates can be substantial (see Figure 10), as gaining a full-time job (30 or more hours per week) generally implies total loss of benefit. To reduce disincentive effects, the authorities should implement plans to transfer households from rent supplement to other social housing models, such as the Rental Accommodation Scheme (RAS). Under the latter (which involves a three-way relationship between landlord, tenant, and a local authority), a full-time job does not in general determine loss of eligibility, but rather a larger household contribution towards the total cost of rent. In this

Figure 10. **Average of net replacement rates over 60 months of unemployment, 2009**

For four family types and two earnings levels, in per cent[1]




*Note:* Ranked in ascending order of average of net replacement rates with social assistance. For Ireland, the difference between net replacement rates with and without social assistance is accounted for by housing benefit (Rent Supplement).

1. Unweighted averages, for earnings levels of 67% and 100% of Average Worker. Family types are: single person with no children, one-earner married couple with no children, lone parent with two children and one-earner married couple with two children. Any income taxes payable on unemployment benefits are determined in relation to annualised benefit values (*i.e.* monthly values multiplied by 12) even if the maximum benefit duration is shorter than 12 months. For married couples the percentage of AW relates to one spouse only; the second spouse is assumed to be "inactive" with no earnings. Children are aged four and six and neither childcare benefits nor childcare costs are considered.
2. Calculations are based on Average Production Worker (ISIC D). Data refer to 2005-09.

*Source:* OECD, *Tax-Benefit Models*.

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context, the current RAS eligibility requirement of an 18-month period of rent supplement receipt should be reconsidered.

### *The matching of jobs and job seekers could be improved*

Effective job search assistance increases the efficiency of jobs matching and hence leads to higher outflows from joblessness. However, Irish performance in this area has suffered

from both a lack of resources and weaknesses in the procedures of the Department of Social Protection (DSP), responsible for welfare benefits, and the Training and Employment Authority (FÁS), the public employment service. DSP referrals of UB claimants to FÁS for an activation interview have had too restrictive rules, in particular excluding individuals in their second or subsequent unemployment spells, and a quarter of those eligible have never been referred (McGuinness *et al.*, 2011). When referrals have taken place, interaction with jobseekers has often been limited, and penalties for insufficient co-operation with FÁS have been seldom applied (Grubb *et al.*, 2009), which helps to explain why the activation interview did not seem to increase the chances of gaining employment (McGuinness *et al.*, 2011).

Recent efficiency-enhancing steps include bringing together benefit provision and activation through the transfer of FÁS' employment and community services to DSP (giving rise to a new National Employment and Entitlements Service), the implementation by DSP of a profiling system for the unemployed, enabling a more targeted use of resources on those facing higher risks of long-term unemployment, and reinforced sanctions for refusal to engage in active labour market programmes. These reforms are welcome, and the results should be closely monitored so that further corrections can be made as needed.

### *Training programmes should be more aligned with labour market needs*

Irish activation policy has traditionally and appropriately placed a strong emphasis on training programmes, which are essential to re-skill the unemployed into new jobs. Training courses that are closely co-ordinated with the labour market and provide occupational-specific training have been found generally effective. However, programmes geared at the most disadvantaged and mainly aiming at progression to further education or training often have over-qualified participants (Forfás, 2010), and thus low cost-efficiency. The response to the crisis has largely relied on scaling up and further diversifying training and work experience offers, which is appropriate given the lower payoff from job search in a recession. However, short courses, which were expanded the most, will not suffice to retrain former construction workers. Programmes should be focused on re-skilling the jobless for employment in new sectors, and provide them with specific skills which match labour market needs, or with general skills training if their background so requires.

The fact that FÁS has both run the public employment service and provided training has arguably reduced incentives for cost-efficiency and labour market responsiveness of the training portfolio. The ongoing integration of the public employment service into DSP, hence making placement separate from training, should be taken advantage of to evolve towards greater contestability in training provision, with DSP referring jobseekers – when appropriate – to the most suitable training programmes, which could be supplied by public or private providers (McGuinness *et al.*, 2011).

Opportunities such as apprenticeships and internships are particularly important for facilitating the entry of youth into employment (OECD, 2009a), and should also play a role in facilitating labour reallocation across sectors. Vocational training in Ireland largely relies on an apprenticeship system, whereby apprentices, hired by firms, follow a pre-determined sequence of on-the-job and off-the-job phases, generally lasting for four years

(Kis, 2010). The system offers training in mostly traditional, male-dominated trades and has become overly reliant on the construction sector. The crisis has resulted in fewer new apprentice registrations, of which construction trades still account for a sizeable share (20% in 2010), and has given rise to a growing problem of redundant apprentices. The policy response has been guided by the overriding aim of training completion – for instance, by subsidising employers who engage redundant apprentices to complete on-the-job phases. The authorities should stop subsidising completion for apprentices in the early phases of construction trades and temporarily close new registrations in those trades. There is a case for enlarging the set of trades covered according to labour market needs and for making programme duration more flexible, such as shortening it for less technically-demanding trades. As was the case with training schemes, post-secondary vocational education programmes, such as Post Leaving Certificate (PLC) courses, have also been expanded in response to the crisis. However, their effectiveness is hampered by the very limited amount of workplace training provided, generally as short as 3 weeks (Kis, 2010), and for these programmes workplace training periods should be extended.

Compared with other OECD countries, Irish spending on ALMPs has been heavily tilted towards direct job creation programmes. The largest one is the Community Employment (CE) scheme, which gave part-time occupation in the provision of non-market services for local communities to over 23 000 participants at end-2010 (more than 1% of the labour force). The result, after rather long participation spells (3 years on average, more for older workers), is often a return to long-term unemployment (McGuinness *et al.*, 2011). The authorities have nonetheless created new CE places during the crisis, and are rolling out a new job creation programme, the Community Work Placement Initiative (Tús). Irish job creation schemes can help boost social inclusion but are not an effective pathway to employment and should therefore be used as a last resort activation policy. Participation periods should be shortened, with possible exceptions for workers with severe impediments to employment.

### *Tax wedge reductions could favour employment of the low skilled*

The authorities have decided to temporarily halve the 8.5% rate of employers' social security contributions (Pay Related Social Insurance, PRSI) on weekly wages up to EUR 356, a threshold only 5.5% above the national minimum wage. This should favour employment of the low skilled, and hotels and restaurants will benefit the most, thus boosting the cost competitiveness of tourism. For the full amount of weekly wages above EUR 356 a higher PRSI rate (10.75%) continues to apply. Far more broad-based than previous job subsidies (such as those under the Employer Job Incentive Scheme, which targeted new net hiring with additional eligibility requirements), this PRSI cut will involve higher deadweight losses, but will also be easier to monitor and administer. The authorities are advised not to withdraw the PRSI reduction by end-2013, as scheduled. They should smooth the discontinuity at 356 EUR, which distorts the wage distribution, and ensure that compensating budget measures are in place so as not to endanger fiscal consolidation targets.

Box 3. **Recommendations for preventing a permanent increase in structural unemployment**

- Decrease unemployment benefits with unemployment duration.
- Review the coherence and work incentive effects of other welfare benefits.
- Continue efforts to increase efficiency in public employment services and engage more actively with jobseekers, while enforcing tighter requirements for job search and participation in relevant ALMPs.
- To help reabsorb the unemployed into the labour market, improve the alignment of training programmes with participants' background and labour market skill needs, enlarge the set of trades covered by apprenticeship programmes, temporarily close apprentice admission in construction trades and increase workplace training in vocational education programmes.
- Reduce participation periods in job creation schemes, to be used as a last resort activation measure.
- Extend the duration of the recent cut in employers' social security contributions (PRSI) for low-wage workers.

## Export-led growth requires further gains in competitiveness

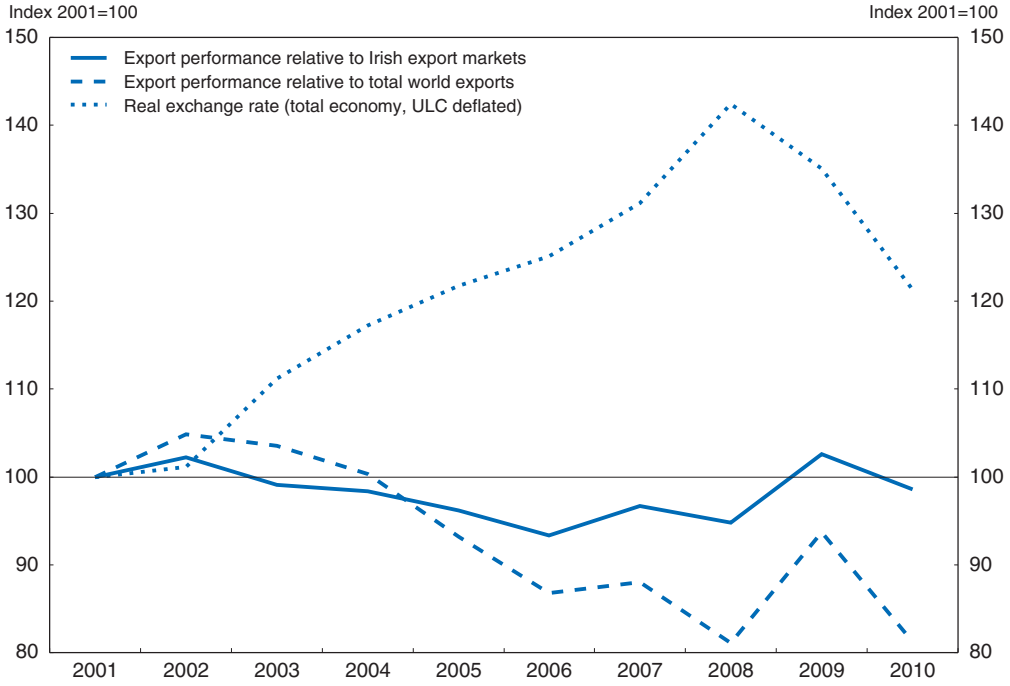
### *Productivity stalled and competitiveness deteriorated in the run-up to the crisis*

After surging from the mid-nineties to the early years of the new millennium, Irish labour productivity growth decelerated markedly and fell below the OECD average during 2003-07. Part of this slowdown was compositional, stemming from structural changes, with growing employment in labour intensive activities, most prominently the construction sector. Export performance also deteriorated in the run-up to the crisis, in tandem with losses in cost competitiveness (Figure 11). Besides losing ground in its main export destinations, Ireland also suffered from a lack of significant penetration in fast-growing emerging markets.

### *Competitiveness is improving, but further labour cost adjustment is needed*

International competitiveness has improved in the past two years, and there are signs of an export-led recovery (see Figure 11). Strong performance of the chemical sector, mainly pharmaceuticals, has underpinned progress in overall export market shares, benefitting from gains in specific markets and (in 2009) from the fairly acyclical nature of the industry. More recently, food exports have also performed strongly, indicative of a broadening of the export recovery. During 2008-10, the real exchange rate (total economy unit labour costs compared to trading partners) has depreciated by 15%, due to both productivity gains and wage restraint, and Ireland recorded the largest decrease in unit labour costs among euro area countries. Though the largest cuts in nominal wage rates have taken place in the public sector (in 2010), private firms have also trimmed average earnings per week, mainly through lower hours worked but also, in some sectors (like construction, restaurants and hotels), through a reduction in earnings per hour.

Figure 11. **Competitiveness and export performance indicators[1]**




1. Export performance refers to goods and services. Irish export markets are defined with reference to an average of import volume growth in 44 economic partners, weighted according to their importance in Irish exports, and therefore attaching modest weights to emerging markets. Total world exports avoid this problem, but are defined in nominal terms, and hence are affected by price developments (*e.g.* of oil).

*Source:* European Central Bank (ECB) and *OECD Economic Outlook Database*.

StatLink http://dx.doi.org/10.1787/888932527091

However, further gains in cost competitiveness are needed. Controlling for changes in the composition of output, which have affected aggregate productivity (O'Brien, 2011), Ireland's real exchange rate is back to 2005-06 levels, when loss of competitiveness and market shares was already well under way (see Figure 11). Further wage moderation is therefore needed, which requires support from social partners in the framework of an integrated strategy to promote a return to work. Labour costs are of particular importance to traditional, labour-intensive sectors, which have been slower to recover from the crisis and where trade tends to be more price-sensitive and more exposed to euro-sterling exchange rate developments.

### *Reducing non-labour costs through better regulation and enhanced competition in non-tradables*

The competitiveness of tradable sectors also depends on largely non-tradable inputs. Electricity remains expensive in international comparison, and evidence suggests that the retail margin is probably too high (Devitt *et al.*, 2011). The state-owned Electricity Supply Board (ESB) owns the transmission and distribution networks, operates the latter (Eirgrid, also state-owned, operates the former), and is also a major player in generation and supply, both of which are now fully open to competition. This high degree of vertical integration

should be decreased by transferring the ownership of the transmission network to Eirgrid and possibly by additional reductions of ESB's generating capacity (Review Group on State Assets and Liabilities, 2011). It is also important that the target of sourcing 40% of electricity from renewables by 2020 is achieved at least cost. A feed-in tariff scheme (REFIT), whose cost is passed on to consumers, guarantees minimum prices for electricity from onshore wind and other renewable sources, such as offshore wind, tidal or wave energy. Encouraging investment in these latter sources will risk increasing electricity costs with no net environmental gains (Fitz Gerald, 2011), as they enjoy guaranteed prices 2 to 3 times higher than those received by onshore wind generators. Furthermore, on top of guaranteed prices, REFIT also makes a fixed payment per MWh produced. REFIT should therefore be made more cost efficient by discontinuing support for offshore wind, tidal or wave electricity and suppressing fixed payments.

Enforcement of Irish competition law continues to be hampered. As in some other countries, there is an emphasis on criminal rather than civil law and the corresponding very high standard of proof implies that in practice sanctions can only be imposed in cases of flagrant cartel behaviour. To promote stronger competition, civil fines should be introduced. Further, no exemptions from competition law should be granted for collective bargaining, as has been sought by some representative bodies in medical professions. For the legal professions, setting up an independent regulator and encouraging competition should help to bring down fees, currently high by international comparison. As part of its commitments under the EU-IMF programme, the government is also exposing sheltered sectors to competition.

### *Domestic firms need to become more productive and export-oriented*

Irish-owned firms, mostly SMEs, must lie at the heart of an integrated strategy to return to healthy growth and job creation, as they account for around 90% of private sector employment. Given macroeconomic conditions, their growth will require much greater focus on export markets, supported by further gains in cost competitiveness. Better training policies and enhanced banking sector ability to provide credit on a sound basis will also assist in increasing SME productivity. At firm level, the most productive firms are in a better position to become exporters, or even investors in foreign markets (Helpman *et al.*, 2004); in turn, exporting may also promote productivity gains, for instance through greater investment in innovation (Siedschlag *et al.*, 2010). Hence supports to internationalisation and particularly greater SME involvement in R&D are mutually reinforcing components of a strategy for long-term growth. The former supports (in areas like consultancy expertise, trade missions or market research) are broadly in place, though there is scope for institutional streamlining among the agencies involved. As for innovation policies, more and better focused efforts to promote co-operation between industry and researchers are needed. In the long run, a high-quality and equitable education system is key to economic prosperity and social cohesion.

### *FDI remains of central importance*

Foreign multinational corporations (MNCs) have played a central role in Irish economic growth, and it is essential that Ireland remains attractive for FDI. These firms account for

over two-thirds of Irish exports and of business sector R&D, and have far higher productivity levels than their Irish-owned counterparts. FDI attractiveness is fostered by a host of factors: an open economy with flexible product and labour markets, high levels of human capital, low and stable corporate taxes, favourable geographical and cultural factors, and low regulatory burdens on business. Besides supporting domestic firms and employment, policies to further improve cost-competitiveness and increase labour productivity – in particular those focusing on labour force skills, education, R&D and more efficient product markets in non-tradables – will also help to preserve and enhance Ireland's attractiveness for FDI investors. Though input-output linkages with indigenous firms are hindered by the dominance of global supply chains, the presence of MNCs can promote valuable spillovers in the areas of human capital and R&D.

### *Efforts to promote R&D should be better focused at technology transfer*

Despite the crisis, Ireland has managed to continue to make progress on the research and innovation front. Gross expenditure on R&D (GERD) increased from 1.3% of GDP in 2007 to 1.8% in 2009, as nominal spending kept growing at a strong pace. Progress was also substantial among companies, with business expenditure on R&D increasing from 0.8% of GDP in 2007 to the EU average of 1.2% in 2009. In the light of economic and budgetary difficulties, the target of making GERD reach 2.5% of GNP has been postponed from 2013 to the end of the decade. As envisaged by the authorities, public funding of R&D should at least be kept constant in nominal terms until 2014.

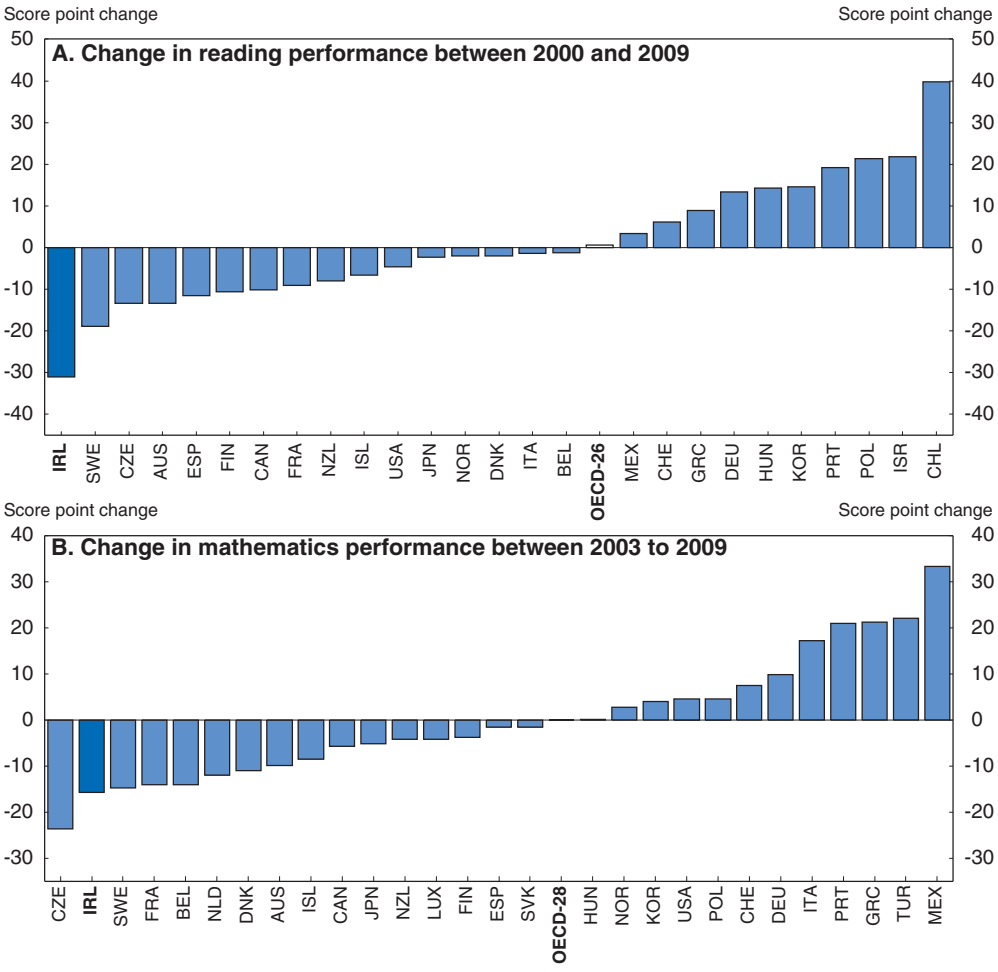
Linkages between research institutions and industry remain limited (Martin, 2009), and the overall involvement of SMEs in R&D low, despite some exceptions (such as the indigenous software sector). The authorities have been developing a range of initiatives to bring researchers and the enterprise sector into closer co-operation, often with a particular focus on SMEs, which should be expanded. Furthermore, the need remains for more concentration of resources in a smaller number of centres of excellence, informed by systematic assessment of the existing programmes and supported institutions. Fewer and larger actors in the research arena would also contribute to ease interaction with MNCs.

### *High-quality education helps to foster long-term growth*

To preserve its strengths in human capital, Ireland needs to ensure a high quality of education. Yet serious concerns have emerged. The PISA 2009 outcomes (which measure achievement of 15-year olds) declined sharply in reading and mathematics performance (Figure 12). Irish scores now stand at average OECD levels (reading) or below (maths). At the same time, after massive increases over the past decade, Ireland caught up with the average OECD education spending levels, and then even exceeded them (by around 10% in 2007, taking PPP-adjusted cumulative expenditure per student aged 6 to 15).

The Irish school system is characterised by limited accountability mechanisms. Results from TALIS (OECD, 2009b), a survey focussing on lower secondary education in 23 countries, show that Ireland had the 4th highest percentage of teachers not having received any appraisal or feedback in their schools (26%), and the highest share of teachers

Figure 12. **Changes in student performance**




*Note:* Countries are ranked in ascending order of the score point change. Zone aggregates are unweighted averages.
*Source:* OECD, *PISA 2009 Database*, Tables V.2.1 and V.3.1.

StatLink http://dx.doi.org/10.1787/888932527110

working in schools where no evaluation had been conducted over the past 5 years (39%). Inspection of the work of individual teachers falls almost exclusively on primary teachers on probation, and limited data on comparative school performance is made public. The authorities should set up mechanisms to systematically evaluate teachers' and schools' performance, and make the latter public once adjusted for socio-economic background. Evaluation results should have implications for career progression, and inform any needed corrective action in relevant areas. These include teacher training, where shortcomings have been detected at primary and secondary levels, especially in maths.

Pre-primary school attendance has both a positive impact on later educational performance and an equity-enhancing effect, reducing the persistence of educational inequality across generations (Causa and Chapuis, 2009). Ireland has long lagged other countries in this area, with a 2009 enrolment rate for 3 and 4-year-olds of only 23%, a third of the OECD average (70%). In a welcome step, the government replaced the Early Childcare Supplement (a welfare payment) in 2010 by a free Pre-School Year, open to 3 and 4 year-olds

and intended to precede the two-year infant cycle of primary schools (where children must be at least 4 at the start of the school year). However, classes last only 3 hours a day, against around 5 hours for primary school's infant cycle. The authorities should therefore reallocate budget funds to increase the duration of daily classes in the Pre-School Year.

Box 4. **Summary of recommendations for further improving competitiveness**

- Decrease vertical integration in electricity and reform the feed-in tariff scheme for renewables.
- Introduce civil fines in competition law.
- Increase competition in professional services.
- Devote more and better focused efforts to promote co-operation between industry and researchers.
- Systematically evaluate teachers' and schools' performance, and use the results to inform corrective action.
- Reallocate budget funds so as to increase the duration of daily classes in the Pre-School Year.

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# ANNEX A1

# *Progress in structural reform*

This annex reviews actions taken on recommendations from previous *Surveys*.

| Recommendations from previous *Surveys* | Action taken since the November 2009 *Survey* |
|---|---|
| **Banking and finance** | |
| Transfer assets to NAMA at the appropriate price with risk-sharing mechanisms to protect the taxpayer. | To date EUR 71.3 billion in loans have transferred to NAMA at a 58% discount. |
| Provide additional capital to the banks as required in the form of common equity shares. | Prudential Capital Assessment Review (PCAR) and Prudential Liquidity Assessment Review (PLAR) exercises – "stress tests" completed in March and May 2011 to determine capital requirements for six domestic banks. Government by end July 2011 will have provided an estimated EUR 63 billion (40% of GDP) in total to support the banking system in the form of core tier 1 capital (or circa an additional EUR 52 bn since the Nov. 2009 survey). |
| Introduce a special resolution and bankruptcy mechanism for banks. | Prepared Special Resolution Regime Bill to ensure the State has in place a range of tools to address problem institutions effectively in the interests of maintaining financial stability, minimising reliance on public funds, protecting depositors and ensuring continuity of key banking activities. |
| Increase resources to monitor major financial institutions. Increase use of a rules-based approach, including quantitative limits on overall bank leverage. | Changes to the structure and approach to banking supervision have been outlined in Central Bank of Ireland publications: "Banking Supervision: Our new approach", published in June 2010, and in "Banking Supervision: Our approach, 2011 update", published in June 2011. Changes include: increasing Central bank staff numbers in financial supervision divisions and reorganising these divisions; establishing governance and risk experts panels; developing a new risk assessment model (PRISM); putting new corporate governance and related party lending codes into effect from 1 Jan. 2011; assessing senior appointees to major banks through interviews; implementing EU Capital requirements Directive and EBA guidelines on bank remuneration; implementing new rules on large exposures; implementing new standards on liquidity including a net stability funding ratio and liquidity cover ratio in line with Basel III; implementing in December 2011 new credit risk management and valuation standards. The government published the Central Bank (Supervision and Enforcement) Bill 2011 in July 2011. This will strengthen the ability of the Central Bank to impose and supervise compliance with regulatory requirements and to undertake timely prudential interventions. The bill will provide the Central Bank with greater access to information and analysis and will underpin the credible enforcement of Irish financial services legislation in line with international best practice. |

| Recommendations from previous *Surveys* | Action taken since the November 2009 *Survey* |
|---|---|
| Reduce the deposit guarantee scheme payout time and set the fee in line with the level of protection and the risk of claims. | The deposit guarantee scheme payout time will be reduced on the basis of the recast Deposit Guarantee Scheme (DGS) directive. It is likely that member states will have a maximum of 20 days to make the payout, with the option to have a shorter payout period. The Central Bank of Ireland is considering options to impose a shorter payout period than that required by the directive. The recast directive will also likely introduce risk-based elements for bank contributions to DGS, based on a common template, and which will be developed by the European Banking Authority. In Ireland, the Minister already has the power to introduce risk based contributions through the Financial Services (Deposit Guarantee Scheme) Act 2009. However, it is not anticipated that risk-based contributions will be introduced until the recast directive is finalised. |
| Publish an annual financial stability report. | No report published by the Central Bank since 2007. |
| Develop more effective macroprudential instruments, which could include an overall leverage ratio and either dynamic provisioning or counter-cyclical capital requirements. | The Central Bank of Ireland has published proposals on provisioning in its June 2011 publication "Banking Supervision: Our approach, 2011 update". |
| **Fiscal policy** | |
| Broaden the tax base. Many tax reliefs should be eliminated. In other cases, deductibility should be at the standard rather than the marginal rate and the overall amount of relief capped. Continue to phase out mortgage-interest tax relief, and introduce a property or capital gains tax on owner-occupied housing. | Budget and Finance Act 2011:<br>● Reduced income tax credits and bands by 10%, which will lower the threshold at which income becomes taxable.<br>● Reduced stamp duty on all residential property transactions (now 1% on values up to EUR 1 million, 2% on any balance over EUR 1 million) while abolishing various exemptions and reliefs.<br>● Removed the EUR 75 000 ceiling for pay subject to pay related social insurance contribution (PRSI).<br>● Reduced the Capital Acquisitions Tax group tax-free thresholds for gifts and inheritances were by 20%.<br>● Abolished relief in respect of Trade Union Subscription.<br>● Abolished exemption from Benefit-In-Kind taxation for employer provided childcare.<br>● Abolished relief for new shares purchased by employees.<br>● Abolished tax relief for the Approved Share Options Schemes.<br>● Introduced the application of the Universal Social Charge and employee PRSI to share based remuneration.<br>● Introduced phasing out of tax relief for rent paid for private property and on the interest element of loans to acquire an interest in certain companies.<br>Finance Act 2010: made changes to the restriction of reliefs measure to ensure that high earners subject to the full restriction pay an effective income tax rate of 30% instead of from 20%.<br>It is proposed to introduce a new, annual, recurrent property tax in 2012. |
| Recently introduced levies should be integrated into the income tax system and personal allowances reduced only once the income tax base has been repaired. | Budget 2011, replaced the income and health levies with a universal social charge. |
| Investment spending should be reduced. User charges should be extended where possible. | Government gross capital formation reduced from 5.4% of GDP in 2008 to 4% in 2009 and 3.7% in 2010. |
| Public-sector remuneration should be reviewed independently, taking into account falling private-sector wages and conditions. Reduce public sector employment. | Public sector employment numbers reduced from 319 450 in 2008 to 307 900 in 2010. Basic salaries cut from 5 to 15% on 1 January 2010. Pay reduced by 10% for new entrants to public service. |
| Target social welfare spending more. Consider wider use of means-testing. Benefits should in general be subject to tax. Review benefits in the light of falling wages. | Working age payments cut on average by 10% since 2009 and child benefit lowered in both the 2010 and 2011 Budgets. |
| Reduce costs and redeploy manpower resources in the health sector. Review the Medical Card scheme and tax deduction of medical expenditures. | Management, general and administrative staff numbers reduced by 2214 between 2010 Q1 and 2011 Q1. The Government is implementing a major reform programme for the health services to deliver a universal health insurance system (UHI). The operation of the medical card scheme and the tax deduction of medical expenditures will be reviewed in the context of developing implementation proposals for UHI. |

| Recommendations from previous *Surveys* | Action taken since the November 2009 *Survey* |
|---|---|
| The multi-annual outline for current expenditure should be made permanent. An overall expenditure ceiling should be introduced. | The government is committed to the introduction in 2011 of a medium-term expenditure framework with binding multi-annual expenditure ceilings with broad coverage and consistent with the fiscal consolidation targets. These ceilings will incorporate the findings of the Comprehensive Review of Expenditure currently ongoing. |
| Consideration should be given to the creation of an expert independent fiscal council. | Introduced independent Fiscal Advisory Council in July 2011. |
| Publish a complete balance sheet for the public sector, including liabilities under PPP contracts and items related to support for banks. | Since 2009, the Comptroller and Auditor General's Annual Report includes financial commitments for PPPs, including outstanding commitments. |
| Reduce the overall number of public bodies and agencies. | Total national level public sector agencies reduced by 10 to 249 between April 2007 and April 2010. |
| **Labour market and welfare** | |
| Unemployment benefits should be reduced in line with falling earnings. | Benefits were reduced by around 4% in both 2010 and 2011. Reduced rates were introduced for youths (2009) and those under 25 (2010). |
| Redesign unemployment-related social benefits to reduce disincentives to enter employment, particularly for benefits with high taper rates such as Rent Supplement. | Maximum rent levels under Rent Supplement were revised downwards (2010). |
| Tighten activation requirements for the unemployed and reduce benefit payments for non-compliance. | Reduced benefit rates for non-compliance were introduced in April 2011. |
| Unify the administration of unemployment-related policies in a single government body. | FÁS employment and community services are being transferred to the Department of Social Protection. |
| Re-assess the minimum wage on annual basis and take into account falling wages. Re-consider the system of sectoral minimum wages. | The hourly national minimum wage was reduced from EUR 8.65 to EUR 7.65 in February 2011, and brought back to EUR 8.65 in July 2011. No action on sectoral wage agreements, though a review of these agreements has been completed and was published in May 2011. |
| Consider implementing a single welfare payment for other working-age adults than unemployed. | No action, but a report on a single welfare payment has been produced and possible changes are being examined. |
| Increase the supply of childcare further. Phase out the Home Carer's Tax Credit. Prioritise access to community childcare to working parents, especially lone parents. | Capital investment under the National Childcare Investment Programme 2006-10 (NCIP) resulted in the creation of a further 25 000 childcare places. With the economic downturn, applications ceased to be approved after February 2008. The downturn has resulted in a significant reduction in demand for childcare and the main policy objective since 2009 has been to sustain the existing investment since 2000. This policy is being supported through the following support programmes:<br>• the free Pre-School in Early Childhood Care and Education (ECCE) programme, which was introduced in January 2010 and in which 94% of eligible children are participating;<br>• the Community Childcare Subvention (CCS) programme, which was amended in September 2010 to increase supports for low income working parents, including lone parents; and<br>• the Childcare Education and Training Support (CETS) programme, which was introduced in September 2010 to provide free childcare places to qualifying parents undertaking FAS and VEC training, for the duration of their course. |
| Ensure that higher tax rates and burdens do not unnecessarily impact on the incentives of second-earners to work. Consider moving to full individual taxation. | No action. |
| Require lone parents to seek work once their children reach school age. | Eligibility for One Parent Family Payment was restricted, with age limit for youngest child brought down from 18 to 14 (April 2011). For existing claimants, the change will be phased in gradually. |
| Systematically evaluate the work capacity of disability benefit recipients. Illness benefit should be limited to one year, after which recipients should be assessed for their work capacity. | See below in respect of partial capacity scheme. No progress made on changes to disability benefit/illness benefit. |
| Employment services for the disabled should be focussed on helping people to access mainstream employment. | A partial capacity scheme to encourage individuals into work is in the process of being introduced. |

| Recommendations from previous *Surveys* | Action taken since the November 2009 *Survey* |
|---|---|
| Offer an actuarially-equivalent increase in the state pension for deferred retirement. Consider making the value of the contributory pension more sensitive to the number of years of contribution. Eliminate incentives for older workers to exit the labour market through disability schemes. | No action, though the issue is being considered in the context of the implementation of the National Pensions Framework. |
| **Competition** | |
| Increase sanctions. Consider a competition framework based on civil law. | No action but under active consideration with the Troika. |
| Transfer the ownership of the electricity transmission network assets from the ESB to EirGrid. | No action, but the matter remains under examination and a decision is expected shortly. |
| Lift caps on the overall size of retail premises, drop the requirement for new stores to make an economic case for their implantation and remove the right to object of incumbent stores. | No action, but a Forfás report has been completed and submitted to the commissioning Departments and the EU Commission. A commitment has been given to the EU Commission to publish the report simultaneously with the publication of a consultation draft of revised Retail Planning Guidelines, in October 2011. |
| Lower margins in the pharmacy sector. Remove restrictions on the number of medical school places. | The Health Professionals (Reduction of Payments to Community Pharmacy Contractors) Regulations 2011 reduce wholesale and retail margins paid to community pharmacy contractors. Government policy since 2006 is to bring the intake of EU students into Irish medical schools to 725 *per annum* and to have the proportion of non-EU students at no more than 25% of the total student intake. |
| In the legal profession, speed up the registration process for foreign professionals. Establish an independent regulator. | Details of a Legal Services Bill are being finalised by the Minister for Justice, which will provide for an Independent Regulator of the legal profession, provide for better regulation of legal costs (including the taxation of such costs) and ensure that complaints procedures and legal professional practice and education better reflect modern working and market realities. This Bill is to be published in October 2011. |
| Remove the restrictions on the bus routes that can be operated by private firms and appoint independent regulators to cover the entire network. | An independent regulator for the bus routes has been established. A revised and more modern licensing regime for commercial bus services has been introduced and a contractual regime, which reflects developments in the EU, has been introduced in relation to the provision of PSO bus services. |
| **Infrastructure, education and innovation** | |
| Charge households for the provision of water, and sewage treatment. Introduce a congestion charge in central Dublin. | No action, but an independent assessment of the transfer of responsibility for water services provision from local authorities to a water utility will be completed in October 2011 with a view to proposals being brought forward based on the recommendations to facilitate the introduction of domestic water charges by 2013. |
| Generalise pre-primary education from the age of three and expand the duration of daily classes when resources permit. | A universal free Pre-School year was introduced (2010) for children aged between 3 years and 2 months and 4 years and 7 months. Pre-school year sessions of 2¼ or 3 hours daily are provided to children attending 50 weeks and 38 weeks per year, respectively. |
| Introduce fees and income-contingent loans for third-level education. Secondary-level class sizes could be increased. Raise the school-leaving age to 18. | No decision taken on the introduction of third level tuition fees and income-contingent loans. However, from 2011/2012 academic year, a new student contribution charge of EUR 2 000 has replaced the existing Student Services Charge of EUR 1 500. |
| Concentrate support for research in fewer centres of excellence. Improve co-ordination between researchers and with industry. | Several initiatives scaled up to foster co-operation between researchers and industry and commercialisation of research outputs (Competence Centres, Innovation Vouchers, Technology Research Centres, Innovation Partnerships, Industry led Networks, Business Partners Programme and the Commercialisation Fund). SFI (Science Foundation Ireland)/EI (Enterprise Ireland) Technology Innovation Development Award introduced. SFI-funded researcher's connectivity to industry has doubled in 2 years with 534 companies now directly engaged with SFI funded researchers. |

*Chapter 1*

# Getting back on track: restoring fiscal sustainability

*Ireland's banking crisis, one of the most severe in the OECD area, and the associated economic recession have taken a heavy toll on public finances. Large public deficits have accumulated since 2008 and net public debt, which had been eliminated, has soared once again. The rapid deterioration of the fiscal accounts, together with the government guarantee of banks' liabilities, has led to Ireland losing the confidence of the sovereign bond market and requiring financial assistance from the international community. With one of the highest levels of gross public debt relative to GDP in the OECD, high bond spreads and weak nominal GDP growth, returning to a healthy fiscal position poses a significant challenge. A sustained effort will be needed to eliminate the budget deficit, regain the confidence of financial markets and to seek to increase trend growth through appropriate structural reforms. The economic adjustment programme supported by the IMF and the EU foresees a gradual consolidation of the public finances to stabilise and reduce the debt to GDP ratio and restore fiscal sustainability. The programme builds on significant progress that has already been made to contain the deterioration of fiscal accounts and the government plans to introduce further fiscal adjustment in 2012 and later years in line with the programme. The programme also foresees a strengthening of the fiscal framework, with large institutional changes intended to secure a path of fiscal sustainability in the medium-term. The consolidation effort is also underpinned by efforts to increase public sector efficiency, which provides a growth-friendly avenue for reducing the deficit in a durable way.*

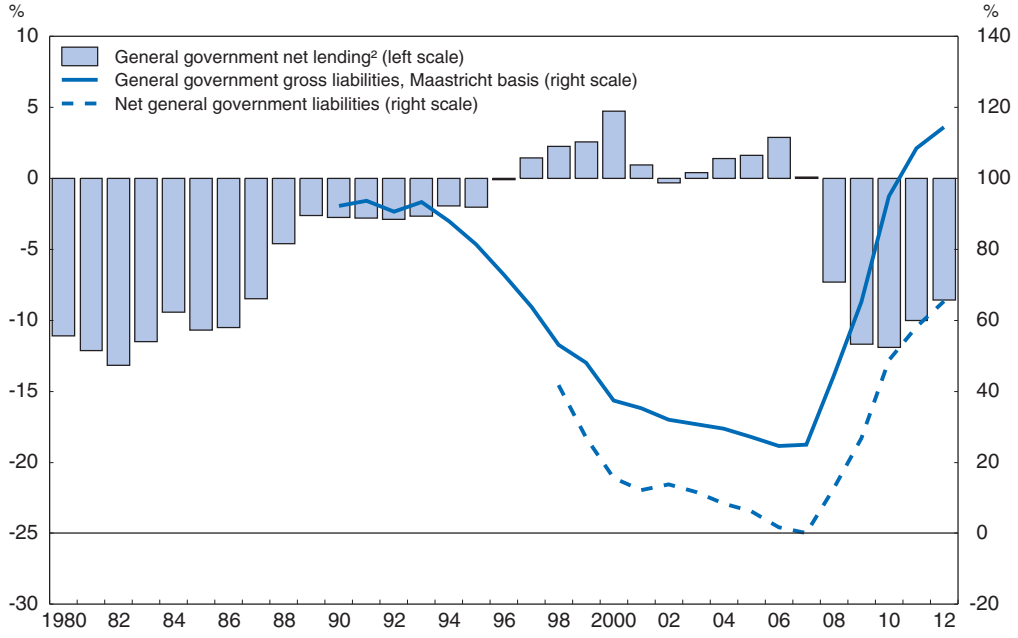
This chapter discusses Ireland's fiscal consolidation effort and progress in establishing a new fiscal framework and improving public sector efficiency. The first section covers the current fiscal situation and plans to reduce the deficit. This is followed by a discussion of the main elements of the planned new medium-term fiscal framework, including fiscal rules and the newly established Fiscal Advisory Council. A final section examines the government's public efficiency programme with a focus on performance indicators, contestability and human resource management.

## Ireland's fiscal consolidation strategy

The recession and banking crisis transformed Ireland's fiscal position from one of the strongest in the OECD to one of the weakest. Rapid rises in current outlays and the large cost of bank support measures caused the headline fiscal balance to fall from a surplus of 2.9% of GDP in 2006 to a deficit of 32% (11.9% excluding banking support measures) in 2010, resulting in a sharp rise in general government debt (Figure 1.1). Social security outlays and debt interest have both increased sharply (Table 1.1). Financial markets eventually concluded that the extensive bank guarantee made by the government posed a threat to

Figure 1.1. **long-term perspective on fiscal developments**[1]

As a percentage of GDP




1. Projections for 2011 and 2012.
2. Net lending in 2009 and 2010 includes 2.5% and 20.1% of GDP respectively in bank support measures.

*Source: OECD Economic Outlook Database.*

StatLink http://dx.doi.org/10.1787/888932527129

Table 1.1. **General government receipts and outlays**

% of GDP

| | 1995-2000 | 2001-07 | 2008 | 2009 | 2010 | 2011(f) | 2012(f) |
|---|---|---|---|---|---|---|---|
| **Total current receipts** | **35.6** | **33.6** | **34.3** | **32.9** | **33.5** | **33.9** | **33.4** |
| Household direct taxes | 10.1 | 8.5 | 8.5 | 8.1 | 7.8 | 8.7 | 9.0 |
| Corporate direct taxes | 3.4 | 3.7 | 2.9 | 2.5 | 2.7 | 3.2 | 3.3 |
| Indirect taxes | 13.1 | 12.8 | 12.4 | 11.3 | 11.4 | 11.4 | 11.1 |
| Social security contributions | 5.9 | 6.0 | 7.0 | 7.2 | 7.3 | 6.5 | 6.2 |
| Other receipts | 3.2 | 2.6 | 3.4 | 3.8 | 4.2 | 4.0 | 3.7 |
| **Total current outlays** | **32.6** | **30.1** | **37.0** | **42.0** | **43.3** | **42.0** | **40.5** |
| Government consumption | 15.1 | 15.8 | 18.2 | 19.9 | 18.9 | 18.2 | 17.3 |
| Social security benefits | 9.9 | 9.2 | 12.4 | 15.2 | 15.7 | 15.1 | 14.3 |
| Interest/property income paid | 3.5 | 1.2 | 1.4 | 2.1 | 3.2 | 3.5 | 4.1 |
| Other current outlays | 4.1 | 3.9 | 5.0 | 4.8 | 5.5 | 5.2 | 4.7 |
| **Government gross saving** | **3.0** | **3.5** | **–2.7** | **–9.1** | **–9.9** | **–8.1** | **–7.1** |
| **Total receipts** | **37.3** | **34.9** | **35.5** | **33.7** | **34.2** | **34.4** | **34.0** |
| **Total outlays** | **35.8** | **33.9** | **42.8** | **47.9** | **66.2** | **44.5** | **42.6** |
| **Net lending** | **1.5** | **1.0** | **–7.3** | **–14.2** | **–32.0** | **–10.0** | **–8.6** |
| *Memorandum item* | | | | | | | |
| Capital gains and financial transactions taxes | 1.1 | 2.5 | 1.7 | | | | |
| Bank support measures | | | | 2.5 | 20.1 | | |

*Source: OECD Economic Outlook Database*; *OECD Revenue Statistics*; Stability Programme Update 2011; Budget 2011

sovereign sustainability and Irish bond yields began to rise sharply in the second half of 2010, effectively shutting out the government from market finance. The weak fiscal position, compounded by contagion from fears of sovereign debt default in Greece and uncertainty about euro area level policies on sovereign debt, resulted in 10 year bond yields rising to over 13% by July 2011. Participants in financial markets are not yet fully convinced that Ireland will be able to return to a path of fiscal sustainability, and there is ongoing risk of contagion from other countries. However, financial market sentiment towards Ireland became more favourable during the late summer, with 10 year bond yields falling markedly to below 8% despite intensifying financial turmoil elsewhere in the eurozone. This reflects a confluence of good news, including the recapitalisation of the domestic banks and the decision taken by the euro area heads of state and government on 21 July to cut the interest rate on EU official finance to Ireland. The reduction in interest rates of around 290 basis points on loans from both the EFSF and EFSM facilities will lower Ireland's interest payments by around 0.5% of GDP in 2012 and 0.7% in 2013.

Restoring fiscal sustainability will require a determined effort. After a major consolidation from 2008 to 2010 that helped arrest the deterioration in the fiscal position, the government is undertaking a medium-term programme of measures to correct its budget imbalance with the goal of returning the budget deficit below 3% of GDP by 2015 (Table 1.2). Around 60% of the consolidation measures being implemented from 2008 to 2012 are on the expenditure side, including cutting public sector wages and employee numbers, social welfare and capital spending. On the revenue side, the main measures up to 2010 were to introduce an income levy and increase social security and health levies, which were combined into one universal social charge in the 2011 Budget. Revenue is being further increased in 2011 and 2012 by broadening the income tax base, reducing the tax relief on pension contributions, cutting other tax expenditures, introducing an interim lump sum property tax (to eventually be replaced by a tax based on property values), increasing the carbon tax and reforming capital gain taxes.

Table 1.2. **Consolidation targets and measures**

% of GDP

| | 2008-10[1] | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|
| Headline fiscal balance target[2] | –11.9 | –10.0 | –8.6 | –7.2 | –4.7 | –2.8 |
| Consolidation measures required[3] | | | | 2.0 | | |
| Consolidation measures implemented and planned | 9.3 | 3.8 | 2.2 | | | |
| Expenditure | 5.7 | 2.5 | 1.3 | | | |
| Current | 4.4 | 1.3 | 1.1 | | | |
| Capital | 1.4 | 1.1 | 0.2 | | | |
| Revenue | 3.5 | 0.9 | 0.9 | | | |
| Other[4] | – | 0.4 | – | – | – | – |

*Note:* Consolidation measures planned for 2012 are consistent with those contained in the Stability Programme Update 2011 and the Joint EU-MF programme Memorandum of Understanding. The Government will set out a medium-term fiscal consolidation plan for the period 2012-2015 in the Pre-Budget Outlook in October. OECD projections for GDP are used. Totals may not add due to rounding.

1. Measured as impact of 2008-10 measures on 2010.
2. For 2010, actual fiscal balance excluding bank support measures of 20.1% of GDP. The headline general government financial balance targets are the government's. The EU-IMF programme requires that the general government deficit not exceed 10.6% of GDP in 2011, 8.6% of GDP In 2012 and 7.5% of GDP in 2013.
3. Secretariat projection of requirement to meet headline target measured as the change in the underlying primary balance.
4. Includes asset sales, increased dividends and interest cost savings.

*Source:* Stability Programme Update 2011, 2011 Budget and Secretariat calculations.

The 2011 consolidation effort appears to be on track. High-frequency information suggests total tax receipts are close to the 2011 Budget target and expenditure is being managed within the limits set out by the government. As long as the economy evolves as envisaged by the government, by the end of 2011 the government will have carried out around two-thirds of the required adjustment to meet its headline deficit target for 2015. Nevertheless, under the programme, the headline deficit, even if falling, will remain large for quite some time (still above 7% of GDP by 2013). Savings from interest rate reductions on foreign financial assistance should be put towards consolidating faster. In addition, if growth allows, the authorities should introduce further measures to reduce the deficit faster than required by the programme. This will help to improve financial market sentiment and limit the build-up of debt from already high levels and ease the future repayment burden. Ireland's very open economy means the fiscal multiplier is relatively small, which reduces the drag on the economy from greater consolidation. It is important though that deficit targets are realistic as experience to date suggests that there is a large pay-off in terms of improved financial market sentiment and lower bond yields from meeting targets even if the deficit remains large in the shorter term.

## Returning to medium-term sustainability

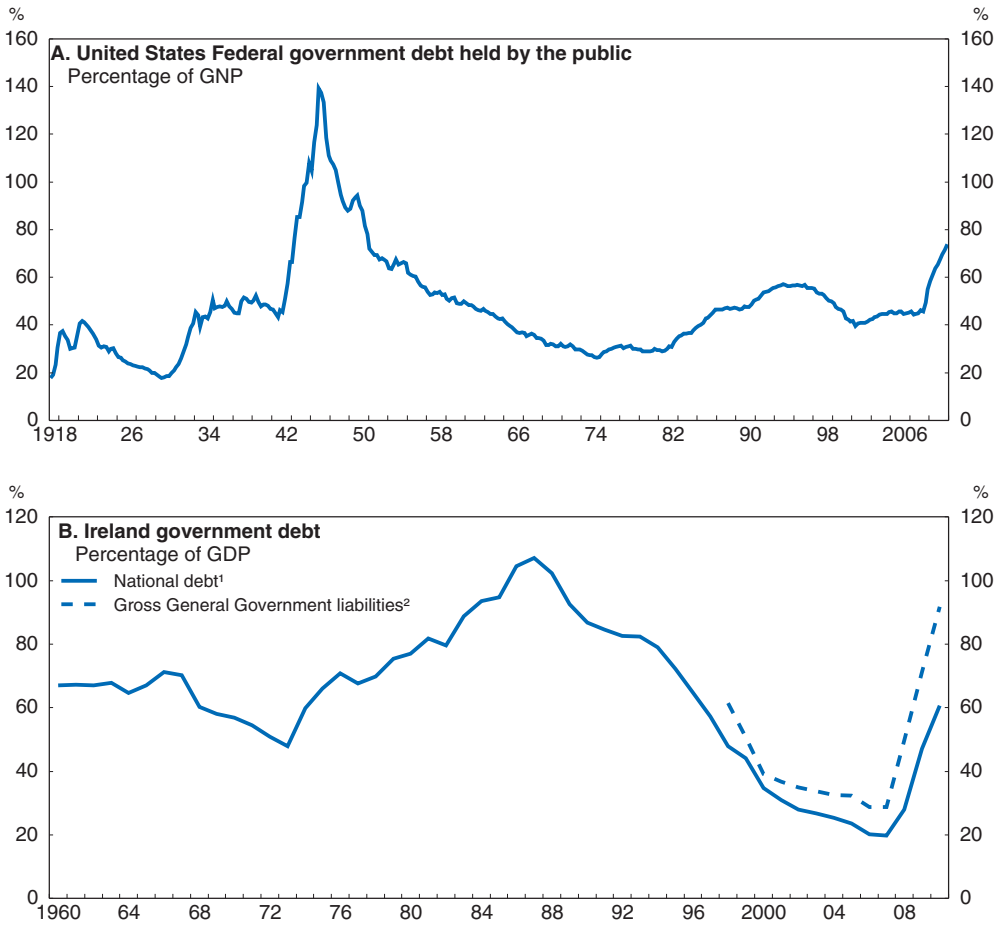
OECD projections suggest that the general government debt (Maastricht definition) will peak at around 117% of GDP in 2013, assuming that the government adheres to the adjustment programme. This high level of debt will act as a severe constraint on discretionary policy action to deal with both future cyclical downturns and structural changes the economy faces. In addition, the fiscal position needs to be strengthened to meet the upcoming pressures of ageing on public health and pension spending, which is projected to have an above-average impact on Ireland (European Commission, 2009; OECD, 2011).

Feasible plans for restoring fiscal sustainability by stabilising and reducing the debt-to-GDP ratio will be shaped by medium-term growth prospects (Box 1.1). Holding all else

### Box 1.1. **Growth and fiscal policy during debt reduction episodes**

An examination of episodes of sovereign debt reduction across time and countries suggests that output growth has an important role to play in reducing debt. This underlines the importance of Ireland carrying out structural reforms to boost growth in order to tackle fiscal problems. A historical perspective can be gained from the experiences of the United States and Ireland (Figure 1.2). In three separate episodes in the United States, sustained debt reduction has been associated with a combination of both mildly stronger growth compared with the long-run average and a roughly balanced budget rather than particularly fiscal restrictive policy in an absolute sense. From 1919-2010, real GNP growth averaged 3.1% and the budget balance averaged –3.1% of GNP. By contrast, during debt reduction phases 1921-29, 1945-74 and 1993-2001, real GNP growth averaged 4.4%, 3.7% and 3.9% respectively while the budget balance averaged 0.9%, –0.8% and –0.7% of GNP in the 3 episodes. The experience was also similar in Ireland itself. From 1961-2010, GDP growth averaged 4.5% and the budget balance averaged -4.8% of GDP, while during two debt reduction phases, 1966-73 and 1987-2007, GDP growth averaged 5.3% and 6.4% respectively and the budget balance was –3.3% and –0.6% of GDP in the two episodes.

Figure 1.2. **Sovereign debt**




1. National debt is the debt of the central government less liquid assets available for repayment of the debt.
2. Gross General Government liabilities include the National Debt as well as local liabilities and do not net off cash balances on hand.

*Source:* NBER; Irish National Treasury Management Agency and *OECD Economic Outlook Database*.

StatLink http://dx.doi.org/10.1787/888932527148

Box 1.1. **Growth and fiscal policy during debt reduction episodes** *(cont.)*

From a cross-country perspective, the available national accounts data show that, on 7 out of 9 occasions, GDP growth made a noticeable contribution to debt reduction. In some cases such as the Netherlands, the contribution from nominal GDP growth to debt reduction exceeds that of the primary balance (Table 1.3).

Table 1.3. **Decomposing sovereign debt reduction episodes**

% of GDP

| | Period | Change in gross debt[1] | Contribution of: | | | | |
|---|---|---|---|---|---|---|---|
| | | | Net interest | Primary balance | Real GDP growth | Inflation | Other[2] |
| Denmark | 1993-2007 | –58.0 | 28.7 | –41.3 | –8.6 | –6.4 | –30.5 |
| Belgium | 1993-2007 | –52.6 | 85.1 | –64.0 | –32.7 | –22.6 | –18.4 |
| Netherlands | 1993-2007 | –44.9 | 41.2 | –20.0 | –16.7 | –13.1 | –36.4 |
| New Zealand | 1993-2007 | –38.0 | 19.5 | –57.1 | –11.7 | –5.3 | 16.6 |
| Sweden | 1997-2008 | –34.8 | 19.4 | –32.2 | –2.4 | 0.3 | –19.8 |
| Spain | 1996-2007 | –33.9 | 27.1 | –21.3 | –17.3 | –15.4 | –7.0 |
| Ireland | 1999-2007 | –33.3 | 10.8 | –25.3 | –10.1 | –5.5 | –3.2 |
| Australia | 1995-2008 | –27.7 | 19.3 | –24.0 | –4.2 | –1.5 | –17.4 |
| United States | 1993-2001 | –17.4 | 24.0 | –15.6 | –13.7 | –7.0 | –5.1 |

1. Gross general government financial liabilities, SNA basis.
2. Includes changes in financial assets, valuation effects and a small residual.

*Source: OECD Economic Outlook Database* No. 89.

equal, even a relatively small increase in real growth over the medium-term of around 1% *per annum* can have a meaningful effect on the debt trajectory (Annexes 1.A1 and 1.A2). Structural reforms to raise growth (Chapters 2 and 3) thus have strong potential returns as regards fiscal sustainability. The largest contribution fiscal policy can make to achieving sustainability is to restore credibility by adhering strictly to the government's fiscal targets to help establish a virtuous circle of lower deficits and market interest rates. To gain market confidence, the government should resist any slippage and take further measures to stay on track if necessary.

## Improving the fiscal framework

The fiscal framework can make an important contribution to achieving fiscal targets and bolstering the credibility of fiscal policy. Over the past 5 years Ireland has made improvements to the framework including unifying social welfare expenditure estimates with other expenditure areas into a unified Budget, introducing annual output statements for departments, which set out outputs and expenditure on a programme basis, producing a detailed medium-term fiscal plan including expenditure ceilings (the National Recovery Plan 2011-14) in late 2010 and bringing forward the stability programme update to April from December as part of the European semester arrangements to improve fiscal management across the EU. In addition the Department of Finance publishes, on a monthly basis, expenditure and revenue out-turns versus Budget targets, allowing timely monitoring of current year fiscal progress. These various improvements provide a solid platform to introduce further wide-ranging reforms to the framework that are required under the programme, including to introduce a new fiscal responsibility law by the end of 2011 and an independent Fiscal Council that was set up in June 2011. In addition to a Fiscal

Council, it is proposed that the main elements of the overall fiscal framework will be a medium-term budget plan, a set of fiscal rules including requirements for the fiscal balance and expenditure ceilings as well as performance budgeting (Department of Finance, 2011).

### *Medium-term budgeting*

Together these framework elements can create a mutually reinforcing system to help the government meet its medium-term fiscal policy goals. Ireland's highly indebted fiscal position demands that stabilising and reducing the debt burden be the medium-term focus of fiscal policy for several years to come. To achieve this will require going beyond the standard EU medium-term objective of broadly balancing the budget. To provide a transparent anchor for the medium-term expenditure framework the government should consider adopting a medium-term target of reaching a debt-to-GDP ratio by a specified date. A debt target provides a visible goal to anchor medium-term policy requirements and inspire both fiscal prudence and growth-enhancing reforms. It can also act as a simple and transparent tool to communicate the government's fiscal policy messages and commitments to the general public and financial markets. On realistic macro-economic projections, pushing debt below 60% of GDP by 2025 would require the government to increase the headline balance from –2.8% of GDP to 1.3% of GDP by 2020 and 2.7% of GDP by 2025. OECD experience suggests that a headline balance path of this nature would not be particularly exceptional. Denmark, Finland, Korea, New Zealand and Sweden have all maintained substantial headline surpluses, sometimes in excess of 4% of GDP, for sustained periods during the past 10 to 15 years.

The framework will also include a medium-term budget and economic plan. It is proposed that the plan would include the Budget year and at least two further years (Department of Finance, 2011). Consideration should be given to formally maintaining the four year plan horizon that is embedded in the National Recovery Plan as it allows more scope to demonstrate how progress towards ultimate targets will be met. To be an effective part of the framework the plan needs to be both feasible and have strong commitment. This requires that it be based on reasonable economic assumptions and that it takes account of political preferences. The medium-term plan should include a clearly specified medium-term debt target, a path for the headline fiscal deficit and estimates of the amount of discretionary fiscal action that will be required to achieve this. In addition it should include estimates for expenditure and revenue year-by-year and the specific measures that will be undertaken to achieve the targets. The assumptions underpinning the plan should be transparently laid out to give it credibility and also allow effective monitoring by the Fiscal Council, the Parliament and the wider public.

### *Fiscal rules*

Fiscal rules can be used to help enforce the plan and achieve a medium-term fiscal target. Past experience suggests, however, that unduly rigid rules tend to be unworkable and not effectively enforced (Schick, 2010). They also need to be simple enough that they can be easily understood and monitored by the parliament and public, have broad coverage and be operationalised easily. The current government proposal is to introduce a set of three main fiscal rules: a public finances correction rule that specifies the minimum consolidation effort in terms of the primary budget balance that applies when debt exceeds 90% of GDP; a prudent budget rule that specifies the minimum consolidation effort

in terms of the cyclically-adjusted primary balance when the debt is below 90% of GDP but the government has not met a specified medium-term objective; and a sustainable expenditure rule that would require overall current government expenditure to increase in line with the underlying medium-term nominal rate of economic growth once the medium-term objective is met.

Rules specified in terms of cyclically-adjusted balances or equivalently balances measured "over the cycle" are difficult to operationalise and monitor because they depend on forecasting the size of spare capacity in the economy, which cannot be observed and is particularly difficult to estimate for a small open economy such as Ireland's. The Swedish Fiscal Policy Council found it difficult to assess compliance with the government's target of a 1% surplus over the cycle (Calmfors, 2010). Disputes over when the cycle started and finished were among the most contentious aspects of the rule that operated in the United Kingdom until the end of 2008 (OECD, 2009). Reliance on such measures may also induce policy mistakes. With the benefit of hindsight, initial cyclically-adjusted fiscal balance measures appear to have given an overly optimistic view of the Irish fiscal position prior to the crisis, which may have contributed to a sharp rise in expenditure in 2007 before the crisis hit. At the end of 2006, when budget setting for 2007 took place, the Irish government estimated that the cyclically-adjusted balance fiscal balance in 2006 was 2.7% of GDP. The OECD estimate for 2006 was a similar 2.5% of GDP in mid 2007. However, by October 2011 OECD estimates suggest that the cyclically-adjusted balance was only 0.8% of GDP in 2006.

Once a medium-term goal for debt or the fiscal balance is set it is largely a technical matter to determine how much discretionary action is required from year to year to achieve these targets. Such a responsibility should remain with the Minister of Finance. These actions then inform the setting of nominal medium-term expenditure ceilings. These ceilings (or expenditure rules) could serve as an operational commitment to budget prudence by the government. This type of rule has the advantage that breaches are relatively transparent and spending ministers can be held accountable for their actions (Atkinson and van den Noord, 2001; Guichard *et al*. 2007; Price, 2010). Such a system would clearly separate out technical (growth and other assumptions) and ministerial expenditure control responsibilities, and thus help to better inform where corrective action is required if the budget appears to be off track in meeting its medium-term objectives. Like all rules, an expenditure rule will encourage efforts to circumvent it. To partly address this, the rule should have a wide scope, covering total expenditure (Price, 2010). It could also include tax expenditures, although this would complicate the rule as tax expenditures can be difficult to define. At the very least tax expenditures would need to be monitored carefully (Anderson and Minarik, 2006) perhaps via a "pay-as-you-go" rule that requires revenue lost from a tax cut to be made up elsewhere. Ireland has since 2004 set out capital expenditure in a multi-annual framework. To increase transparency consideration should be given to combining the proposed expenditure ceilings on current spending with the existing capital spending limits into an aggregate ceiling.

### *Establishing a Fiscal Council*

As recommended in the previous *OECD Economic Survey of Ireland*, the government set up an independent Fiscal Council in June 2011. The Council comprises 5 independent Councillors appointed by the Minister of Finance (two from Ireland and three international experts) and a permanent secretariat of 4 people. Appointing international fiscal policy

expertise to the Council is welcome as it will help to broaden the range of independent perspectives that the government will have access to in determining policy, this being one of the important potential benefits to be derived from such a body. The Council will report three times in the year, pre- and post- Budget and after the issuance of the Stability Programme in May. Reports will be submitted to parliament and published within 24 hours of them being provided to the Minister of Finance. The Council can play an important role in increasing commitment and improving the operation of the framework. It should monitor compliance with formal rules as well as evaluating whether the government's medium-term target is consistent with prudent fiscal and economic management and whether the government's fiscal policy decisions will achieve these targets. It is important that the Fiscal Council provide normative judgements and recommendations on fiscal policy rather than just advice as there is evidence that this increases the effectiveness of a council (Debrun, Hauner, Kumar, 2009). The Council should also assess the forecasts and assumptions underlying the medium-term plan. International experience shows that over-optimistic macroeconomic forecasts are an important source of deficit bias (Hagemann, 2010).

### *Performance budgeting*

Effective scrutiny of public expenditure requires information not just about programme funding but also about the outputs and outcomes. As part of the fiscal framework reform, the government is progressively moving towards a more performance-oriented budgeting approach. Since 2007, Departments have produced annual output statements, which set out information on expenditure and the services on a programme basis. However, outputs are not always classified in the same way as the budget estimates making it difficult for the parliament to make full use of this information in scrutinising the budget. A further improvement was included in the 2011 Budget which contained output information alongside expenditure allocations for the Departments of Finance and Agriculture, Fisheries and Food. It is intended to roll this out to all departments in the 2012 Budget.

To ensure that the budget process delivers value for money and to facilitate proper monitoring of expenditure allocations, the government should keep improving the output and outcome indicators inserted into the budget estimates. The budget process itself is an opportunity to gather parliamentary and government feedback on how to improve indicators to make them more relevant for assessing how funds should be spent and the provision of such feedback to departments and agencies should be built into the process. A performance-based budget process can also make a strong contribution to increasing public sector efficiency.

## Raising public spending efficiency

Increasing public-sector efficiency is an important tool for reducing the fiscal deficit in an enduring and relatively growth-friendly way. There has been an ongoing programme to increase public sector efficiency in Ireland. An initial vision of a more performance-oriented public service was introduced in the mid 1990s (Strategic Management Initiative) but until recently the effort was mainly focused on putting processes in place rather than improving outputs and outcomes (OECD, 2008). This effort has been given new momentum by the weak fiscal position, with reducing costs by increasing public-sector efficiency being an important plank of the consolidation programme. An expert group reported on ways to

reduce public service staffing and expenditure in 2009 and a new department of Public Expenditure and Reform, comprising divisions formerly in the Department of Finance and the Department of the Taoiseach, has been set up to lead this effort.

Some of the key principles governing the efficiency process are set out in the Public Service Agreement 2011-14 (Croke Park agreement) between the government and the public service unions. Following substantial net pay cuts between 2008 and 2010 (including the imposition of a pension levy deduction from public servant pay), the government has committed to no further pay cuts for existing employees in return for industrial peace and a commitment to measures to deliver efficiency gains including through reorganising the delivery of public services (Box 1.2). An important step in reorganising public services is a comprehensive review of expenditure and it is proposed that this will be repeated every two to three years as part of the new fiscal framework. Expenditure review reports from all Departments were received by the end of September 2011 and will inform the 2012 Budget process.

The Croke Park agreement freezes pay through to 2014, introduces standardised terms and conditions to facilitate movement around the public service, and restricts promotion and recruitment. Reflecting recruitment restrictions, overall public service numbers fell from 319 000 in 2008 to 308 000 in 2010. Further reduction to 295 000 by 2014 (a return to 2005 levels), a reduction of around 3 300 per year, is targeted. In total, measures taken over 2011-14 are expected to reduce the overall public wage bill by EUR 1.2 billion (or 8%). The first official review of the Croke Park Agreement found that public service numbers are falling at a rate faster than required to meet targets, but also that not enough progress is being made in some of the areas designed to deliver efficiency savings, such as consolidating services and sharing information between government entities.

### *Performance indicators*

As acknowledged by the government, moving to best practice in public sector efficiency requires shifting towards a more performance focussed approach (OECD, 2008). Better performance indicators, greater contestability in public services and greater managerial responsibility and discretion over human resources management can achieve a more efficient public sector. Improved indicators are required as ensuring an efficient public service is ultimately dependent on the data available to decision makers. Better indicators also complement the proposed comprehensive assessment of expenditure every two to three years. Indicators on whether current expenditure is achieving the government's goals would bolster the effectiveness of these exercises. As well as assisting efficient budget allocation, performance indicators can also have a useful role in increasing efficiency directly at the output delivery level. Developing robust output and outcome indicators at, for example the individual school (Chapter 3) or police station level, and making these publicly available can spur managers to identify where their organisation differs and how it could be improved (Lundsgaard, 2002).

Comparing the performance indicators used in Ireland to those in Australia, Canada and the United States suggests that Ireland could improve output and outcome indicators by greater use of quantitative indicators and presenting indicators with historical data and a target, so that performance trends can be observed (Boyle, 2009). To maximise the net public efficiency benefits of performance indicators, priority should be put on developing indicators for the largest areas of government expenditure. In particular there should be a focus on health and education, which together account for 70% of public service employment and 75%

### Box 1.2. **Reforming non-commercial state agencies**

At end-April 2010 Ireland had 15 government departments complemented by around 250 national level non-commercial state agencies and around 300 local agencies. The number, role and governance of state agencies is controversial and under significant scrutiny, including in the comprehensive expenditure review. Earlier work in the *Report of the Special Group on Public Service Numbers and Expenditure Programmes* (2009) found widespread duplication of outputs across agencies and departments. There is significant potential to reduce their numbers and increase public sector efficiency through winding some of them up and merging others into government departments or with each other. For example, the Special Group Report recommends that the enterprise support functions that are spread across departments, and across agencies at local and national levels be merged into one single national support agency for indigenous industry with local branches. Mergers of this type offer the chance to reduce duplication, staff numbers and other costs such as accommodation as well as facilitating common measurement of performances and a more consistent range of policy interventions across various industries. Creating larger agencies through mergers is also likely to increase overall scrutiny of public expenditure, as small agencies with limited budgets tend to receive less attention. However, it is important to ensure the legislative process for rationalising agencies does not drag out as it has in the past, as this creates a high level of uncertainty with negative effects on productivity.

Agencies in Ireland typically have a high degree of policy autonomy but little management autonomy in both the financial and human resources areas and large participatory governing boards are widely used (McGauran, 2005, OECD, 2008). A number of weaknesses exist in governance arrangements. Departments have insufficient capacity to effectively monitor their agencies. There is also sometimes a mismatch between the type of governance structure and agency functions. For example, many agencies are working in clearly defined areas with well-delineated products, and have relatively easily identifiable performance objectives and measurement criteria. These service-delivery agencies need managerial autonomy, but little policy independence so a large participatory board comprising representatives from many different stakeholder groups is unnecessary and may be counter-productive. A "departmental agency" with direct accountability of management for specified outputs to a policy-setting line department may be more appropriate in these cases (OECD, 2008). Boards or governing authorities are also excessively large; they average 12 persons while private-sector best practice suggests 6 to 9 would be sufficient (MacCarthaigh, 2010). The unnecessary use of participatory boards also increases the risk of interest group capture (McGauran, 2005). The large number of agencies and lack of performance indicators means it is practically impossible for parliament to assess their expenditure effectiveness and efficiency. In line with overall efforts to improve public sector efficiency, an important part of reforming agencies should be to increase their focus on performance by giving them greater management autonomy but less policy autonomy with policy goals being set more centrally (OECD, 2008). This can help to reduce mission creep as well as increase accountability to the government and maximise the potential operational efficiencies of having independent agencies. The number and size of boards should be reduced and governance structures better aligned with agency functions. Clear criteria for setting up agencies should be developed and all agencies should be subject to periodic review of their function and even whether the function for which they were set up is still needed.

of the Exchequer wage bill (Boyle, 2010). This would help to reduce the risk that indicators become a costly bureaucratic exercise with no tangible benefits. It is also important that the indicators facilitate cross-department, agency and programme comparisons, which requires ensuring they are developed and presented in a consistent way.

Both output and outcome indicators should be provided. Ultimately the government is interested in achieving outcomes (for example, fewer fatalities per kilometre travelled), while effort also needs to be made to demonstrate the links from government outputs (police patrols) to outcomes. Indicators should therefore be accompanied by an evidence-based performance narrative to give the user a better understanding of how outputs have contributed to better outcomes. The need to provide such arguments can be used to motivate desirable practices to establish evidence of causal links, such as information from randomised pilot experiments, which will in turn give decision makers more confidence in the robustness and meaningfulness of indicators. A performance narrative may also help to circumvent the problem that performance indicators can incentivise departments and agencies to concentrate solely on meeting a given output target even if it has no impact on a government goal (lower crime rates).

### *Contestability*

As part of the comprehensive expenditure review, the government is requiring departments to reconsider how services are delivered, including whether some services can be delivered more efficiently by the private sector. Making service provision to or on behalf of government more contestable is an important potential avenue for increasing value for money. The private sector can provide cost benchmarks for the public sector, incentivise efficiency improvements and save money. Competition and greater incentives to operate efficiently can be introduced into provision of public services through a variety of institutional arrangements, including benchmarking across existing public agencies, using indicators as described above or through competitive tendering and contracting out as well as providing more user choice.

There is no "one-size-fits-all" approach and policies in this area need to take account of the characteristics of the service provided, market structure (*e.g.* natural monopoly), the scope for technological improvements, how well consumers are informed and transaction costs (Bel, Fageda and Warner, 2010). Benchmarking and performance contracts are a viable option for defence, security and core public administration functions, where wider competition with the private sector is not feasible. However, competitive tendering and contracting out can be used for support functions such as cleaning, wage administration and building maintenance. Empirical evidence suggests that this can generate savings in the order of 10-30% in these areas (Lundsgaard, 2002). Competitive tendering should also be considered for helping to deliver new shared services required under the Croke Park agreement, as has already been the case for the new human resource shared services centre for the civil service that will undertake the transactional elements of human resources processes for the civil service. It can also potentially play an important role in delivering new ICT and government solutions required by the agreement and provide an avenue for the government to make better use of the large private sector ICT and online solutions expertise that already exists in Ireland.

Greater user choice can also play a role in increasing competition and sharpening incentives to operate efficiently. The reorganisation of public employment services (PES) in Ireland provides an opportunity to contract out to a range of training providers and

introduce greater choice into training for the unemployed (Chapter 3). This policy lowered costs and improved job seekers' and employers' satisfaction relative to provision by the PES in Australia (Elliot *et al*., 2005). However, there was substantial variance in outcomes across providers, as often appears to be the case when public services are provided by the private sector. This underlines the importance of first ensuring that government departments have the necessary expertise to effectively contract out. Consideration also needs to be given to ensuring that equity goals are being met in a system of greater user choice and to avoid problems such as "cream skimming" where suppliers will select "easy" customers. Without appropriate safe-guards a user choice system can tend to favour the higher–income and better-informed individuals (Besley and Ghatak, 2003). Funding may need to be adjusted depending on user characteristics and where service assessment requires professional oversight choice could be restricted to a limited range of government approved suppliers (Lundsgaard, 2002).

### *Human resource management*

To achieve greater efficiency gains Ireland also needs to continue improving human resource management in the public service. Government agencies in particular are frustrated by the lack of autonomy over human resources (McGauran *et al.,* 2005). In the short run, the urgent requirement to consolidate the fiscal position in the current institutional framework (mostly permanent contracts, high redundancy costs, *de-facto* lifetime employment and the Croke Park agreement to impose no compulsory redundancies) requires a centralised approach to staff numbers and pay rates and this has saved money. However, this type of approach can have detrimental effects on the quality of the public service and therefore efficiency in the medium term; hiring bans and centralised setting of staff numbers remove managerial discretion over how to best achieve outcome objectives and hiring moratoriums may cause a deterioration in staff quality if better qualified staff leave.

The government's goal of a more output focused approach to the public service requires greater flexibility in human resource management. There is a tension between centralised human resources control and achieving a real performance-based system. To achieve objectives efficiently, public sector managers need flexibility and one of the key variables is human resources. Consideration should be given to eventually handing responsibility for managing staff costs to senior management of departments and agencies within a centrally-set wage bill envelope to give more scope for agencies and departments to choose the most efficient staff mix to meet their output and outcome objectives. This would also be consistent with the overall fiscal framework of expenditure limits. There is a risk that such a system could generate expenditure overruns and undesirable increases in overall numbers than are difficult to reverse. Minimising these problems could be assisted by ensuring that senior managers are incentivised to respect the wage bill ceiling, and by negotiating a less costly redundancy regime from the public service with the public service unions. The latter is challenging but strong employment protection for permanent contracts increases the incentive for a cash-strapped government to continue severely restricting hiring on permanent contracts.

The *OECD Public Management Review (2008)* found that the Ireland was not achieving the level of staff mobility within the public service that should be afforded by its career based public service, which aims to maintain a group of generalists. In addition the *Review* found that Ireland's career-based system suffered from a restricted scope for recruiting in new talent and a lack of specialisation. The standardisation of conditions across the public

service required by the Croke Park agreement should assist in increasing mobility but opt-outs should be allowed where specific features of a post demand it. The redeployment of staff to fill gaps under the efficiency programme is a chance to streamline transfer procedures. Although there is open competition for positions at the starting level, external entry to the service at higher levels is more restricted. The Croke Park agreement calls for greater use of open recruitment at all levels and there has been a partial opening to recruitment from the private sector at senior levels although this appears to date to have resulted in very little actual recruitment from the private sector. Demands on government are increasingly complex. To have greater access to specialised skills and facilitate the movement of labour between the private and public sectors, the government should continue to expand the range of posts open to private sector applicants. This is especially important in a small economy like Ireland's where the pool of suitable candidates for technically demanding posts is limited.

### Box 1.3. **Summary of recommendations for restoring public debt sustainability and lifting public sector efficiency**

- Implement the EU-IMF financial assistance programme to reduce the deficit to below 3% of GDP by 2015. Put money saved from interest rate reductions on official financial assistance towards faster consolidation. Providing growth allows, to gain greater credibility in financial markets and reduce the future debt repayment burden reduce the deficit faster than required by the programme. Focus the consolidation effort more on reducing spending. Broaden the tax base.
- Proceed with the implementation of a new fiscal framework. As part of the framework produce a multi-year budget. Focus on a debt-to-GDP target to be achieved by a specified date to anchor the fiscal framework. Use a ceiling for nominal expenditure broadly defined in each year of the medium-term framework to help achieve the debt target. Establish a central role for the Fiscal Council in the budget framework and continue to appoint international fiscal policy expertise to it.
- To improve public sector efficiency and expenditure allocation, introduce better performance indicators with historical data so that performance trends can be seen. Concentrate indicator development on large expenditure items, particularly education and health. Require a performance narrative to accompany indicators linking outputs with the government's desired outcomes.
- To get better value for money, make service provision to or on behalf of government more contestable through benchmarking, yardstick competition, contracting out, particularly for new shared services, as well as introducing greater user choice.
- To lift efficiency, reduce duplication and increase accountability of policy advisors to the government, reduce the number of agencies through mergers with government departments or other agencies and introduce sunset clauses that require a regular review of the need for an agency.
- To move towards a more performance based system of public management consider giving senior agency and department management responsibility for managing their labour costs within a centrally set wage envelope. This would require developing incentives for managers to comply with the envelope and moving to a less costly redundancy regime for the public sector. To give the government greater access to specialised skills and facilitate the movement of employees between the private and public sectors open up recruitment to the public service at all levels to private sector candidates.

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ANNEX 1.A1

# *Simulations of medium-term debt reduction plans*

International experience shows that GDP growth tends to make a large contribution to most sovereign debt reductions and Ireland's fiscal future is very much tied to the performance of the economy. This annex examines a range of future debt scenarios for Ireland based on varying consolidation paths, which are driven by changes in real growth. The changes in growth are calibrated using recent developments in the Irish and international economies such as the sharp rise in unemployment, the increase in international risk aversion and the downsizing of the construction sector.

The debt simulations (except the pessimistic scenario described below) are divided into two main phases. In the first phase from 2011 to 2015, the headline fiscal balance follows the government's targets as set out in the Stability Programme Update 2011 with a reduction in the fiscal deficit to 2.8% of GDP in 2015. This also complies with the EU-IMF programme targets which are slightly less stringent. In this phase all assumptions, including GDP growth and interest rates are identical across scenarios. In the second phase, from 2016 to 2025, changes in GDP growth affect the headline fiscal balance and therefore the debt trajectory.

In the baseline scenario, from 2011 to 2012, real GDP growth follows the economic projections in table 1 of this report. From 2014 to 2025, to increase conservatism of the baseline scenario, a modified OECD Medium-Term Baseline No. 89 projection for GDP growth less 0.5% *per annum* is used in Table 1.A1.1. Discretionary fiscal policy from 2016 to 2025 is set in order to reduce debt to just below 60% of GDP by 2025 (Figure 1.A1.1).

Table 1.A1.1. **Debt trajectory scenario assumptions**

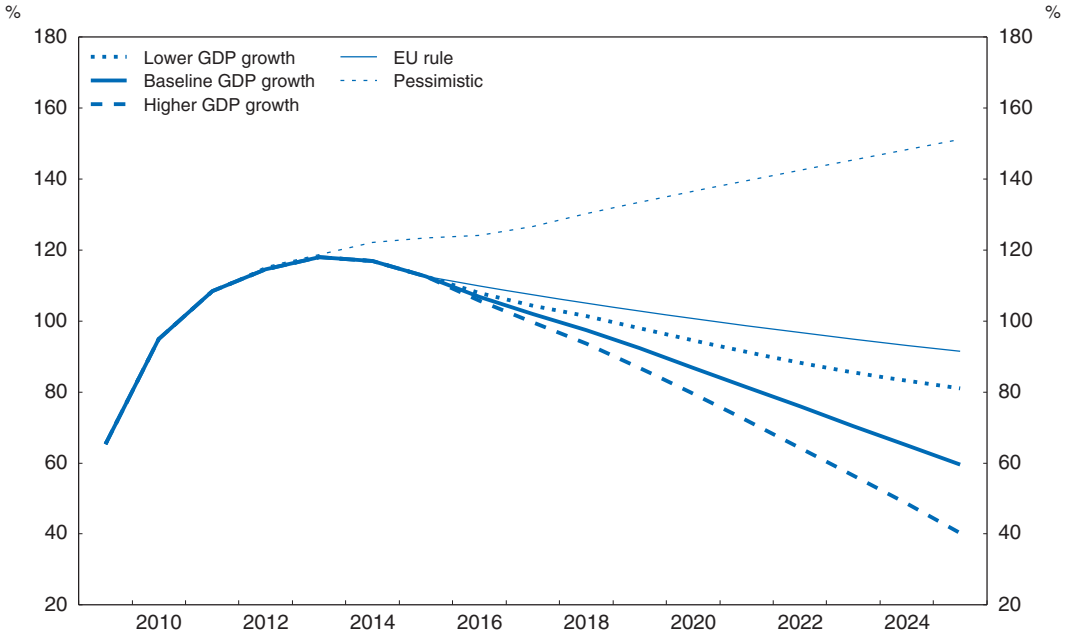
| | Trend real GDP[1, 2] | Trend GDP deflator[1, 2] | Implicit interest rate[2] | 10 year bond spread versus Germany[2, 3] | Underlying primary balance | | | Headline fiscal balance | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 2015 | 2020 | 2025 | 2015 | 2020 | 2025 |
| Baseline | 2.8 | 2.0 | 5.2 | 125 | 3.0 | 5.0 | 5.0 | –2.8 | 1.3 | 2.7 |
| High growth | 3.6 | 2.0 | 5.2 | 125 | 3.0 | 6.2 | 7.4 | –2.8 | 2.8 | 5.8 |
| Low growth | 2.0 | 2.0 | 5.2 | 125 | 3.0 | 3.7 | 2.4 | –2.8 | –0.2 | –0.8 |
| Pessimistic | 1.0 | 2.0 | 6.8 | 290 | –0.8 | 0.7 | 3.6 | –6.9 | –6.9 | –6.9 |

1. Per cent growth *per annum*.
2. Average 2016-25.
3. Basis points.

*Source:* Secretariat calculations.

Figure 1.A1.1. **Gross general government liabilities**[1]

As a percentage of GDP




*Note:* Assumptions used in these scenarios are contained in Table 1.A1.1.

1. Maastricht Treaty definition.

*Source:* *OECD Economic Outlook Database* and Secretariat calculations.

StatLink http://dx.doi.org/10.1787/888932527167

The high and low growth scenarios explore how a shift in growth could affect the debt trajectory relative to the baseline. Even relatively modest changes in growth can have notable effects on debt. This is because a shift in the real growth rate permanently changes the level of GDP, which allows a permanent change in the primary fiscal balance and the debt trajectory. Medium-term growth rates are in turn dependent on potential labour supply, the capital stock and productivity. The shift growth is calibrated from simulations in Annex 2, which show that a combination of modestly higher/lower net inward migration, labour force participation, labour productivity and capital stock due to small differences in unemployment and interest rates together with *inter alia* the productivity change from the construction sector changing in size could see trend real GDP growth average 0.8% *per annum* higher/lower from 2016 to 2025 (Table 1.A1.2).

The gap in the debt paths between the baseline and high and low growth scenarios illustrates the fiscal space created by growth by showing what the government can achieve in terms of debt reduction relative to the baseline without altering welfare in terms of the government spending level in real terms. In particular, real spending is held at the baseline level from 2016 through to 2025 and the full change in revenue from a shift in real growth of 0.8% *per annum* is added to the underlying primary balance. In practice the government may end up cutting real spending below the baseline level in order to offset lower growth or vice versa. At a minimum, the choice of debt target and speed of approach to this target must comply with Ireland's EU obligation to reduce debt each year by 1/20 of the difference between current debt and the 60% of GDP Maastricht Treaty threshold.

Table 1.A1.2. **Impact of structural developments on potential growth**

| | Simulation | Change in growth rate *per annum* 2016-25 |
|---|---|---|
| Labour force: Migration | Unemployment gap between Ireland and United Kingdom shifts 2 percentage points. | 0.3 |
| Labour force: Labour force participation rate | Unemployment rate shifts 2 percentage points and female 45-59 participation rates are 10% different relative to the male cohort participation rate by 2025. | 0.1 |
| Capital stock | Capital stock changes by 5% by 2025 due to a 0.5 percentage point change in corporate interest rates. | 0.05 |
| Labour efficiency | Growth changes by 0.5 percentage points *per annum* due to *inter alia* a change in the size of the construction sector. | 0.35 |
| Total | | 0.8 |

*Source:* Secretariat calculations.

The above scenarios show a declining path of debt and a return to fiscal sustainability but financial markets are pricing in a high probability of default by Ireland. Apart from contagion effects from fears of default by Greece and EU-level policy uncertainty, this may reflect a view that debt will continue to rise in Ireland and therefore default will become increasingly likely. To illustrate this, a pessimistic scenario is shown where real growth averages only 1% *per annum* from 2011 through to 2025, the implicit interest rate on government debt rises to 8% by 2025, and the government does not meet its programme targets and the headline deficit remains around 7% of GDP from 2012 to 2025. This would cause debt to rise to over 150% of GDP by 2025.

The low growth scenario suggests that even with lower trend annual nominal GDP growth of around 4% (2% real growth) and no substantial further consolidation beyond that required to meet the government's 2015 deficit target of below 3% of GDP, sovereign debt would still start to fall noticeably. Continually rising debt, and therefore likely eventual default, would not only require growth to be very weak, and interest rates high, but also significant fiscal slippage. This is because even under the pessimistic scenario growth and interest rate assumptions, debt would stablise around 110% of GDP, provided the government met its fiscal targets to 2015 and Maastricht treaty obligations to ensure the deficit was below 3% of GDP from 2016 onwards.

ANNEX 1.A2

# *Calibrating a change in potential growth*

Growth in the medium-run is determined by the potentially available amount of capital and labour and how productively these factors of production are combined to produce goods and services:

$$GDPV_{trend} = (Prod * Pop * LFPR * (1 - NAIRU) * HRS)^{1-\alpha} K^{\alpha}$$

where $GDPV_{\text{trend}}$ is the trend or medium term level of real GDP, *Prod* is labour efficiency, *Pop* is the working age population, *LFPR* is the labour force participation rate, *NAIRU* is the non-accelerating structural rate of unemployment, *HRS* is hours worked and *K* represents non-housing capital services and $\alpha$ is capital's share of total income. Total factor productivity (TFP) is equal to $Prod^{1-\alpha}$. This section simulates a change in potential growth calibrated on recent economic developments in Ireland and abroad.

### *Potential labour supply*

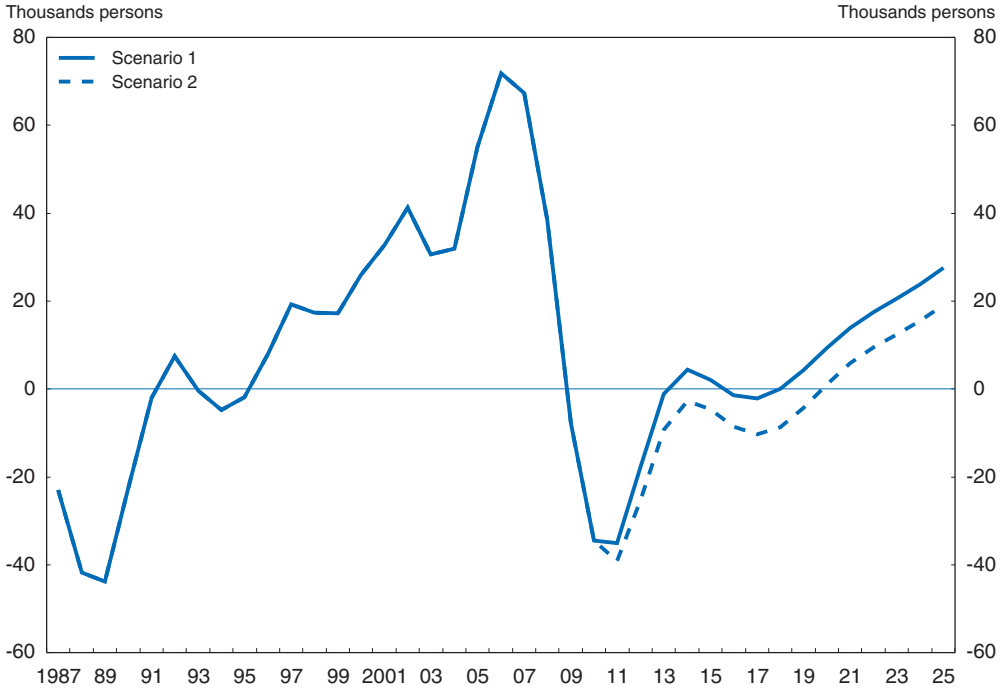
#### *Migration*

Ireland's working age population is notable for two features, it is relatively young by OECD standards and large migration flows play an important role in determining the size and nature of the working age population. Traditionally the literature has found that the best predictor of Irish net migration is differences in unemployment rates between Ireland and the United Kingdom (Bergin *et al*., 2010). Outside this traditional influence was the large recent inflow of migrants from Central and Eastern Europe as result of admitting ten new member states to the European Union in 2004 from that region. Examining the available migration data suggests that this can be treated as a one-off event. Estimation of a simple equation with a dummy variable to capture the migration from Central and Eastern Europe confirms that the unemployment gap remains a valid explanatory variable:

$$M_t = 49.7 - 33.1 * \frac{UNR_{IRL_t}}{UNR_{GBR_t}} + 0.84 * M_{T-1} - 0.60 * M_{t-2} + 17.9 * EU10$$

where $M_t$ is net migration in time t, $UNR_{IRL}$ and $UNR_{GBR}$ are the unemployment rates in Ireland and the United Kingdom respectively and *EU10* is a dummy variable for the period 2004 to 2008. Simulations for the period 2011-25 using this equation suggest that net migration will continue to exhibit a net outward migration pattern through until 2013 before stabilising (Figure 1.A2.1). If the unemployment rate in Ireland were to be 1 percentage point higher from 2011 through to 2025 all else equal then net migration would total –49 000 for the period 2011 to 2025 compared with net 62 000 in the first scenario.

Figure 1.A2.1. **Net migration**[1]




1. Scenario 1: unemployment gap between Ireland and the United Kingdom is taken from the OECD Medium Term Baseline 89; Scenario 2: the unemployment rate gap is 1 percentage higher than in the baseline from 2011 to 2025.

*Source:* Central Statistics Office Ireland; *OECD Economic Outlook Database* and Secretariat calculations.

StatLink http://dx.doi.org/10.1787/888932527186

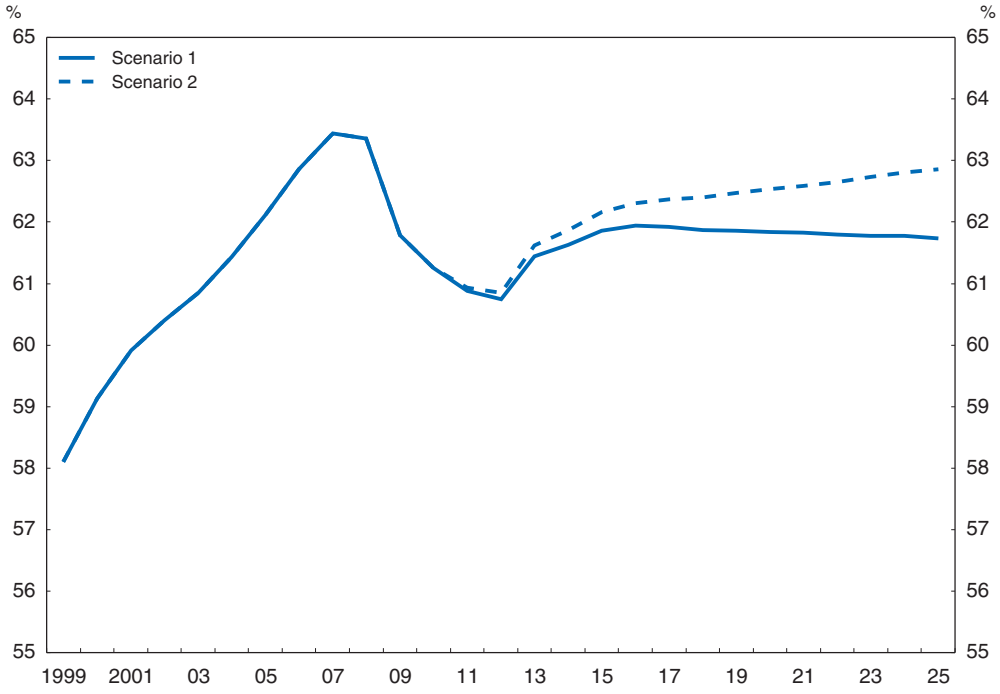
### *Labour force participation rates*

Falls in the working age population due to net outwards migration have been compounded by a decline in the labor force participation rate (Figure 1.A2.2).* Simple equations for participation rates by age and gender cohort using time trends and the unemployment rate appear to explain participation rates reasonably well in Ireland. Notable exceptions are females and males aged over 65 where the encouragement effect appears to only play a role during periods of particularly tight labour market conditions. These individual cohort participation rates are weighted by the proportion of the working age population in each group to construct an overall participation rate for the population aged 15 and over.

The pattern for the overall participation rate is quite sensitive to the future trend in female participation rates. Ireland has a comparatively low rate of female participation and female participation rates for the cohorts aged 25-59 have exhibited a very strong and consistent upward time trend since 1996. If these trends continued for female cohorts aged 45-59, female participation rates would exceed male ones in the same age cohorts by 2025 so there will be some moderation in trends for these female groups. Simulations using these equations for the period 2011-25 but assuming that the trend for the participation rates of female cohorts aged 45-59 moderates and their rates converge to 85% of levels of

* The participation rate is measured as the proportion of the population 15 and over in the labour force.

Figure 1.A2.2. **Labour participation rate scenarios**[1]




1. Scenarios 1 and 2: Participation rates of females aged 45-59 converge to 85% and 95% respectively of the level of their male counterpart cohorts by 2025.

*Source:* Central Statistics Office Ireland; *OECD Economic Outlook Database* and OECD calculations.

StatLink http://dx.doi.org/10.1787/888932527205

male cohorts of the same age by 2025, shows that the overall participation rate would decline slightly from 2015 to 2025 (Figure 1.A2.2). Altering the convergence rate for these female groups so that participation rates were 95% of male counterparts by 2025 would see a steady rise in the participation rate from 2015 through to 2025.

### *The cost of capital and the capital stock*

An examination of previous banking crisis suggests that weak capital accumulation due to a rise in capital costs is a large contributor to the decline in potential output in the wake of a banking crisis (Haugh *et al.*, 2009). Risk aversion has increased in the wake of the 2008-09 global financial crisis and investors have become far more discerning about differentiating between debtors. The future cost of borrowing for the private sector could be higher than prior to the crisis over coming years. As a global benchmark, BBB real corporate bond yields in the United States fell from an average of 4.5% over the 1991-2001 business cycle to only 3% during the credit boom from 2003-07 but have since risen again. Due to a lack of data changes in the yield on this benchmark series are assumed to be partly reflected in the future borrowing costs of private sector firms based in Ireland. The US corporate bond market is a benchmark for global trends generally and there is also a more direct connection to Irish borrowing costs via the large stock of FDI owned by US based investors. The effect of changes in the cost of capital in the wake of the crisis on the

capital stock and potential output is calculated using the production function approach set out in Cournède (2010) where the elasticity of capital with respect to its cost is given by:

$$\frac{\frac{\Delta K}{K}}{\frac{\Delta c}{c}} = -\frac{1}{1-\alpha}$$

where *K* is the capital stock, *c* is the cost of capital and $\alpha$ is capital's share of income and the change in equilibrium output is given by:

$$\frac{Y_{after}}{Y_{before}} = \left(\frac{\delta + \theta_{after}}{\delta + \theta_{before}}\right)\left(\frac{\delta + \theta_{after}}{\delta + \theta_{before}}\right)^{\frac{\alpha}{1-\alpha}}$$

where *Y* is the level of potential output and $c = \delta + \theta$ where $\delta$ and $\theta$ stand for the scrapping rate and discount (interest rate) respectively. Assuming a scrapping rate of 10%, a difference in the interest rate of 0.5 percentage points would see the equilibrium level of the capital stock change by 5.7%.

### *Total Factor Productivity*

Total Factor Productivity (TFP) is calculated as a residual in the production function approach and this means it captures the influence of many factors including the innovative progress of a country. By definition, it will tend to be where atypical or one-off and/or particularly large shocks to the economy will show up. This makes it difficult to determine how TFP will behave in the longer run in Ireland following the large 2008-10 recession. Nevertheless, the construction bubble distorted productivity levels in Ireland during the boom period. As a guide to the proximate effect of the housing boom on TFP, a simulation was conducted assuming that housing construction had grown at a far slower rate in the 2003-07 period so that housing construction's share of GDP fell slowly to the average level from 1990-95 by the end of 2007 when the recession hit. All else equal this would have reduced construction employment and GDP. However, as the level of productivity in construction is lower that the economy overall, this would have increased average labour efficiency by 0.25% and TFP growth by 0.4% *per annum* during this period.

*Chapter 2*

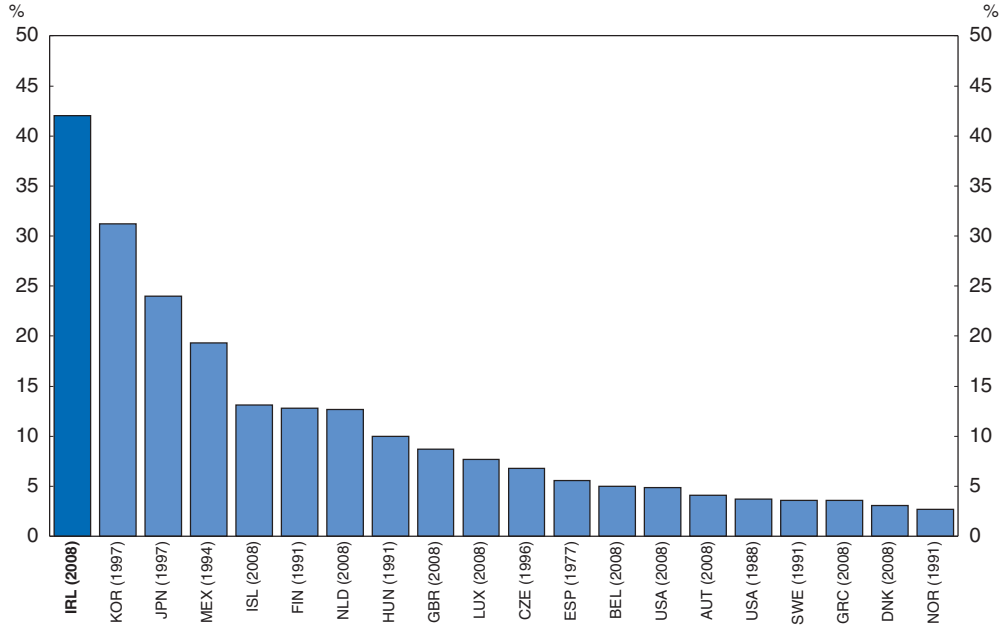
# Overcoming the banking crisis

*Ireland is recovering from an extremely large banking crisis born of over-exuberant property lending. The government has taken a wide range of measures to tackle the crisis over the past 3 years. Larger bad property loans have been transferred to a government controlled "bad bank", NAMA, and the associated heavy losses fully recognised by the banks. NAMA needs to focus on maximising tax payer returns from disposing of this asset portfolio. The banking system was recapitalised in mid 2011 following stringent bank "stress tests", which proved to be a crucial turning point in the crisis by helping to draw a line under losses. Restructuring of the domestic banking system around two core pillar banks is underway but the domestic banking system is still too large. Selling down the banks' large portfolio of foreign assets will help to downsize the banks. It will assist in reducing reliance on eurosystem liquidity while minimising the squeeze on domestic credit. As confidence in the financial system is regained, the authorities should further restrict the government guarantee of bank liabilities. Revamped bank regulation and supervision should utilise a wider set of indicators and rules beyond standard capital ratios and pay greater attention to macro-financial linkages.*

Ireland is recovering from one of the largest banking crises ever to hit a developed economy (Figure 2.1). The banking system played a leading role in the accumulation of macroeconomic imbalances in the past decade, with rapid bank credit expansion contributing to an ebullient housing sector and strong increase in domestic demand. The unprecedented expansion of bank assets, in the context of lax prudential supervision and easy access to foreign wholesale funding, led the banking system to grow to several times the size of the Irish economy. When housing and financial markets collapsed in 2007, the Irish economy found itself exposed to extraordinarily large bank losses. This triggered a crisis of confidence and a loss of access to private market funding. Faced with an illiquid and insolvent banking sector, the government has implemented a series of measures over the past three years. Having achieved some progress to recapitalise the banks with public funds and deleveraging their balance sheets, the government now seeks to restructure the sector with the goal of bringing down its size and refocusing its operations on the domestic recovery. Although still highly reliant on central bank funding, these efforts should allow a gradual resumption of market access. This chapter discusses the evolution of the crisis,

Figure 2.1. **Direct fiscal costs of banking crisis**[1]

As a percentage of GDP




1. Gross value. Dates refer to year in which the banking crisis started. Gross fiscal costs excluding recovery proceeds computed over the first five years following the start of the crisis.

*Source:* Laeven and Valencia (2008, 2010) and OECD (2011).

StatLink http://dx.doi.org/10.1787/888932527224

assesses the policy failures that led to the current crisis and finally recommends further measures to restore the sector to health.

## Ireland's banking crisis

The banking crisis had its roots in a classical over-extension of standard loans. With the adoption of the euro and increased financial integration to global markets, Irish banks obtained access to greater wholesale funding. In an environment of lax prudential supervision, fierce competition for market share emerged amongst Irish banks as well as with local affiliates of UK based banks, such as Ulster Bank. In 2004, with 15% of residential mortgages, Ulster Bank became a prominent lender in this market (Nyberg, 2011) (Box 2.1). Banks allowed their credit standards to deteriorate and expanded their loan portfolio at an unprecedented rate. This fuelled a housing market bubble, with a feedback effect of increasing property prices providing collateral for more loans. High profits generated by this line of business for banks led to further expansion of the banking system. Rapid expansion of credit left the domestic banks highly exposed to a sharp turn-around in property prices, which began in early 2007 and resulted in massive losses at all three major domestic banks. The property-related losses were compounded by a general change in risk aversion in international financial markets as well as towards the Irish banking system, which saw wholesale funding flows dry up.

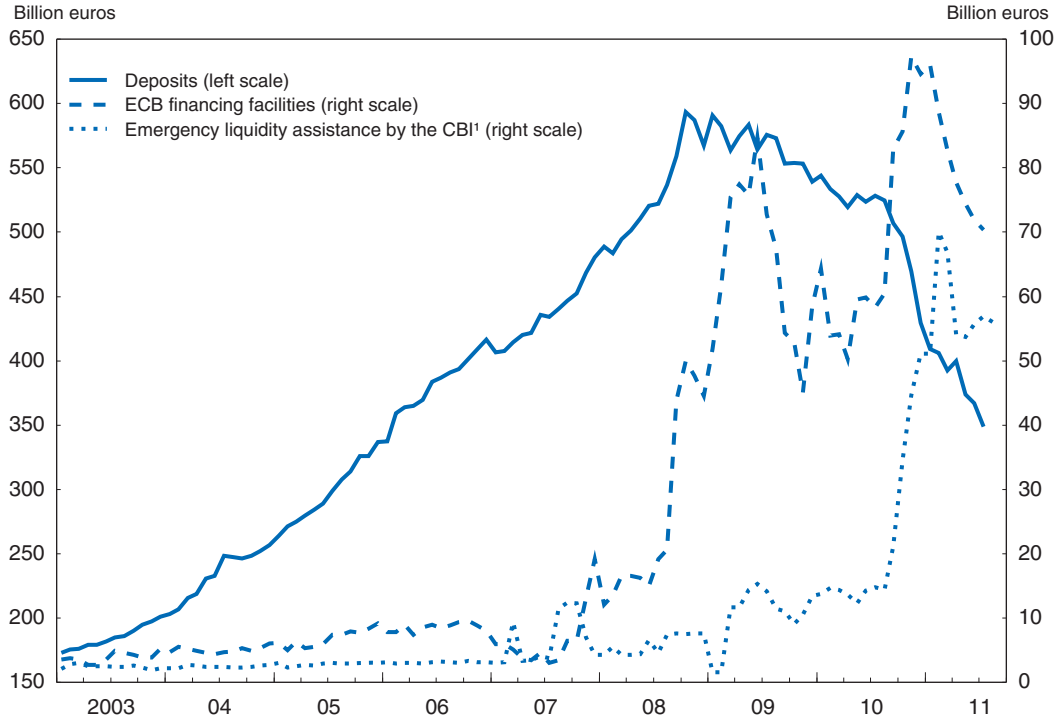
### Box 2.1. **The effects of the crisis on the financial system and financial supervision**

The Irish financial system is made up of both domestic and IFSC (International Financial Services Centre) banks. The IFSC banks have a completely different business model and essentially do offshore business (OECD, 2009). Prior to the crisis, there were three major domestic banking institutions, Bank of Ireland (BoI), Anglo Irish Bank (Anglo) and Allied Irish Bank (AIB) and three minor players, Education Building Society (EBS), Irish Nationwide Building Society (INBS) and Irish Life and Permanent (ILP). They also faced competition from local affiliates of foreign banks, most prominently Ulster Bank. With the crisis, the six main banks have received extensive government support, ending up with total or majority state ownership. Given the extent of their losses, Anglo and INBS have been merged and will eventually be wound up. In the restructuring of the banking system, the government plans to have two universal banks as its core pillars (BoI and AIB-EBS) as well as a restructured ILP.

In 2003, the Central Bank and the Financial Services Authority of Ireland (CBFSAI) were separated, with the financial regulation duties allocated to the Financial Services Authority (FSA). There was a lack of communication and co-ordination between the FSA and the Central Bank, which led to insufficient monitoring of macro-financial linkages. The style of supervision was non-intrusive and the lack of proper enforcement mechanisms in the face of the building up of risks and regulatory forbearance aggravated the crisis. After the crisis, the financial supervision authorities were brought back into the Central Bank of Ireland (CBI) under the leadership of the Governor. In addition, both the structure and the style of supervision have been modified to address the identified weaknesses (Honohan, 2010; Nyberg, 2011; CBI, 2011d).

In response to the crisis, the Irish government took extensive policy actions to stabilize the banking system. Insufficient information initially led the government to interpret the crisis as a problem of liquidity, rather than solvency. The authorities thus issued an extensive guarantee of bank liabilities under the now expired Credit Institutions Financial Support Scheme (CIFS) of EUR 375 billion (240% of GDP) , which was more comprehensive than the approaches adopted in many other countries (Schich, 2009). The guarantee covered all deposits (including corporate and interbank), bonds, senior debt and certain subordinated debt. The authorities recapitalised AIB and BoI and took control of Anglo in January 2009. They also established a state-owned bank restructuring agency, the National Asset Management Agency (NAMA), to take over the property development loans of banks. However, these actions were not enough to restore confidence, which deteriorated once again following the disclosure of larger-than-anticipated financial losses. The lack of access to funding markets and the rapid withdrawal of deposits made the Irish banking system dependent on European Central Bank (ECB) financing facilities and on Central Bank of Ireland Emergency Liquidity Assistance (Figure 2.2).

Figure 2.2. **Dependence on Eurosystem**




1. Emergency liquidity assistance by the Central Bank of Ireland is an approximate measure proxied by its "other assets" series.

*Source:* Central Bank of Ireland (CBI).

StatLink http://dx.doi.org/10.1787/888932527243

By mid-2010, it had become clear that Ireland's banking system was suffering from an insolvency crisis that these central bank facilities were not designed for, and that further large capital injections would be required. A lack of market confidence that the government could fund the growing costs of the banking crisis pushed government

borrowing costs sharply higher, effectively prohibiting a domestically-financed solution. This prompted the EU-IMF programme, with financial assistance of EUR 85 billion, of which EUR 35 billion for the banking system (EUR 10 billion for immediate recapitalisation and EUR 25 billion to be provided on a contingency basis). The banks were required to raise a total of EUR 24 billion in capital following stress tests and to undertake capital and liquidity assessments by the CBI as a condition of this programme. With hindsight, it appears that the initial policy response misjudged the nature and scale of the problem confronted by the banking system, leading the government to take steps that raised the fiscal cost of the crisis, resulting in the sovereign losing access to financial markets. At the same time, global financial market tensions had reached fever pitch during this period and it is difficult to judge what would have happened had the government not extended its guarantees. In analysing these policies, it is useful to think of three phases in dealing with a systemic financial crisis: initial containment; resolution and deleveraging; and management of impaired assets.

### *Initial containment: The government guarantee in international comparison*

In the environment of extreme risk aversion that prevailed globally in the latter half of 2008 banks in Ireland, as elsewhere, experienced significant problems in raising and rolling over funding. When Anglo was unable to roll-over its foreign borrowings and ran out of collateral to refinance at the ECB, the government issued an extensive guarantee before any international co-operation effort, preceding all other guarantees in Europe, and before suggestive guidelines were announced by the ECB. In October 2008, the ECB recommended that government guarantees on bank debt should aim to address funding problems of liquidity-constrained, but solvent banks. It recommended, however, that guarantees on interbank deposits should not be provided and gave guidelines for the pricing of debt guarantees depending on their maturity, using CDS and credit ratings. The Irish guarantee, as in many countries, was much more extensive than the recommendations implied.

Generally, the benefit of a guarantee is to stop the loss of confidence in the financial system and buy breathing space to resolve underlying problems. Since deposits and bank bonds made up a significant proportion of total funding in Ireland, guaranteeing them did succeed in bringing some calm to the markets. However, extensive guarantees have their dangers. They bail out investors who should have done a better job at managing risks and at disciplining financial institutions. They introduce potential distortions to competition, create contingent fiscal liabilities that can lead to widening of sovereign bond spreads and transform banking sector risk into sovereign risk. They also cause moral hazard, so should be accompanied both by a credible exit strategy and by measures to avoid the perception that such extensive guarantees will be available in the future.

The Irish decision to extend a comprehensive guarantee of bank liabilities had benefits and costs. An argument favouring extensive guarantees of all institutions, solvent and insolvent, is the need to prevent a massive run from anxious depositors and to avoid the loss of interbank funding (Baer and Klingebiel, 1995). This was the case in Ireland where the blanket guarantee was extended to all the main financial institutions at once. Given the suddenness of the crisis and the unpreparedness of the authorities, it was almost impossible to distinguish viable and non-viable banks, hence unlimited deposit guarantee helped preserve the payment system and create the breathing space necessary to plan a restructuring strategy (Lindgren *et al.,* 1999). However, this breathing space was not utilized efficiently and the benefits of confidence were not fully captured due to the

slow progress on bank restructuring and the uncertainty regarding the total cost of the crisis. Crucially, as elsewhere, the guarantee was not accompanied by a resolution mechanism to deal with the situation where an initial liquidity problem turned out to be one of solvency. In an empirical study of 40 crises, Honohan and Klingebiel (2000) show that, when open-ended liquidity support and blanket deposit guarantees are used, fiscal costs are higher and economic recovery is not faster. Ongoing liquidity support may actually lead to a slower recovery and larger output losses (Bordo *et al.*, 2001) and to date the crisis in Ireland has been drawn out and the fiscal cost high (Box 2.2).

### Box 2.2. **A tale of two banking crises: Ireland and Iceland**

Ireland and Iceland both experienced large credit booms that financed speculative asset purchases that eventually resulted in a severe financial crisis, but the fiscal consequences have been very different. In Iceland, the banking system at 11 times GDP was far larger than the domestic banking system in Ireland at 3.6 times GDP. Despite this, as of early 2011, the direct fiscal cost of the financial crisis in Ireland was 42% of GDP, around double what Iceland's crisis cost in fiscal terms (OECD, 2011). In addition, Ireland has seen a larger increase in public debt. Gross debt is estimated to have increased by 90% of GDP in Ireland over 2007-11 compared with 70% of GDP in Iceland. Net debt increased by 70% of GDP in Ireland over the same period, compared with 45% of GDP in Iceland.

These contrasting results substantially reflect very different initial policy choices, sharply highlighting how crucial initial decisions in dealing with a crisis are. In Iceland, the government suspended operations at the failing banks and created new banks by transferring domestic deposits and assets booked through domestic branches from the old banks. Shareholders of the old banks were wiped out and creditors suffered large losses. By contrast, Ireland, guaranteed most of the liabilities of its private banks and the resulting support to the banking system contributed to a sharp deterioration in the fiscal position, leading to an EU-IMF programme.

Iceland's approach appears to have paid off relatively quickly. The budget deficit is expected to fall to 1.4% of GDP by 2012 and Iceland has regained access to international capital markets at reasonable rates. In June 2011, it issued USD 1 billion sovereign bonds with a premium of 320 basis points over mid-swaps. However, Iceland may face new challenges as capital controls are removed. By contrast, Ireland remains totally dependent on official sources and market sentiment towards Ireland, albeit severely affected by contagion from elsewhere in the eurozone and having improved in the summer, remains negative. However, it is not clear whether Ireland could have pulled off the Icelandic approach. Institutional arrangements and constraints are different and the carve-up of Icelandic banks and default on liabilities was aided by having a much larger proportion of bank assets and liabilities offshore than in the Irish case.

The contribution to be made by current bond holders to bank losses in Ireland remains a controversial issue (Table 2.1). However, the main concern for Ireland is whether the fiscal gains from such a bond holder contribution outweigh the costs in terms of greater wholesale funding costs for the banks in future as well as the cost (monetary and reputational) of ongoing legal disputes as even the compromise of bailing in subordinated bondholders achieved by the government is facing legal disputes.

Table 2.1. **Outstanding bond liabilities of the guaranteed institutions**

April 2011

| EUR m | Senior bonds guaranteed | Senior bonds unguaranteed secured | Senior bonds unguaranteed unsecured | Subordinated bonds | Total |
|---|---|---|---|---|---|
| AIB | 6 063 | 2 765 | 5 872 | 2 601 | 17 301 |
| BOI | 6 178 | 12 284 | 5 164 | 2 751 | 26 377 |
| EBS | 1 025 | 1 991 | 472 | 65 | 3 553 |
| ILP | 4 704 | 2 999 | 1 156 | 1 203 | 10 062 |
| Anglo | 2 963 | 0 | 3 147 | 145 | 6 255 |
| INBS | 0 | 0 | 601 | 175 | 776 |
| Total | 20 933 | 20 039 | 16 412 | 6 940 | 64 324 |

*Source:* Central Bank of Ireland.

### *Bank resolution and deleveraging*

After the initial phase of containment through guarantees, the second phase of a crisis is resolution and deleveraging. Part of this process in Ireland was to set up a bad bank, NAMA, to acquire assets in the form of property-development related bank loans in order to bring stability to the banking system and reduce the size of banks' balance sheets. NAMA completed the acquisition of 115 000 loans from 850 debtors with a nominal value of EUR 72.3 billion (46% of GDP) by December 2010 at an average haircut of 58% (Table 2.2). Among debtors, 180 account for EUR 62 billion of the portfolio, showing that the banks not only suffered from high exposure to property development, but also from high exposure to a small number of borrowers. In retrospect, such exposures could have been contained by limits to sectoral lending or the use of instruments such as loan to value ratios or a credit register to which financial institutions are obliged to report their lending in detail to strengthen credit appraisal by lenders and supervision.

Table 2.2. **Transfers to NAMA**

EUR billion

| | AIB | Anglo | BOI | EBS | INBS | Total |
|---|---|---|---|---|---|---|
| Nominal loan value | 19.6 | 34.0 | 9.3 | 0.8 | 8.5 | 72.3 |
| Discount | 54% | 62% | 42% | 60% | 64% | 58% |
| Consideration | 8.9 | 12.9 | 5.4 | 0.3 | 3.0 | 30.5 |
| Realized Loss | 10.7 | 21.1 | 3.9 | 0.5 | 5.5 | 41.8 |

*Source:* NAMA, Department of Finance.

An asset management agency such as NAMA can help restore the banking system to health, as it forces banks to recognise their losses and transfers bad assets off their balance sheets, allowing them to concentrate on new lending. Such a scheme can also improve banks` portfolios by providing assets that can be used as collateral to increase liquidity, in exchange for problem loans. However, the benefits of increased transparency were not fully captured in Ireland, in large part because loan-by-loan valuations (required by the European Commission) slowed the process of transfer. Experience suggests that the advantages of this loan-by-loan valuation approach are often outweighed by the time lost in cleaning up the banking system. However, in this case it may have been necessary because aggregate information provided by the banks to the government prior to the guarantee proved to be inaccurate and misleading. The urgency of the situation and the

lack of a well established banking division in the Department of Finance at the time made it harder to judge the information provided by the banks, so the subsequent increase in the banking expertise at the Department of Finance is very appropriate.

Crystallising losses upfront through NAMA led to the need for immediate recapitalisations of banks. Speedy recognition of the extent of the problems and complete recapitalisation at an early stage are key to the start of the recovery (Honohan and Klingebiel, 2000). Incomplete information, however, led to the piecemeal capitalisation of Irish banks in 2009-10. The pace of reforms picked up subsequently under the EU-IMF programme, which required recapitalisation of banks in line with prudential capital assessment reviews, among other financial sector reforms. The publication of the Financial Measures Programme ("stress tests") by the CBI in March 2011 proved to be an important turning point in the bank restructuring process (CBI, 2011b). The aim of these exercises was to remove market uncertainty about the magnitude of losses suffered by the banks which had been a major factor in negative financial market sentiment towards lending to not only the banks but also the Irish government. They were also designed to give financial markets confidence that the banks will have a strong capital base and buffer to withstand expected losses as well as additional losses that might materialize in adverse stress conditions. Similar exercises will be carried out once a year until at least 2013.

The stress tests included a Prudential Capital Assessment Review (PCAR) to determine the additional capital needed by Irish banks over a three year horizon to cover expected losses. They were based on conservative assumptions on loan losses and strict parameters (high capital ratio thresholds, three year periods of stress). The release had an immediate effect on market confidence as evidenced by the sharp, though temporary drop in the sovereign spread. The stress tests have been perceived by financial markets as a credible step on the road to achieving a banking system that is smaller, focused on core operations, well capitalized, has a stable market-based funding and is able to meet the credit needs of the Irish economy. Reflecting test results, the banks had to raise EUR 18.7 billion in order to meet new capital ratio targets (10.5% and 6% core Tier 1 in the base and adverse scenarios respectively). In addition, the Central Bank added a further capital buffer of EUR 5.3 billion for the unlikely event of further losses after 2013 (Table 2.3). The 2011 stress tests conducted by the European Banking Authority (EBA) show that the participating Irish banks meet the stress requirements and do not require additional capital beyond the requirement set by PCAR. The EBA tests were designed to gauge the resilience of European

Table 2.3. **Capital requirements from PCAR**

March 2011

| | AIB | BOI | EBS | ILP | Total |
|---|---|---|---|---|---|
| *Impact of additional buffer on capital requirements (EUR billion)* | | | | | |
| Capital required 2011-13 pre-buffer | 10.5 | 3.7 | 1.2 | 3.3 | 18.7 |
| Additional capital buffer (equity) imposed by the Central Bank | 1.4 | 0.5 | 0.1 | 0.3 | 2.3 |
| Additional capital buffer (contingent capital) imposed by the Central Bank | 1.4 | 1.0 | 0.2 | 0.4 | 3.0 |
| Total capital required 2011-13 | 13.3 | 5.2 | 1.5 | 4.0 | 24.0 |
| *Central Bank estimate of the impact of proposed capitalisation on current capital ratios* (%) | | | | | |
| CT1 ratio (December 2010) | 3.7 | 9.0 | 8.0 | 10.6 | |
| Pro forma CT1 ratio (assuming immediate capital injection) | 21.9 | 16.1 | 22.6 | 32.4 | |

*Source:* Central Bank of Ireland.

banks against a set of adverse circumstances, whereas PCAR was tailored to the Irish banks` need to reduce their reliance on external funding (CBI, 2011e).

Once recapitalized, the government plans to restructure the sector to leave only two universal banks as its core pillars (BoI and AIB-EBS), which will return eventually to full private ownership, as well as a restructured ILP. This is being complemented by competition from domestic and the existing foreign-owned banks and possible entry of other institutions. Anglo and INBS have been assessed by the government as unviable and have been merged with a view to winding them up. Their deposits have been transferred to AIB and ILP. In line with the Prudential Liquidity Assessment Review (PLAR), in terms of deleveraging, which is already underway, the target is to achieve a 122.5% loan-to-deposit ratio by the end of 2013, which involves the disposal of EUR 73 billion in non-core assets, of which around 70% are outside Ireland, lowering the risk of credit crunch effects on the Irish economy (Box 2.3). This will reduce the use of wholesale funding, which is generally less stable than deposits, and decrease reliance on Euro-system financing. However, the pace of asset reduction needs to be one that avoids fire sales and allows the banks to still issue new credit which is important for the recovery.

### Box 2.3. **Foreign assets and liabilities of covered credit institutions**

Foreign assets are amounts owed to Irish banks by non-Irish residents and cover all on-balance sheet items, including loans, deposits, equities and debt securities. The aggregate foreign assets of domestic Irish banks at EUR 200 billion (130% of GDP) are among the highest in the euro area. Foreign assets held by banks in Austria and France are at around 135% of GDP, and between 80% and 100% of GDP in Germany, Spain and Belgium. The largest Irish exposures are to the UK at around EUR 119 billion (60% of total claims), reflecting the close economic links between the two countries and the US at 12%.

High foreign exposure has advantages as foreign assets provide an important source of diversification for the Irish domestic banking system away from a relatively weak domestic economy; they provide a potential avenue to deleverage the banking system and repay foreign creditors without unduly affecting domestic credit. The balance sheets of the six covered domestic institutions show that their foreign assets and liabilities roughly match. The foreign assets can be potentially disposed of as market conditions improve and be used to decrease the foreign liabilities, most notably reduce borrowing from the Eurosystem.

Table 2.4. **Foreign assets and liabilities in covered domestic credit institutions, December 2010**

EUR billion

| ASSETS | | LIABILITIES | |
|---|---|---|---|
| Loans to non-residents | 139 | Deposits from non-residents | 30 |
| Holdings of securities issued by non-residents | 54 | Debt securities issued (non-residents) | 104 |
| Remaining assets (non-residents) | 7 | Remaining liabilities (non-residents) | 12 |
| | | Borrowing from the Eurosystem | 91 |
| **Total** | **200** | **Total** | **237** |

*Source:* Central Bank of Ireland.

### *Managing impaired assets*

Management of impaired assets transferred to NAMA from failing institutions is the third phase in resolving the crisis. According to BIS (2002), "asset recovery should aim to be economic, fair and expeditious, with a view to maximizing the recoveries on a net present value basis". At this stage, a strategy should be discussed based on the quality of assets, economic and financial market conditions, the availability of interested investors and resources as well as the capability and skills available for active asset management.

Although asset management companies (AMCs) are widely used to expedite restructuring or to dispose of assets rapidly, the empirical evidence on their success is mixed (Klingebiel, 2000). They are successful in resolving insolvent and unviable financial institutions and selling their assets, given certain conditions such as having less complex assets (*e.g.* real estate), good management, political independence, appropriate funding, adequate bankruptcy laws and transparency. NAMA fulfils most of these criteria, but should be supported by reformed bankruptcy laws.

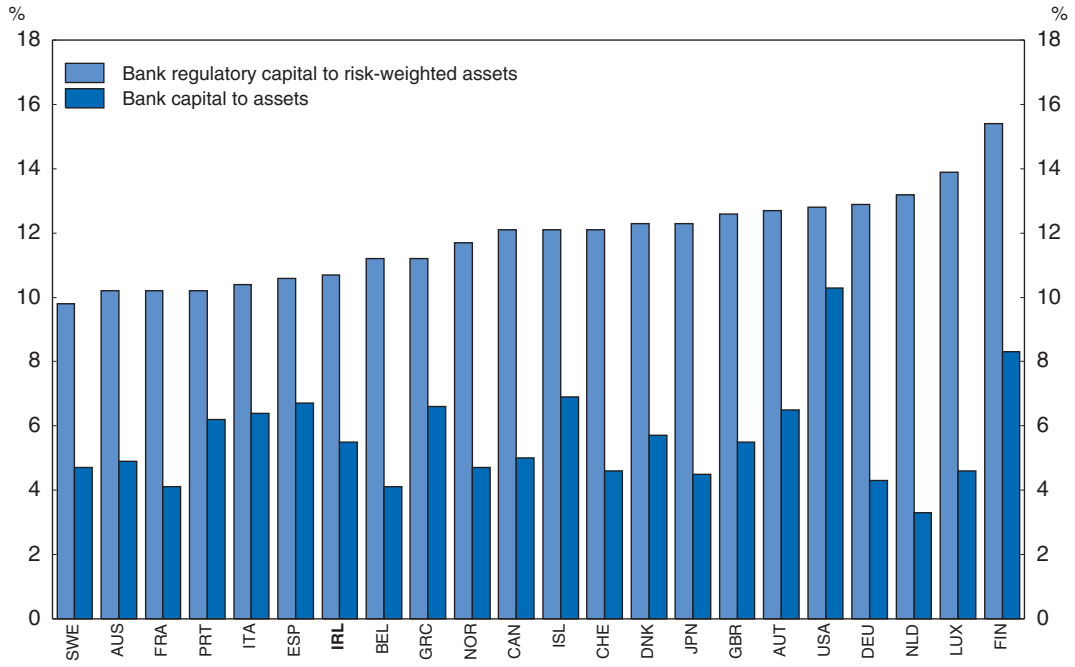
NAMA aims to manage its assets in a way that results in the best possible return for the taxpayer over a timeframe of 7-10 years. However, in response to low activity in the residential housing market, NAMA has proposed a small-scale pilot programme to stimulate interest in the purchase of residential property by providing some protection against possible additional price declines. In implementing this programme, care must be taken to avoid directly exposing the government to further house price risk. If not, this would distort the property market and expose the government to asset price risk that should rest with the house buyer. In order to prevent this, it is important that this NAMA pilot programme remains transparent and of a small size.

## Understanding the origins of Ireland's bank supervisory and regulatory failures

Like in many other countries, Irish financial supervisors relied heavily on financial soundness indicators (FSIs) and stress tests. Identifying why these tools did not deliver the right signals is important for understanding why policy failed and how to keep the Irish financial system on a more sustainable path in the future. FSIs assess the adequacy of capital, the quality of assets, the level of earnings, the amount of liquidity and the sensitivity to market risk. They also assess the health of the non-financial sector and the overall macro economy and aim to measure risk. However, many of these indicators failed to warn of the impending crisis in Ireland. In particular, traditional financial stability indicators such as capital and solvency ratios, non-performing loans, profitability, stress tests and the analysis of the rating agencies failed to detect the problems in the Irish banking system. Aggregate capital ratios for the whole banking system and main individual banks showed adequate capital buffers in 2007 (Figure 2.3). Even the EU stress tests carried out in mid-2010, well into the crisis, suggested that the major financial institutions had adequate capital buffers. Irish banks were considered to be well capitalised with solvency ratios in excess of the regulatory minimum. The average value of the Tier One capital ratio between 1997 and 2003 was 8.4%, so even the subsequent decline was not enough to raise warning signals.

Aggregate data on non-performing assets prior to the crisis also suggested that the Irish banking system was healthy. Low interest rates and high employment were key factors keeping these numbers low. As a result of this, the ratio of provisions to

Figure 2.3. **Capital adequacy indicators, 2007**




*Source:* International Monetary Fund (IMF), *Financial Soundness Indicators*.

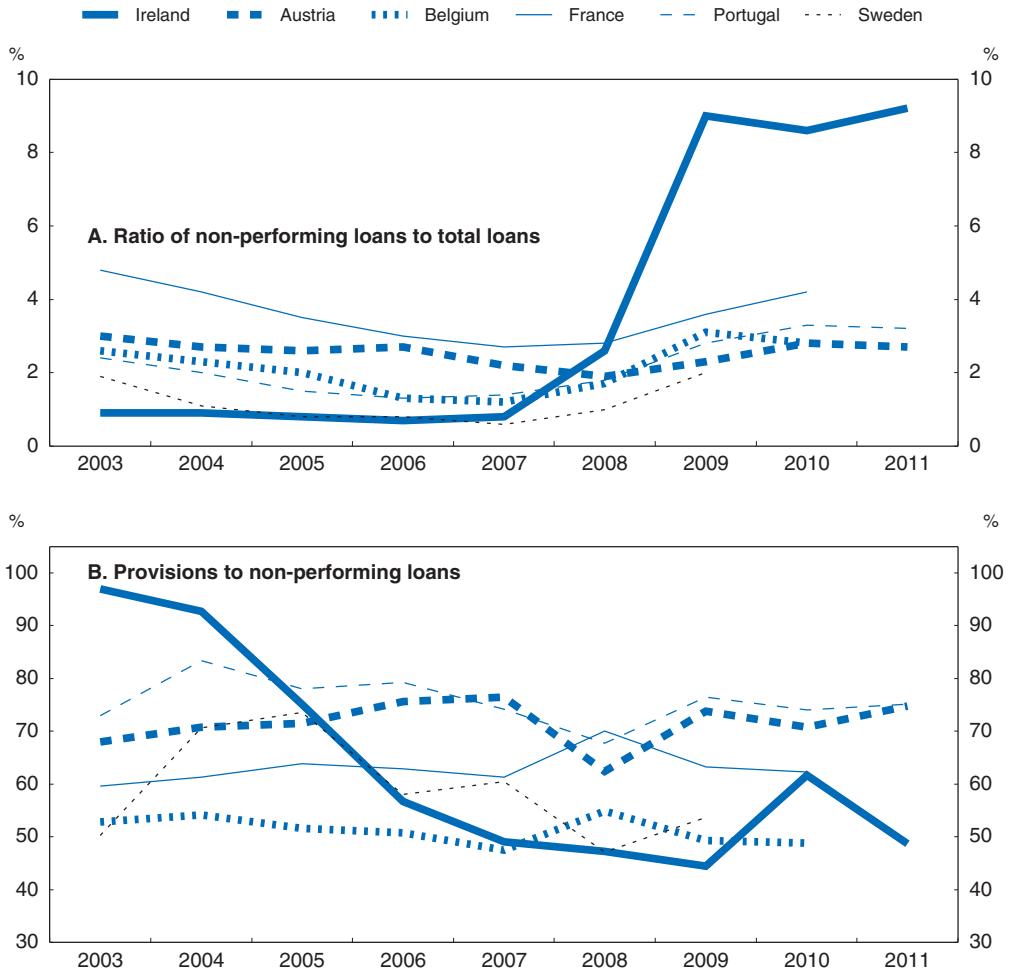
StatLink http://dx.doi.org/10.1787/888932527262

non-performing assets fell as well. The decrease in provisions was particularly strong in Ireland. One explanation offered by the Central Bank for this trend is the rise in the share of mortgage lending in the loan books of banks. Due to the collateralized nature of mortgage lending, the ratio of provisions to non-performing loans (NPL) declined in the period leading to the crisis (Figure 2.4).

Another explanation for the low level of provisioning was accounting standards and Basel II rules, which encouraged pro-cyclicality in provisions. The adoption of International Financial Reporting Standards (IFRS) accounting rules in 2005 eliminated the use of general provisions or expected loss provisions and replaced them with an incurred-loss model. This allowed the banks, prior to 2007, to reduce loss provisions, raise profits and increase their lending capacity. The provisioning level for the 6 main banks decreased from 1.2% of loans in 2000 to around 0.4% in 2007. The resulting improvement in accounting profits increased their lending capacity by over EUR 30 billion (Nyberg, 2011). The failure of banks to make more prudent provisions based on anticipated future losses, especially with regards to secured property lending, left them with inadequate provisioning buffers when the crisis hit. Dynamic provision for losses and countercyclical limitations on lending compared to deposits could have been used to address these vulnerabilities.

However, some indicators gave warnings of a deterioriating situation: growth of assets and lending; concentration of lending in property-related loans; high LTV mortgages; household indebtedness; and dependence on wholesale funding. In particular, indicators of the underlying quality and diversification of the banks' assets and their funding model proved to be far more revealing than measures such as capital adequacy. Ratios to GDP of

Figure 2.4. **Non-performing loans**[1]




1. For 2011, various quarters.

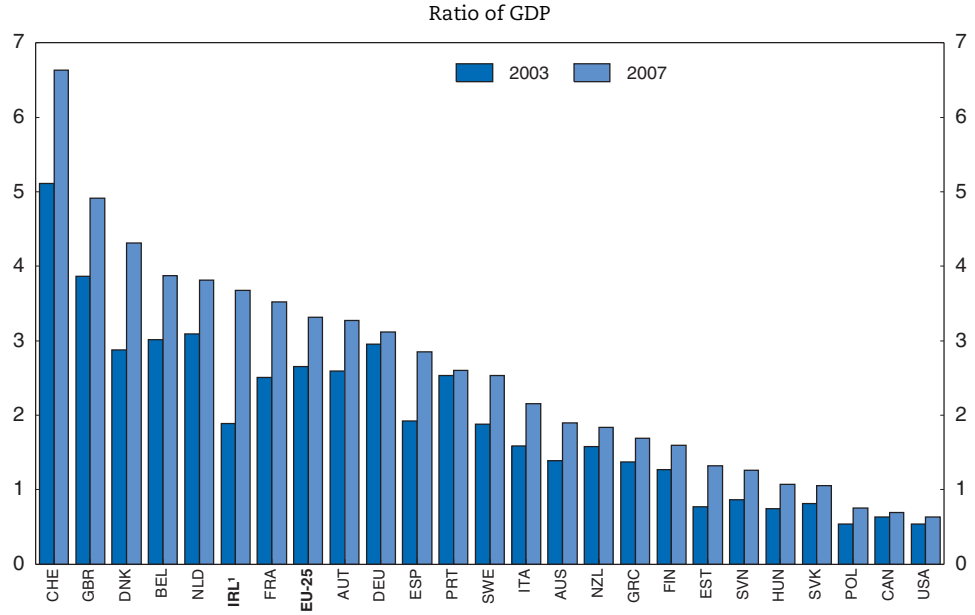
*Source:* International Monetary Fund (IMF), *Global Financial Stability Report Financial Soundness Indicators Tables* September 2011.

StatLink http://dx.doi.org/10.1787/888932527281

loans to non-financial corporations, real estate loans and private sector credit also signaled vulnerability. This was however overlooked by the regulators, reflecting the light-touch/non-intrusive approach to banking regulation and supervision, intensified due to competition with other financial centres (Honohan, 2010). Expecting a soft landing, the financial regulators did not take concrete actions. Studies at the macroeconomic level show that extreme asset and credit growth can lead to banking crises. The decade prior to the global crisis saw an expansion of assets in magnitude and as a per cent of GDP in many countries but it was especially pronounced in Ireland (Figure 2.5).

Overall asset growth was very undiversified. The main driver behind the expansion of Irish banks was mortgage lending (Figure 2.6). Loans to non-financial corporations, mainly property developers, also increased rapidly, overtaking loans to households in 2007. A breakdown of lending data shows that overall lending, and particularly lending to households, was heavily skewed towards property-related lending, which accounted for

Figure 2.5. **Size of the financial system: bank assets**




1. For Ireland, domestic banks only.

*Source:* Central Bank of Ireland (CBI); European Central Bank (ECB) Structural Indicators; United States Federal Reserve; Reserve Bank of Australia; Reserve Bank of New Zealand; Bank of Canada and Swiss National Bank.

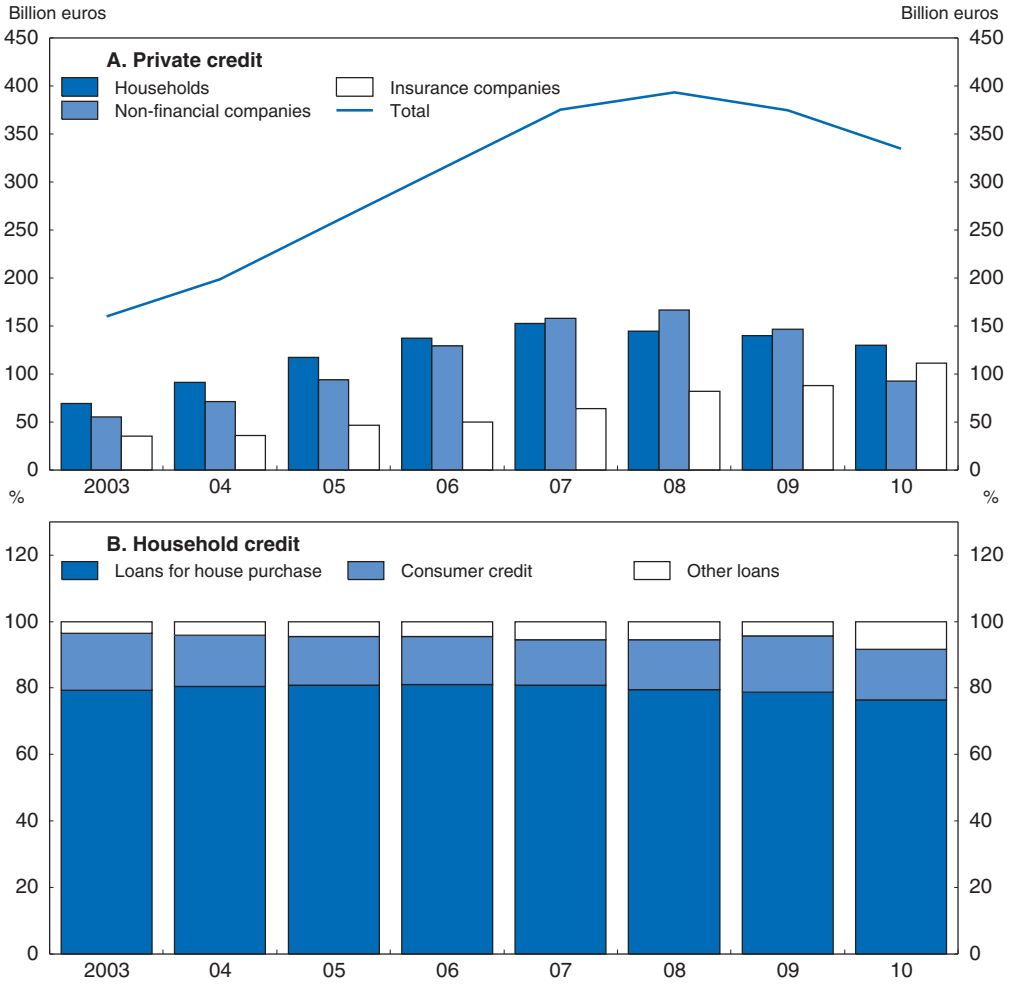
StatLink http://dx.doi.org/10.1787/888932527300

80% of outstanding loans to Irish households and around 50% of loans to Irish residents in 2006. The percentage of household loans that were mortgage related in 2006 was at similar levels in Belgium, Denmark, Estonia, Portugal and the United Kingdom 71% for the euro area, 53% in Austria and Hungary and as low as 45% in Poland.

The rapid expansion of loans for residential and commercial property made the banking sector vulnerable to a downturn in the housing market. This was exacerbated by the use of high loan-to-value (LTV) ratios (Figure 2.7). Aware of the risk of a housing bubble, the Central Bank encouraged banks to be more prudent with respect to their LTV ratios to guard against the consequences of a fall in house prices. There was a slight increase of capital cover for high LTV loans in 2006, but this was too little and too late. Given the steep increases in house values, it might have been better to use loan to income (LTI) ratios to decrease vulnerability to a reversal in house prices, as income levels are better known than fundamental housing values. In retrospect, it appears the dangers associated with a housing market collapse were underplayed and expectations of a soft landing dominated, despite the warnings that housing market indicators provided.

As the demand for loans grew, Irish banks developed a funding gap that had to be financed from non-domestic sources. The ratio of banks' deposits to loans fell from 93% in 1997 to 70% in 2003 and as low as 43% in 2008. This gap forced banks to fund their loans through more volatile sources, notably capital markets or the interbank market. Although more expensive than deposits, this type of funding was historically cheap due to global economic conditions and the availability of credit, making it attractive. This increased the vulnerability of the financial system by driving the banks to more risky investments due to the deterioration in net interest margins, as well as by increasing dependence on cross-border wholesale funding, which dried up in the global financial crisis (Figure 2.8).

Figure 2.6. **Developments in the private credit market**




*Source:* Central Bank of Ireland.

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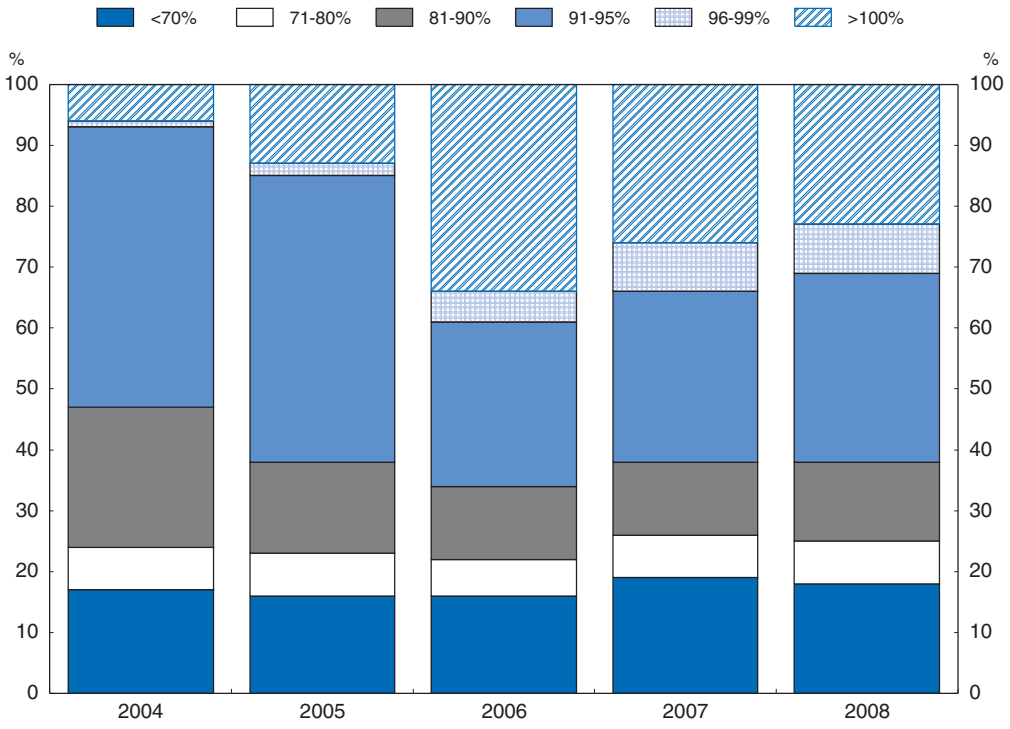
Prior to the crisis, major actors (banks, regulators and policy makers) did not appear to fully appreciate the vulnerabilities associated with wholesale funding, including interest rate fluctuations, changes in market sentiment and rollover risk. The funding of bank lending by sources other than stable deposits was a vulnerability of many economies, but the resulting fiscal costs were considerably larger in Ireland. Short-term wholesale funding creates liquidity risk, but is preferred by banks as relatively cheap and all the costs of liquidity risks are not internalized by the banks. Cross-country analysis suggests that dependence on wholesale market funding is correlated to the size of bank rescue packages (Figure 2.9). An aggregation of capital injections, purchase of assets by the Treasury, guarantees, upfront government financing, liquidity provision and other support by central banks showed that Ireland's public assistance to its banking system, including contingent liabilities, was around 200% of GDP. Potential contingent liabilities arising from sovereign support for the banking sector have increased from 31.6% of GDP in 2008 to 81.7% of GDP in 2010 (Schich and Kim, 2011).

Some financial soundness indicators have been criticized as low frequency, static and backward-looking variables that fail to capture risks fully (Cihák and Shen 2009, Pohosyan

Figure 2.7. **Loan to value ratios for housing of first time buyers**




*Source:* Department of Environment, Heritage and Local Government.

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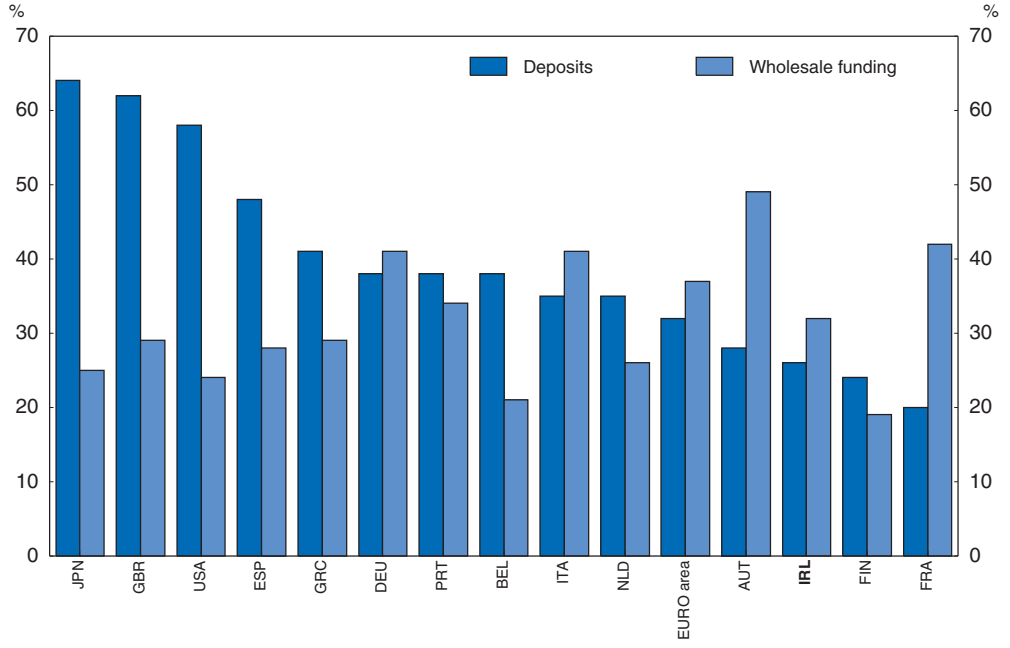
Figure 2.8. **Reliance on wholesale funding**

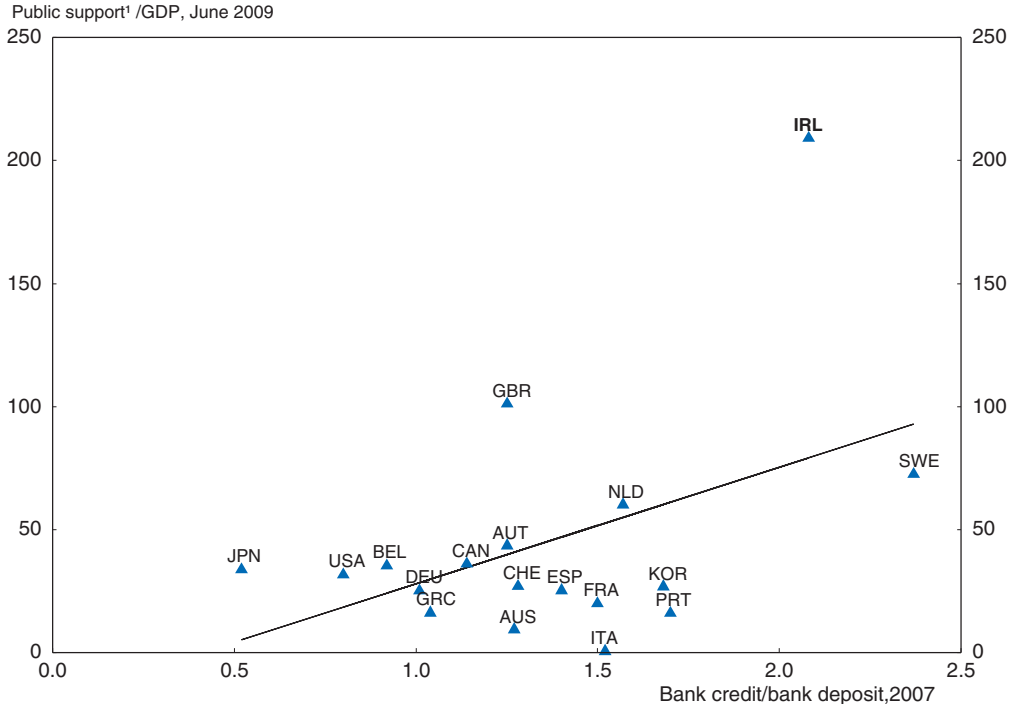
As percentage of total liabilities, end-June 2010




*Source:* International Monetary Fund (IMF), *Global Financial Stability Report*, October 2010.

StatLink http://dx.doi.org/10.1787/888932527357

Figure 2.9. **Public assistance to banks and wholesale funding**




1. Public support is an aggregation of capital injections, purchase of assets by the Treasury, guarantees, upfront government financing, liquidity provision and other support by central banks.

*Source:* International Monetary Fund (IMF), *2009 FAD_MCB* Database and *World Bank Financial Development and Structure Database*.

StatLink http://dx.doi.org/10.1787/888932527376

and Cihák 2009), suggesting that they need to be complemented by other indicators, including market signals (equity volatility, credit and CDS spreads) and stress tests (IMF 2009). All of these supervisory tools have their shortcomings as demonstrated by the magnitude of the crisis. The crisis also showed that addressing the vulnerabilities highlighted by these supervisory tools can be challenging and depends on the attitude and powers of the financial regulator. Utilizing a diverse set of sources can provide the financial regulator with more backing to intervene and escape the herding behaviour of different agents observed in Ireland (Nyberg, 2011). This would also help the authorities to be more prepared with a comprehensive plan before the crisis. Collection and publishing of more data can yield information on signals of distress (IMF and FSB, 2010a). In Ireland, the authorities have started addressing data gaps and now publish new data series that will enable agents to have a deeper understanding of developments in the economy.

The main lesson from the 2008 crisis is that serious consequences can arise from supervisory failure, so it is important to focus on risks across countries and sectors, and to consider macro financial linkages. The G20 tasked the IMF and the Financial Stability Board (FSB) with establishing a joint Early Warning Exercise (EWE), which aims to identify underlying vulnerabilities and imminent tail risks in financial systems such that corrective policies and contingency plans can be developed ahead of time (IMF and FSB, 2010b). The recent crisis has shown that leverage and liquidity are important propagators of business and financial cycles and that surveillance should take into account the role of asset prices

in causing recessions. In Ireland, stress tests did not consider liquidity and housing market risks together and preparation for the realisation of stress scenarios was inadequate.

In the absence of an adequate supervisory framework, no concrete actions were taken to address the vulnerabilities in the financial sytem due to several governance and supervision failures (Honohan, 2010; Regling and Watson, 2010; Nyberg, 2011). Governance failures included a lack of adequate disclosure standards, poor loan evaluation procedures and risk assessment systems, and too few checks and balances on management, including on remuneration schemes that encouraged risk taking. Supervision failures were in the fields of: *i)* micro-prudential policy, such as the non-intrusive style of supervision that depended on the internal risk assessments of banks, and the inadequacy of staff resources to supervise an ever growing banking system; *ii)* macro-prudential policy, such as the failure to address the rapid increase in mortgage lending by imposing additional capital requirements, caps on sectoral lending, or loan-to-value ratios; and *iii)* financial stability policy, such as the dependence on expectations of a soft landing to the housing bubble in stress tests and external and internal evaluations.

## The new approach to banking supervision and regulation

The Irish authorities have taken many measures to address these weaknesses. In many countries, the recent crisis has led to a merging of financial regulation duties at the central bank. An analysis of the performance of financial regulators in the recent crisis has indeed shown that credit growth based on wholesale funding was lower in countries where the central bank was the primary regulator (Merrouche and Nier, 2010). In Ireland, financial regulation and supervision have also been merged once again into the Central Bank, after having been carved off into a separate financial regulator in 2003. The Central Bank will be responsible for regulation of the banking system at micro and macro-prudential levels so that attention can be paid to macro-financial linkages. The main objectives set out in the Central Bank Reform Act 2010 are to create a new fully-integrated structure for financial regulation and the introduction of a fitness and probity regime for the financial sector. The goal of the promotion of the growth of the Irish financial sector, which had hindered the financial regulator from appropriate supervision of the growth in credit during the boom years, has been dropped.

The protection of consumer interests is fundamental to a fully functional financial system and the Irish measures taken to address this issue are very welcome. However, potential conflict of interest between protecting consumers and stabilising the financial system, especially at times of crisis, is best avoided. One way to achieve this is to assign the role of protecting consumer interest to a separate institution since the skills required to fulfil the duties of consumer protection are different to those required by a financial regulator and the regulatory culture might focus more resources on consumer protection. "A regulator charged with both enforcing rules and managing systemic risk will eventually devote too much of its attention to rule enforcement" (Squam Lake Working Group on Financial Regulation, 2009). There might also be cases when political pressure might arise on the financial regulator regarding its duties of consumer protection, interfering with its independence. The forthcoming G20 principles on Financial Consumer Protection (FCP) will be beneficial in providing guidance in this area.

As recommended in the previous *OECD Economic Survey*, the government is also moving to introduce a special resolution regime for banks in the case of failure consistent

with the EU framework. This should go hand in hand with the deposit insurance scheme. The lack of authority to intervene in the early stages to reduce the risk of bank failure or to resolve failed financial institutions was a problem shared by many countries during the crisis (Cihák and Nier, 2009). European guidelines are being prepared to address this vulnerability, recommending national resolution regimes with well-defined powers and processes on who should bear the costs, a balance of the property rights of creditors with efficiency and ways to deal with cross-border institutions. In Ireland, the government has introduced the Central Bank and Credit Institutions (Resolution) (No. 2) Bill 2011 into parliament to provide a toolkit to facilitate the orderly resolution or winding up of a distressed institution.

According to the CBI, there have also been significant changes to introduce a more intensive style of supervision, including via more on-site surveillance of banks and attendance of the regulators at key meetings. Bank supervision now focuses on the governance and risk management, mortgage credit standards and funding risk, bank lending procedures (especially to SMEs) and remuneration practices of the financial institutions. Codes on corporate governance requirements, related-party lending and fitness and probity of board members have been put in place. The Central Bank (Supervision and Enforcement) Bill 2011 published in July 2011 strengthens the ability of the CBI to impose and supervise compliance with regulatory requirements and to undertake timely prudential interventions. The Bill also provides the CBI with greater access to information and analysis that will help it credibly enforce Irish financial services legislation in line with international best practice.

The CBI published a 3-year strategy (CBI, 2010b) in July 2010, and an update of its implementation of the reform agenda in May 2011 (CBI, 2011c). As a starting point, key alterations have been made in the structure of banking supervision. The financial regulator has been reorganized to address past weaknesses. In order to fulfill these extra duties as well as effectively supervise institutions, including more frequent onsite surveillance, the numbers and skills of the staff are being stepped up. The Financial Stability Committee, chaired by the Central Bank Governor, has been altered to include senior staff from both the regulatory and macroeconomic departments and meets more frequently.

The financial crisis also exposed weaknesses in the regulation of equity capital under Basel I and Basel II rules, which provided an insufficient buffer against losses and meant that a costly recapitalization had to be made by the government. In order to help prevent this from recurring, the Central Bank should adopt a set of indicators covering the many dimensions of banks' risk taking. Ireland should adopt the Basel III standards as soon as feasible. In addition, using a simple overall leverage ratio (total un-risk-weighted assets over capital) should be considered as a backstop to the capital ratio. The large role of property loans in the financial crisis also suggests that more rule-based regulation, such as caps on the ratio of loans to values (LTV) or incomes (LTI), should be considered. Capital ratios that increase with bank size would help deal with the particular difficulties posed by systemically important financial institutions and a credit register to prevent excessive exposures to certain sectors and borrowers should be considered.

Another problem highlighted by the financial crisis has been the gap between financial stability assessments and effective policy action. The vagueness of enforcement mechanisms and the unclear mandates in terms of supervision led to inaction in the face of warnings and regulatory forbearance was observed in some cases (Nyberg, 2011). The

financial regulator should consider setting up thresholds for a few indicators that can be used to gauge the riskiness of a financial institution. Departures from these benchmarks can prompt a series of actions, starting from more intense supervision of the institution to imposition of higher capital requirements and asking the financial institution to scale down its business. For example, the bank-specific "Supervisory Diamond" introduced in Denmark in 2010 has identified large exposures, lending growth, funding ratio, concentration on commercial property exposures and liquidity ratios as potential risk areas to be monitored. The financial regulator in Ireland could use a similar tool. Starting a dialogue at an earlier stage can help avoid larger problems in the future. Making these thresholds transparent and giving the financial regulator power to make banks comply in the face of breaches can lead to better supervision and prevent regulatory forbearance.

In order to provide a transparent assessment of the financial sector, the publication of financial stability reports should be resumed. They should be improved to include more rigourous stress tests, provide more detailed information on the different sectors of the economy and a clearer evaluation of macroeconomic and financial risks faced by the financial sector. The financial regulator has also introduced risk governance panels to track the risks, performance and business models of the financial institutions, using a risk dashboard. The use of this type of surveillance is spreading in the post-crisis era in many countries. It would be useful to provide more information about what criteria and thresholds are being used in this risk assessment. Markets should be made aware of the vulnerabilities revealed by these criteria in a general sense without providing sensitive information to the public. This would provide an incentive to the financial institutions to monitor such risks themselves.

## Future of the financial system

The Irish financial system faces several future challenges. The recapitalisation, deleveraging and restructuring of the main banks, the management of the assets that have been transferred to NAMA and the strengthening of banking supervision are all part of the crisis response. However, it is also important to create a financial system that fulfils its duties of providing credit to the Irish economy, laying the foundation for supervision under normal times and avoiding moral hazard.

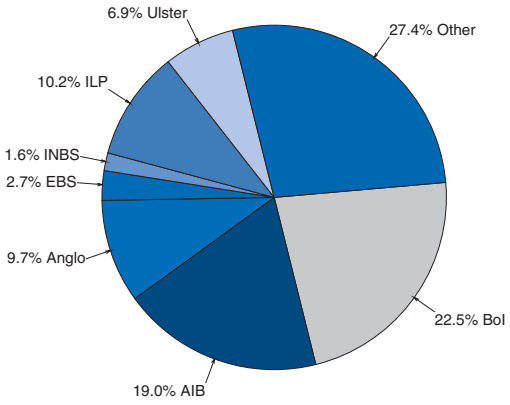
To this end, Ireland needs to develop a credible exit strategy and timetable for the withdrawal of its guarantees and measures to avoid the perception that such extensive guarantees will be available in the future. The Eligible Liabilities Guarantee (ELG) Scheme introduced in September 2009, became the sole guarantee after the expiry of the initial CIFS "blanket" guarantee in September 2010. The ELG is much more targeted and restricted, and charges higher fees. However, as financial market confidence returns, the guarantee scheme needs to be narrowed to an even more restricted range of liabilities, but the timing and speed is a fine balancing act. An early exit when the financial system is still fragile could revive concerns about the health of the sector, but too slow exit could increase the distortion to incentives and competition. In the design for normal times, a more restricted guarantee scheme should be implemented. It should continue to have a fee structure that takes account of risk and well-defined types of liabilities to be covered, in order to minimize moral hazard and the cost to the taxpayer. The early stages of the exit strategy should be designed to encourage banks to return to wholesale funding markets. Beyond deposits, guarantees should be designed to deal with an immediate liquidity crisis

which would exclude guaranteeing existing long-term bonds which were included in the initial "blanket" guarantee.

Due to the envisioned restructuring and deleveraging process, the Irish banking system will become more in line with the size of the economy. However, these developments will result in a smaller number of banks and the financial regulator should be cautious about competition issues that might arise due to concentration of financial services in fewer institutions. It is important to ensure that there is a level playing field among financial institutions that have received large government support and those that did not (Figure 2.10).

Figure 2.10. **Assets of individual banks, December 2008**

As a share of total domestic bank assets




*Source:* Central Bank of Ireland (CBI); *Bankscope Database* and *Bank Annual Reports*.

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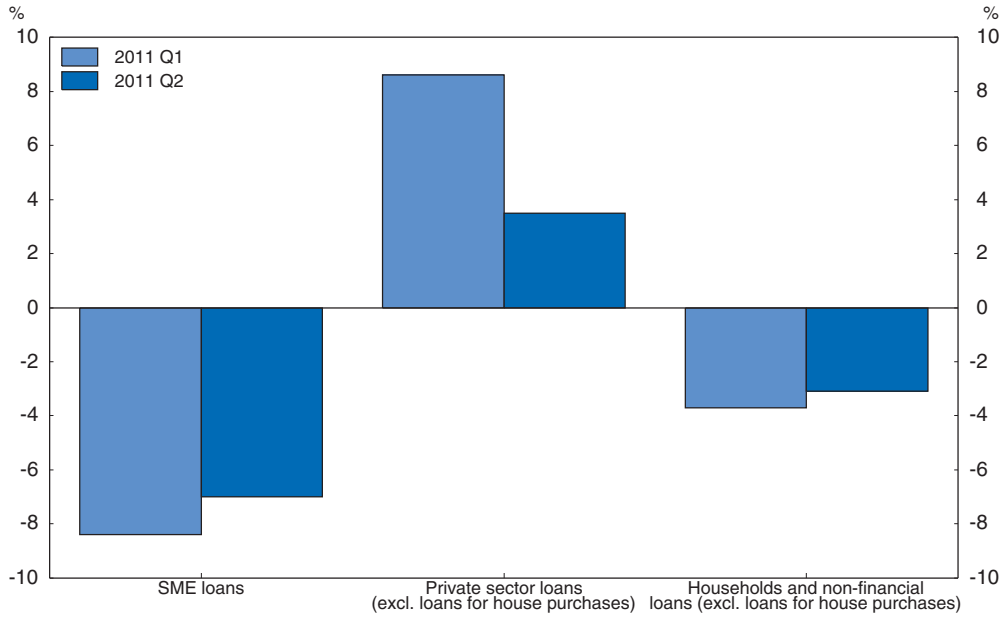
Most importantly, the domestic banking system should be in a position to supply the credit necessary for the recovery. With the disruptions to the lending ability of banks due to the crisis and the decline in demand for credit, private sector credit has been declining. However, the decline in lending to small and medium enterprises (SME) has been more pronounced than the decline in lending for non-housing related household and non-financial firm loans (Figure 2.11). Lending to SMEs will be important for the recovery, as they account for 90% of private sector employment in Ireland and are an important part of the recovery of the real economy. In the first half of 2010, the stock of SME lending declined by 5.1% to EUR 69.3 billion. When the banks were recapitalised in February 2009 and March 2010, the government imposed conditions on BoI and AIB to make available for targeted lending not less than EUR 3 billion each for new or increased credit facilities to SMEs. A Credit Review Office (CRO) was established in April 2010 to review the negative credit decisions of the institutions participating in the NAMA process and to provide advice to the government on what actions can be taken. The transfer of loans to NAMA was also designed with the aim of freeing the banks to engage in new lending.

Due to their size and diversity, SMEs provide banks with the opportunity to diversify their lending and risk, add revenue and acquire reliable sources of deposit funding. A review of the three main banking institutitions (AIB, BOI and Ulster Bank) showed that banks are building business plans to engage in SME lending, but so far these are short-term

plans and need more fine tuning (CBI, 2011a). An early analysis by the Central Bank shows that credit standards have not been lowered to meet lending targets set by the government recapitalisation. The CRO Report in May 2011 (CRO, 2011) shows that these lending targets were exceeded by both AIB and BoI with combined new and restructured lending totaling around EUR 8 billion; however allocation of credit should not depend on quantitative targets set by government as they can lead to distortions in credit markets.

Figure 2.11. **Quarterly change in private sector loans**




*Source:* Central Bank of Ireland (CBI).

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In the period before the crisis, SME lending was related to property, but as banks change their business model to refocus towards non-property sectors, credit assessment will depend on evaluating future cash flows rather than collateral. The lack of experience with this type of credit decision, combined with the fact that some SMEs are under financial stress and the lack of local market knowledge by banks, complicates this transition further. Banks need to resolve these issues quickly. Upgrading the banking sector's ability to perform cash-flow lending on a sound basis will be of particular value to SME exporters, as involvement in international trade increases both working capital needs (due, for instance, to the larger delay in getting products delivered to clients) and the required level of market expertise by credit institutions. The central bank can assist the transition to a new business model by helping to disseminate and give guidance in best practice in SME lending while remaining vigilant about vulnerabilities that may develop over time in this lending category.

## Corporate and household bankruptcy and debt restructuring regimes

The legal regime for resolving bad debts is integral to the resolution of bad debts and restoring the Irish financial system to health. The size of household bad debt is large. According to a household survey conducted by the Central Statistics Office, a quarter of all households were in arrears with at least one bill or loan on at least one occasion in 2009,

compared to 10% in 2008. In the period ended March 2011, 6.3% of private residential mortgage accounts were in arrears for more than 90 days. If current non-performing loan (NPL) problems are not resolved in an efficient and fair way for both creditors and debtors it would likely discourage both the future demand and supply for credit. The relevant legal regime will thus be integral to the resolution of bad debts and restoring the Irish financial system to health. In this light, current bankruptcy laws and debt resolution procedures could be improved. The government is preparing draft legislation to reform personal insolvency with the aim of balancing moral hazard concerns against efficient and effective proceedings. The government's plans to introduce a new structured non-judicial debt settlement and enforcement system as an alternative to court proceedings are welcome. This move can potentially make a large contribution to fairly and efficiently resolving the large overhang of bad household debt. In the meantime, some emergency measures have been taken to address the urgent restructuring needs of the financial system. The CBI has published a Code of Conduct on Mortgage Arrears to prevent costly and unnecessary defaults and a similar Code of Conduct on Loans to SMEs.

### Box 2.4. **Main recommendations on overcoming the banking crisis**

**Exit from the crisis**

- NAMA should remain focused on its long term mission of managing its assets to achieve the best possible return for the taxpayer and refrain from activities that increase the contingent liabilities of the government.
- As financial market confidence returns, the bank liability guarantee scheme should be narrowed to a more restricted range of liabilities, with fees that are commensurate with risk so as to minimize moral hazard and taxpayer costs.

**New supervisory framework**

- To help prevent future crises, adopt as soon as feasible, the standards envisaged by Basel III. Consider using a leverage ratio (total un-risk-weighted assets over capital) as a backstop to capital ratios. In addition to the loan to deposits (LD) ratio already in place, consider using further rule based regulation, such as caps on the ratio of loans to values (LTV) or incomes (LTI), capital requirements linked to the size of the bank to address systemic risks. Consider a credit register to prevent excessive exposures to certain sectors and borrowers.
- To prevent the recurrence of problems with regulatory forbearance, consideration should be given to having a well-defined process where the breach of identified benchmarks on a few indicators, such as excessive growth in overall lending, would accelerate a formal assessment of what, if any, corrective action may be required. For example, the financial regulator can be given the power to enforce higher capital requirements or scaling down of the bank business if certain thresholds of a number of indicators are breached.
- To ensure good co-ordination and monitoring of macro-financial linkages, improvements in communication between the various agencies in charge of the banking sector should be continued. The strengthening of the banking issues division of the Department of Finance should be permanent. The publication of financial stability reports that provide information on the financial system and macro-financial linkages should be resumed.

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*Chapter 3*

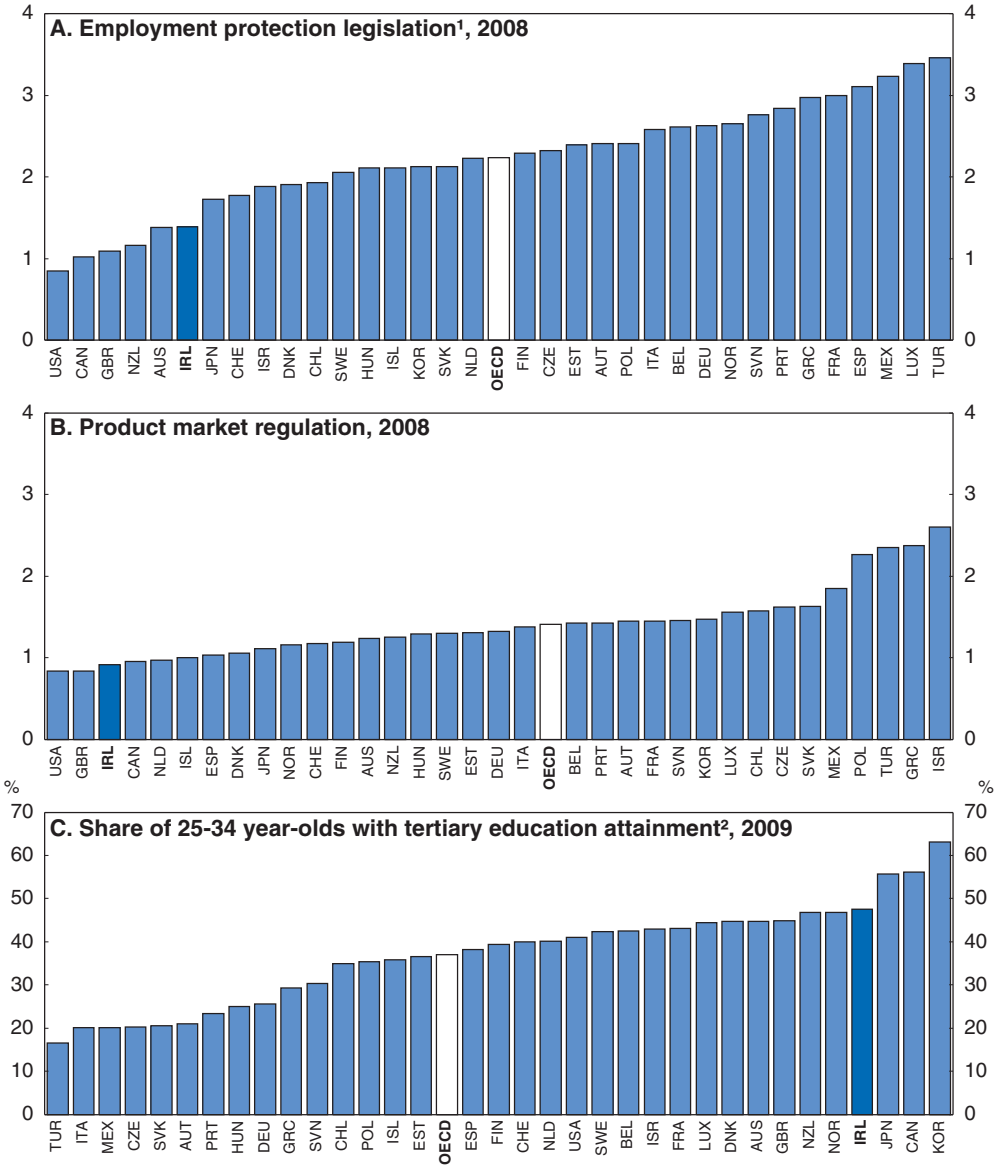
# Structural reforms to reduce unemployment and restore competitiveness

*After a recession of historic proportions, an export-led recovery is gaining traction in Ireland. The pace of recovery, however, varies sharply across sectors. While export-oriented manufacturing and services, led by large multinationals, have reached record-high levels of output, inward-oriented sectors, where Irish-owned SMEs predominate, are by and large still struggling to emerge from the crisis. Reflecting the weakness of this traditional sector, which is labour intensive, unemployment rates remain very high, particularly among young men with low or intermediate qualifications, often formerly employed in the construction sector.*

*To tackle high and persistent unemployment and thus stave off social exclusion, Ireland needs to further pursue an integrated three-pillar strategy: welfare reform to ensure that work pays; better activation policies to assist labour reallocation across sectors; and a sustained restraint in wages and other business costs to restore international competitiveness. In particular, often building on recent policy initiatives or commitments, this chapter recommends reforms to further enhance product-market competition, improve innovation efforts and ameliorate the quality of education, which are key to economic prosperity.*

Ireland retains many of its underlying strengths: it is an open economy with flexible product and labour markets and high levels of human capital (Figure 3.1), with a business-

Figure 3.1. **Market regulation and labour force skills in OECD countries**




1. Strictness of employment protection, overall, version 3. Figures for France and Portugal refer to the year 2009. Greece has taken several measures since 2008, as described in the OECD Economic Survey of Greece 2011, which have improved the Greek indicators somewhat.
2. Tertiary-type B, A and advanced research programmes.

*Source:* OECD, *Education at a Glance 2011*; *Product Market Regulation Database* and *Employment Protection Legislation Database*.

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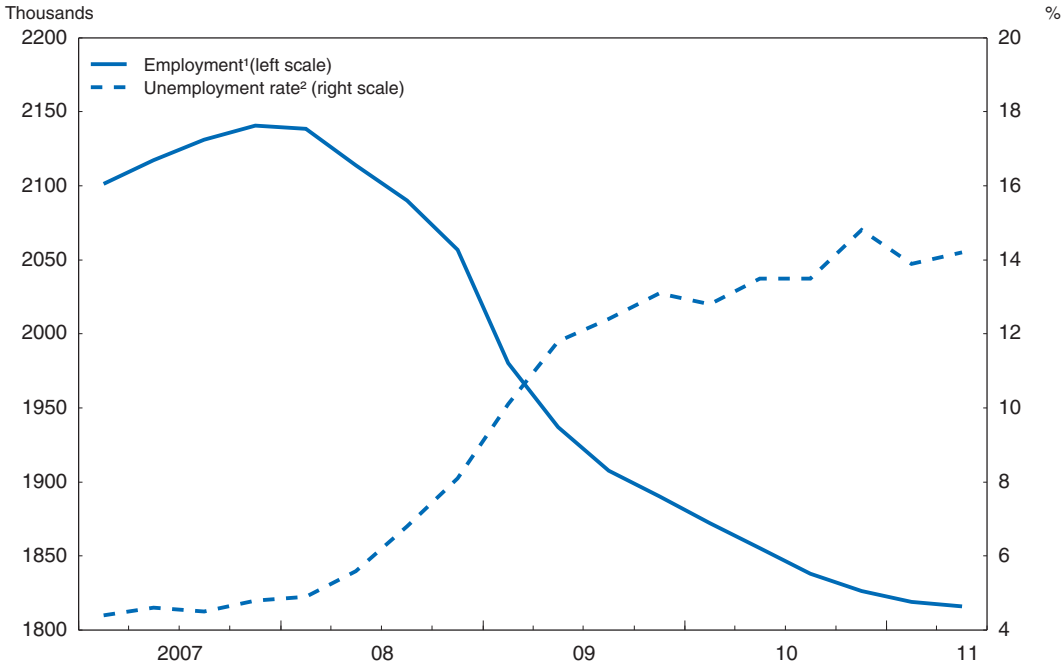
friendly environment and a favourable geographical location. Nonetheless, high unemployment is now a difficult challenge: the crisis tripled the unemployment rate, and long-term unemployment has increased more than five-fold. Unemployment could remain persistently high, undermining potential growth, increasing poverty and jeopardising social cohesion. To avoid these adverse trends, employment should be promoted by appropriate reforms in labour market and welfare policies. Sustained export-led growth would also help, underpinned by a greater ability of Irish firms to successfully compete in foreign markets. This chapter discusses these structural reforms to tackle high and persistent unemployment, hence minimising its social costs, and policies to improve competitiveness further, thus helping to preserve and enhance Ireland's attractiveness as a dynamic place to do business.

## Preventing a permanent increase in structural unemployment

### *The crisis has hit hard labour-intensive sectors and the least qualified*

The recession has had a severe impact on the labour market (Figure 3.2). The challenge facing the authorities is to avoid this rise of unemployment from becoming persistent. Ireland's unemployment rate stands among the highest in the OECD, and over half of the jobless have been unemployed for more than 12 months. The construction sector has accounted for more than half of the total job losses, having shed more than half of its 2007 workforce. Large losses in employment have also occurred in manufacturing, with traditional sectors such as those supplying construction materials hit hardest, and in labour-intensive services, like trade, hotels and restaurants. As a result, though

Figure 3.2. **Labour market indicators**




1. Persons aged 15 years and over in employment, seasonally adjusted.
2. ILO unemployment rates, seasonally adjusted.

*Source:* Central Statistics Office (CSO).

StatLink http://dx.doi.org/10.1787/888932527452

unemployment numbers have soared for all age groups and levels of educational attainment, most newly unemployed people are young workers – especially males – with low or intermediate qualifications. Those under 35 without tertiary education accounted for 42% of total unemployment at the end of 2010 (Table 3.1), against 23% of the total labour force. Unemployment spells also tend to be longer for the less qualified: in the fourth quarter of 2010, the share of long-term unemployment among the jobless with no tertiary qualifications reached 55% (38% among jobseekers with tertiary attainment).

Table 3.1. **Unemployment rates by age cohort and level of educational attainment**

| | 2010 Q4 | | | | | |
|---|---|---|---|---|---|---|
| | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | Total 15-64 |
| **Primary or below** | | | | | | |
| Unemployment rate | 50.0 | 42.1 | 31.8 | 19.0 | 14.0 | **21.9** |
| % of total unemployment | 0.7 | 1.5 | 2.1 | 2.4 | 2.5 | **9.2** |
| **Lower secondary** | | | | | | |
| Unemployment rate | 48.4 | 38.4 | 23.3 | 14.4 | 10.7 | **23.9** |
| % of total unemployment | 5.0 | 5.9 | 5.2 | 3.8 | 1.7 | **21.4** |
| **Higher secondary** | | | | | | |
| Unemployment rate | 26.8 | 17.0 | 13.0 | 8.0 | 6.8 | **15.2** |
| % of total unemployment | 9.5 | 8.6 | 5.3 | 3.0 | 1.2 | **27.6** |
| **Post leaving cert** | | | | | | |
| Unemployment rate | 34.2 | 22.0 | 15.8 | 14.2 | 13.5 | **19.0** |
| % of total unemployment | 2.6 | 6.2 | 3.4 | 2.4 | 1.2 | **15.7** |
| **Third level non-honours degree** | | | | | | |
| Unemployment rate | 18.6 | 11.1 | 9.5 | 7.1 | 4.7 | **9.7** |
| % of total unemployment | 1.2 | 4.3 | 3.2 | 1.6 | 0.4 | **10.7** |
| **Third level honours degree or above** | | | | | | |
| Unemployment rate | 18.0 | 6.9 | 5.9 | 4.8 | 5.2 | **6.8** |
| % of total unemployment | 2.0 | 4.6 | 2.8 | 1.4 | 0.7 | **11.6** |
| **Other** | | | | | | |
| Unemployment rate | 22.2 | 19.3 | 17.6 | 16.7 | [1] | **17.4** |
| % of total unemployment | 0.3 | 1.8 | 1.0 | 0.5 | [1] | **3.7** |
| **Total** | | | | | | |
| Unemployment rate | 28.8 | 15.4 | 12.9 | 10.1 | 9.4 | **14.3** |
| % of total unemployment | 21.3 | 32.9 | 23.0 | 15.0 | 7.9 | **100.0** |

1. Indicates that data are not available due to small size of cohort.
*Source:* CSO Quarterly National Household Survey.

The severe deterioration of the labour market could result in a persistent problem of under-employment, as experienced by Ireland between the mid-1970s to the mid-1990s, thus posing a threat to social cohesion. When measured before all social transfers, Irish poverty rates (relative to a 60% of median income threshold) rose the most in the EU (6 percentage points) during 2007-09, reaching 46%. Social transfers contained the problem in those years, with poverty rates after transfers continuing the decline started earlier in the decade. However, fighting poverty through welfare benefits alone places a heavy burden on public finances and fosters long term dependence on social transfers, which causes poverty persistence (Department of Social Protection, 2010) and reduces labour supply and potential growth. Tackling unemployment clearly offers a better chance of both reducing poverty and supporting economic recovery. A full-time job in Ireland is a highly effective defence against poverty, with a corresponding poverty rate of 4.2% in 2009, against 7.1% for the EU average.

### *Ireland needs an integrated strategy to reduce unemployment*

Ireland needs a coherent and integrated plan, underpinned by a broad consensus among social partners, to foster the return to work of the jobless and thus stave off rising social exclusion. The three pillars of this strategy are: *i)* welfare reform; *ii)* better active labour market policies; and *iii)* further reduction in unit labour costs. Welfare reform is needed to avoid unemployment and inactivity traps and to encourage more active job search. Better active labour market programmes (ALMPs) will contribute to this goal, and should play an essential role in re-skilling unemployed workers to new sectors, thus facilitating labour reallocation. Further reduction in unit labour costs, which requires productivity-enhancing reforms as well as medium-term wage restraint, is discussed in a later section of this chapter.

### *Welfare benefits entail substantial work disincentives*

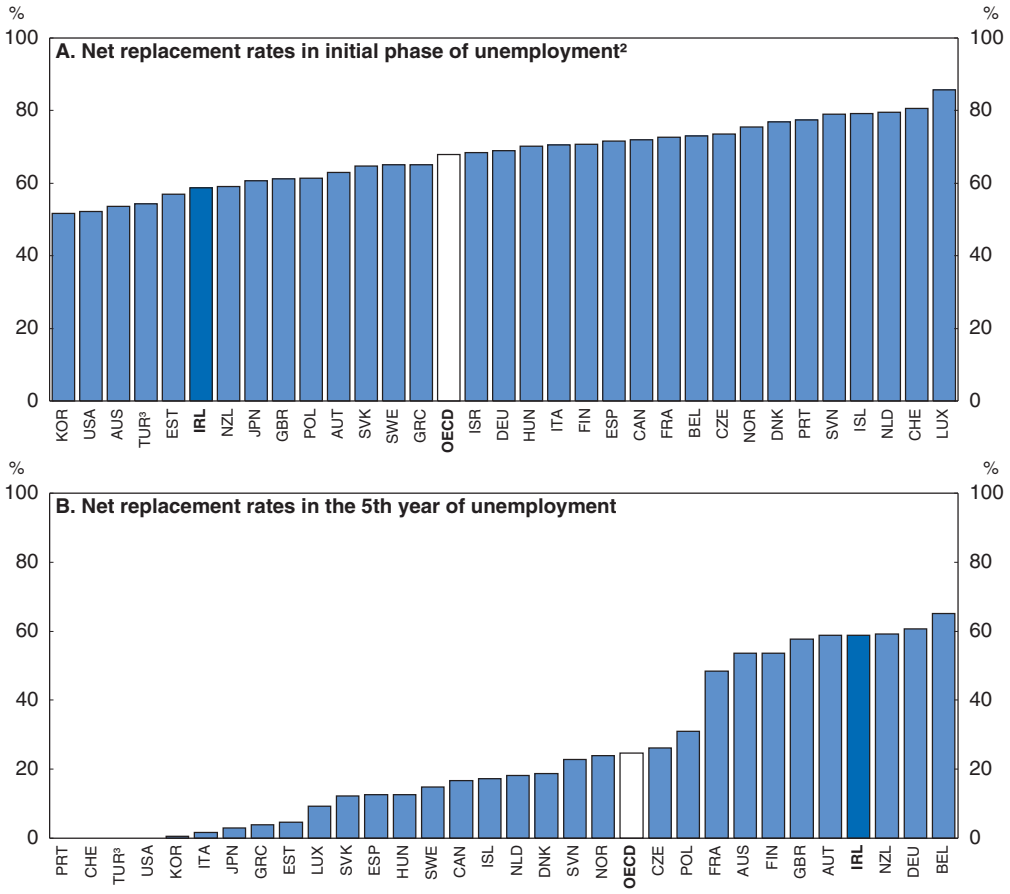
After very substantial increases up to 2009, long term unemployment benefit replacement rates in Ireland stand among the highest in the OECD. Unemployment benefits comprise Jobseeker's Benefit (JB), payable for a maximum of 12 months to those having made enough social security contributions, and Jobseeker's Allowance (JA), a means-tested benefit paid to the unemployed who either do not qualify for JB or have exhausted their JB entitlement. The level of income replacement upon becoming unemployed is below average (Figure 3.3), which may have a negative impact on the quality of job matching. Further, the design of unemployment benefits implies stronger disincentive effects for low-skill workers and the long-term unemployed, thus adding to the risk of entrenching high structural unemployment. The flat-rate nature of both benefits entails higher net replacement rates (NRRs) for low wage levels. Moreover, the unlimited duration of the JA prevents NRRs from falling over time, as is often the case in other countries. As a result, NRRs after a long unemployment spell become very high in international comparison (Figure 3.3).

Ireland also stands out internationally due to its very high number of unemployment benefit recipients (Figure 3.4), far above the number of unemployed according to the standard ILO (International Labour Office) definition used in labour force surveys (people without work, available for work and taking steps to find a job). Besides being costly, this can add to work disincentive effects through two channels. First, close to one fifth of recipients have casual or part-time jobs, being allowed to work up to three days a week and enjoying generous work income disregards in the determination of benefit amounts. Though these arrangements provide strong incentives for jobseekers to take up part-time jobs, this is probably outweighed by the high marginal effective tax rates often faced by part-time workers when moving to a full-time job and thus losing benefit eligibility. Second, the surplus of benefit recipients over labour force survey unemployment also reflects a weak enforcement of job search requirements (Grubb *et al.*, 2009), as discussed below.

Welfare benefits received in addition to JB or JA (sometimes known in Ireland as secondary benefits) further worsen disincentive effects. A case in point is the Rent Supplement, a means-tested support currently paid to around 10% of unemployment benefit recipients, to assist them towards the cost of renting from a private landlord. Under a stylised set of assumptions, Rent Supplement increases the Irish average NRR over a five-year unemployment spell from 59% to 79%. While this figure may be overstated in some cases (for instance, it does not take into account that since June 2007 the long-term

Figure 3.3. **Net replacement rates in unemployment, 2009**

For four family types and two earnings levels, in per cent[1]




1. Unweighted averages, for earnings levels of 67% and 100% of Average Worker. Family types are: single person with no children, one-earner married couple with no children, lone parent with two children and one-earner married couple with two children. No social assistance 'top-ups' are assumed to be available in either the in-work or out-of-work situation. Any income taxes payable on unemployment benefits are determined in relation to annualised benefit values (*i.e.* monthly values multiplied by 12) even if the maximum benefit duration is shorter than 12 months. For married couples the percentage of AW relates to one spouse only; the second spouse is assumed to be 'inactive' with no earnings. Children are aged four and six and neither childcare benefits nor childcare costs are considered.
2. Initial phase of unemployment but following any waiting period.
3. Calculations are based on Average Production Worker (ISIC D).

*Source:* OECD, *Tax-Benefit Models*.

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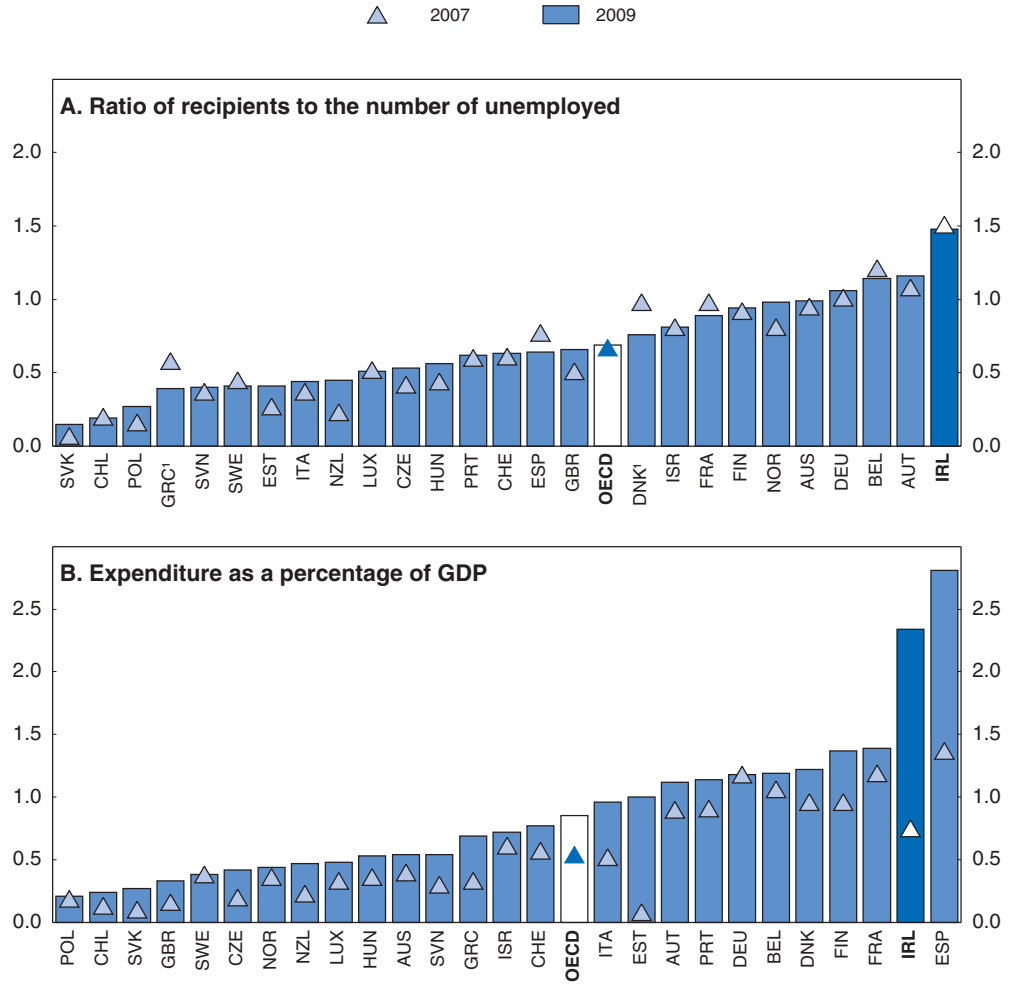
unemployed returning to full-time work may remain eligible for Rent Supplement), it is understated in others (maximum rent allowance for Dublin generates NRRs in excess of 100% at low wage levels – Forfás, 2010a). After receiving JA for 15 months, many unemployed also become entitled to Fuel Allowance (another means-tested secondary benefit), which makes replacement rates increase throughout the unemployment spell by up to 4 percentage points. Overall, 15% to 20% of unemployment benefit recipients are likely to face replacement rates above 70% (Forfás, 2010a).

Figure 3.4. **Unemployment benefits: recipients and expenditure**




1. Denmark: 2007-2008 and Greece: 2008-2009.
*Source:* OECD, *OECD Employment Outlook 2011*.

StatLink http://dx.doi.org/10.1787/888932527490

### *Wide-ranging welfare reform is needed*

Over the past two years, the authorities have taken some steps to mitigate such work disincentives. Several welfare rates, including those for unemployment, were reduced by around 4% in 2010, and by a further 4% in 2011. Reduced JA rates were introduced in 2009 for 18 and 19 year-olds, and their scope expanded in 2010 to those aged 20 to 24 (except in certain circumstances, like young parents). While potentially having a major impact on the NRRs of unemployed youths, these measures are estimated to have reduced replacement rates for prime-age workers by only 1 or 2 percentage points in 2010, partly because wages also fell somewhat in that year. Impacts on replacement rates in 2011 should turn out even smaller (or, in some cases, NRR may even increase marginally, as estimated by the Department of Finance, 2011a), due to an increase in personal income tax. Further, due to negative or subdued inflation, 2011 unemployment benefits in real terms for prime-age workers are still marginally above 2007 levels.[1] More fundamentally, those benefit cuts have not addressed one of the welfare system's main shortcomings, notably time-invariant

replacement rates. These imply that, as time passes, the gains from unemployment benefits in terms of better job matching start to be outweighed by financial disincentive effects. The authorities should therefore reduce benefit rates with unemployment duration. For part-time workers, work income disregards in the determination of benefits should be made less generous.

A review of other welfare benefits is also essential to make Irish social protection more coherent, less distorting and simpler to administer. Safety-net payments (basic supplementary welfare allowance) should be reformed in tandem with unemployment benefits, so as to ensure that the former never exceed the value of the latter. As for housing benefits, the authorities should implement plans to transfer households from rent supplement to other social housing models, such as the Rental Accommodation Scheme (RAS). Under the latter (which involves a three-way relationship between landlord, tenant, and a local authority), a full-time job (30 or more hours per week) does not in general determine loss of eligibility, as is the case in rent supplement, but rather a larger household contribution towards the total cost of rent. In this context, the current RAS eligibility requirement of an 18-month period of rent supplement receipt should be reconsidered. Fuel allowance should also be redesigned to avoid increasing replacement rates for the long-term unemployed. More generally, the authorities should assess the scope for moving towards a single working-age social assistance payment (Department of Social Protection, 2010). Apart from lower administrative costs, this would enable a broader application of activation requirements and an integrated management of marginal effective tax rates and ensuing work incentives. It could also yield equity gains by increasing take-up rates among poor households.

### *Job search assistance has been ineffective*

Job search assistance and monitoring is generally found to be a cost-effective form of ALMP (Card *et al.*, 2010), as it increases the efficiency of jobs matching and hence leads to higher outflows from joblessness. However, Irish performance on this count has been deeply unsatisfactory. Under the National Employment Action Plan (NEAP), since October 2006 all unemployed individuals are to be referred by the Department of Social Protection (DSP, responsible for welfare benefits) to the Training and Employment Authority (FÁS, the Irish public employment service) for activation measures after 3 months of unemployment benefits. An exception is if they had already been referred during a previous unemployment spell, a provision found to affect a quarter of benefit recipients (McGuinness *et al.*, 2011), thus depriving some of those in most need of support. Around 25% of those eligible for NEAP assistance were never referred to FÁS for an activation interview, probably due to a mix of co-ordination failures and capacity constraints. However, since interviews were found to have a *negative* impact on the chances of entering employment, those not referred could be – paradoxically – better off in the end, probably due to more intense job search on their own. These findings, referring to a period of relatively low unemployment (September 2006 to July 2008), run counter to the benign view of previous NEAP evaluation studies,[2] and lend support to the more critical stance of Grubb *et al.* (2009), who point out a rather low level of interaction with the unemployed, sometimes limited to the referral interview itself. They also argue that more needs to be done as regards liaising with employers: limited use is made of direct referrals to vacancies, and firms notifying those vacancies are often never contacted by FÁS.

These shortcomings stem from a lack of resources for guidance and job search assistance, but also from a host of organizational inefficiencies and from the absence of systematic monitoring and sanctions to ensure adequate co-operation by the unemployed. Partly due to non-integrated IT systems, DSP and FÁS have faced major co-ordination problems, manifest both in the failure to provide NEAP assistance to a quarter of those eligible and in cases of effort duplication (for instance, referral to FÁS of jobseekers having already self-presented at FÁS offices for support). Targeting and prioritisation are defective, as illustrated by the absence of second referrals to FÁS for those with repeated unemployment spells. Finally, penalties for insufficient job search or lack of co-operation with employment services are generally weak: for instance, sanctions for job resignation, refusal of employment or refusal of an activation place are extremely rare by international standards (Grubb *et al.*, 2009).

There are encouraging signs of reform. Benefit provision and activation are being brought together through the transfer of FÁS' employment and community services to DSP (due to be completed by January 2012), giving rise to the creation of a National Employment and Entitlements Service. Integration of hitherto separated IT systems is also proceeding. Another two recent efficiency-enhancing steps are the implementation by DSP of a profiling system for the unemployed and resort to DSP-FÁS group engagement sessions as an initial referral tool, both of which are to be deployed nationwide by the end of 2012. Group engagement focuses on providing information about available supports to groups of around 20 job seekers, which helps to make subsequent one-to-one meetings more productive. Profiling is conducive to a more targeted use of resources by allowing early intervention on those new benefit claimants with a higher probability of becoming long-term unemployed. Further, since April 2011 benefit rates can be cut by almost a quarter for refusal to engage in job search or in activation programmes. The authorities should continue to roll out these measures, enforce sanctions and closely monitor results. They should also ensure that FÁS and DSP microstructures are merged rather than merely juxtaposed. Organizational redesign should be extended to other relevant agencies. For instance, currently both DSP Facilitators and Local Employment Services are to provide support to the most disadvantaged job seekers, which does not seem an optimal arrangement. As resources allow, more systematic interaction with employers posting job vacancies should be sought.

### *Training programmes need to foster labour reallocation across sectors*

Irish activation policy has traditionally placed a strong emphasis on training programmes, which in the current context are essential to re-skill and upskill the unemployed into new jobs. Training courses closer to the labour market and providing occupational-specific training (such as the Specific Skills Training and the Traineeship programmes) have been found generally effective, though somewhat restrictive in the scope of occupations covered. Programmes geared at the most disadvantaged and mainly aiming at progression to further education or training (like the Bridging Foundation Programme or Local Training Initiatives) often have over-qualified participants (Forfás, 2010b), and thus low cost-efficiency. The response to the crisis has largely relied on scaling up and further diversifying training and work experience offers (Table 3.2), which is appropriate given the lower expected payoff from job search in a recession. However, short courses, which were expanded the most, will not suffice to retrain former construction workers.

Table 3.2. **Spending on active labour market programmes**

As a percentage of GDP

| | Ireland | | Nordic countries | | Other OECD Europe | | OECD non-Europe | |
|---|---|---|---|---|---|---|---|---|
| | 2007 | 2009 | 2007 | 2009 | 2007 | 2009 | 2007 | 2009 |
| Public employment service and administration | 0.12 | 0.18 | 0.20 | 0.30 | 0.15 | 0.17 | 0.07 | 0.07 |
| Training | 0.26 | 0.37 | 0.28 | 0.26 | 0.14 | 0.22 | 0.06 | 0.09 |
| Direct job creation | 0.21 | 0.26 | 0.03 | 0.03 | 0.07 | 0.08 | 0.01 | 0.05 |
| Other active measures | 0.05 | 0.06 | 0.43 | 0.46 | 0.19 | 0.23 | 0.04 | 0.07 |
| Active measures (total) | 0.64 | 0.87 | 0.96 | 1.06 | 0.56 | 0.70 | 0.19 | 0.28 |
| *Memo: Unemployment rate* | 4.57 | 11.74 | 4.79 | 6.40 | 6.52 | 8.38 | 4.88 | 6.87 |

*Source:* OECD, *OECD Employment Outlook 2011*.

Programmes should be focused on re-skilling and upskilling the jobless for employment in new sectors, taking account of both labour needs and of participants' background. For those unemployed who are qualified enough to immediately take advantage of the kind of training that tends to work best (long duration programmes providing advanced specific skills), it is important that courses match skills and labour shortages. Though at present most of these require third-level qualifications, opportunities exist which do not in areas as diverse as online sales and marketing, energy efficiency or technicians for lean manufacturing or the life sciences (Forfás, 2010c). Progression of craft workers to full-time or part-time higher education may also be a valuable route for upskilling, and opportunities for this have been increased by formal recognition of craft qualifications. However, many jobseekers have only modest qualifications (see Table 3.1) and, despite being relatively young (in their 20s or 30s), have been away from education for a long time. Prior to courses aimed at immediate employability, they may require general skills training to close gaps in areas like language and math ability.

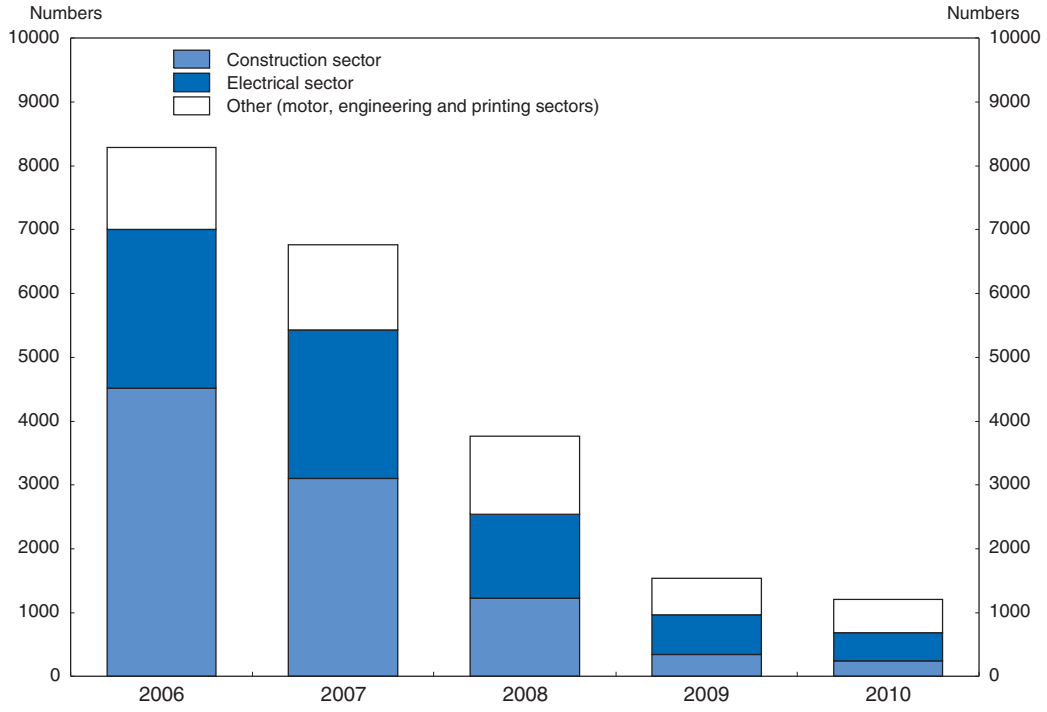
The institutional setup of training provision also has room for improvement. The fact that FÁS has both run the PES and provided training has arguably reduced incentives for cost-efficiency and labour market responsiveness of the training portfolio. The matching of training to participants' background may have suffered as well, as employment officers might be reluctant to make a unilateral and compulsory referral to the best-suited training programme if that implies imposing an unwilling trainee on a colleague (Grubb *et al.*, 2009). The ongoing integration of PES into DSP, hence making placement separate from training, should be taken advantage of to evolve towards greater contestability in training provision, with DSP (through the new National Employment and Entitlements Service) referring jobseekers – when appropriate – to the most suitable training programmes, which could be supplied by public or private providers (McGuinness *et al.*, 2011). There is scope for the new further education and training authority, SOLAS, which the government has recently announced will replace FÁS, to play a useful role in this regard. SOLAS will be mandated to work closely with the National Employment and Entitlements Service so as to enhance the integrated delivery of welfare and training supports. It is also welcome that SOLAS will bring training and vocational or further education, hitherto two separate strands, under one single authority.

Work experience opportunities are particularly important for facilitating the entry of youth into employment (OECD, 2009a), and can be provided by well-designed vocational education and training programmes. Vocational training in Ireland largely relies on the apprenticeship system, by far the country's biggest training programme (see below).

Vocational education is offered at post-secondary level through a number of programmes, the largest of which – with close to 40 000 enrolments, significantly in excess of the sanctioned 30 000 places – are Post Leaving Certificate (PLC) courses. These are full-time programmes, offered in over 60 disciplines and lasting for one or two years, and have been expanded in response to the crisis. However, their effectiveness is hampered by the very limited amount of workplace training provided, generally as short as 3 weeks per year (Kis, 2010). Workplace training periods should therefore be extended.

Though workplace training is abundant in apprenticeships, these have become overly concentrated on the construction sector as employers expanded apprentice recruitment. Apprentices, hired by firms, follow a sequence of seven on-the-job and off-the-job alternating phases, generally lasting for four years (Kis, 2010). Despite its clear structure and strong ownership by the social partners, the system offers training in mostly traditional, male-dominated trades which were hit hard by the crisis; as a result, new apprentice registrations have plunged (Figure 3.5). Further, costs are high in international comparison, due *inter alia* to the payment by FÁS of an apprentice allowance in all three off-the-job phases, which also tend to require expensive equipment for hands-on practice (Kis, 2010). The crisis has also given rise to a growing problem of redundant apprentices, to which authorities have responded with a number of arrangements aiming at training completion – for instance, subsidising employers who engage redundant apprentices to complete on-the-job phases. While completion can be a laudable aim in some cases, it is definitely not so for apprentices in the early phases of construction trades, as it hinders labour reallocation in the economy.[3] The authorities should therefore stop subsidising

Figure 3.5. **New apprentice registrations**




*Source: Review of Labour Market Programmes*, February 2010, Forfàs and Training & Employment Authority (FÁS).

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completion for those apprentices (while ensuring that alternative training or further education offers are available) and temporarily close the system to new registrations in the construction sector.[4] More generally, there is a case for enlarging the set of trades covered and for making programme duration more flexible across trades and possibly individuals (who may learn at different speeds). Costs should also be cut by reviewing allowances and the balance of job-specific training between on-the-job and off-the-job phases. The question of a review of apprenticeship training is currently under consideration.

### *Job creation schemes should be used as a last resort activation tool*

Irish spending on ALMPs is heavily tilted towards job creation schemes (see Table 3.2), which have so far remained essentially unreformed despite ample evidence of their ineffectiveness as an activation tool. The Community Employment (CE) scheme gave part-time occupation in the provision of non-market services for local communities to over 23 000 people (more than 1% of the labour force) at end-2010. It accounted for 27% of total spending on ALMPs in 2009. Participants tend to have a record of long-term unemployment or inactivity and low education, and roughly half are in receipt of either lone-parent or disability benefits, which can largely be retained while receiving the CE wage (Grubb *et al.*, 2009; Forfás, 2010b). After long participation spells (3 years on average, more for older workers), the outcome of exiting CE is often a return to long-term unemployment, with no discernible employability gains (Forfás, 2010b; McGuinness *et al.*, 2011). Similar problems – if anything, magnified – are found in the Job Initiative (JI) programme, which employs around 1 300 full-time workers: very low numbers exit JI for regular employment, probably because people can remain in the scheme until retirement (Forfás, 2010b). Despite these shortcomings, additional CE places were created during the crisis. Further, the authorities are rolling out a new programme, Tús (Community Work Placement Initiative), aiming to create 5 000 part-time jobs over the course of 2011: it shares CE's focus on the delivery of local services, though with a 12-month participation limit and targeting only long-term job seekers receiving unemployment benefit (and not lone-parent or disability benefit).

The authorities should use job creation schemes as a last-resort activation policy. Participation periods should be shortened: Tús' 12-month limit should be strictly enforced and extended to CE (with possible exceptions here confined to workers with severe impediments to employment). Consideration should be given to making JI a part-time scheme, which could merge into CE. As for financial incentives, indexing the CE wage (currently about 10% bigger than JA) to the proposed time-decreasing profile of unemployment benefits should help to tackle the high marginal effective tax rates for certain groups of participants, like lone parents. To strengthen capabilities for progression into regular employment, the schemes' training and educational content should be further developed and tailored to address the literacy/numeracy handicaps of the most disadvantaged participants.

A final note on activation policies concerns the pervasive paucity of performance evaluations. This stems from both a lack of appropriate data and a loss of evaluation expertise within government departments as reliance on EU structural funds declined (Grubb *et al.*, 2009). The ongoing integration of FÁS and DSP IT systems should be taken advantage of to ensure availability of datasets for formal assessment exercises. In turn, these should feed into periodic programme reviews, giving rise, if needed, to policy adjustments across the whole panorama of training and further education.

### *Tax wedge reductions could favour employment of the low skilled*

Under the recent Jobs Initiative (Box 3.1), the authorities have decided to temporarily halve the 8.5% rate of employers' social security contributions on weekly wages up to EUR 356, which should favour employment of the low skilled and boost the cost competitiveness of hotels and restaurants. This tax wedge reduction is far more broad-based than previous job subsidies, such as those under the Employer Job Incentive Scheme, which required new net hiring and additional eligibility requirements (mainly targeting people who had been unemployed for at least 6 months). As a consequence, it will involve higher deadweight losses, but will also be easier to monitor and administer, and is less likely to be hampered by a relatively inelastic demand for vulnerable labour market groups (Immervoll and Pearson, 2009). The tax wedge reduction should not be withdrawn by end-2013, as scheduled, but rather stay in force longer. The authorities should reconsider its design (smoothing the discontinuity at EUR 356, beyond which a higher rate applies to the full amount of wages, to avoid distorting the wage distribution) and ensure that compensating budget measures are in place so as not to endanger fiscal consolidation targets.

#### Box 3.1. **The 2011 Jobs Initiative**

The Irish government announced in May 2011 a package of measures aimed at employment generation. The Initiative is intended to be budgetary neutral, expenditure being financed through a pension funds levy of 0.6% on the market value of assets, to be in force during 4 years. The main measures are:

- A reduction from 8.5% to 4.25% in the rate of employers' social security contributions (Pay Related Social Insurance, PRSI) payable on weekly wages up to EUR 356 (5.5% above the national minimum wage), to stay in force from 1 July 2011 to end-2013. For the full amount of weekly wages above EUR 356, a rate of 10.75% continues to apply.
- The creation of a second reduced rate of VAT at 9% to apply from 1 July 2011 to end-2013 mainly to tourism-related services (like restaurants, hotels and entertainment activities), as well as hairdressing and publications. These goods and services formerly attracted VAT at 13.5%.
- An additional 20 900 activation places, with an emphasis on training for the unemployed in need of re-skilling to new sectors, adults returning to education and work experience placements.
- Some reallocation of capital expenditure towards smaller and more employment intensive projects, such as investment in schools, local and regional roads and retrofitting (energy efficiency).

The authorities have also committed to reform sectoral wage agreements (EROs and REAs, addressed below in this chapter) and to introduce targeted initiatives to facilitate the provision of credit for SMEs, including a temporary, partial credit guarantee scheme.

### *VAT cuts in labour-intensive sectors have limited effectiveness*

The merits of the VAT reduction to support tourism, also part of the Jobs Initiative, are controversial. It is an expensive measure (EUR 350 million per year, roughly half of the Jobs Initiative total costs), entailing increased tax administration and compliance efforts, some regressive impact on income distribution, and targeting tourism in an imperfect way (the

non-tourist domestic demand component is large for restaurants and virtually 100% for hairdressing). The case for reducing VAT rates in low-skill sectors as a way to boost demand for low-skilled workers is unconvincing, though there is some anecdotal evidence that a similar measure taken in Ireland in 1986 was successful in promoting tourism (Copenhagen Economics, 2007). The authorities should commission an independent review of this measure's effectiveness, notably in terms of net job creation.

Box 3.2. **Summary of recommendations to prevent a permanent increase in structural unemployment**

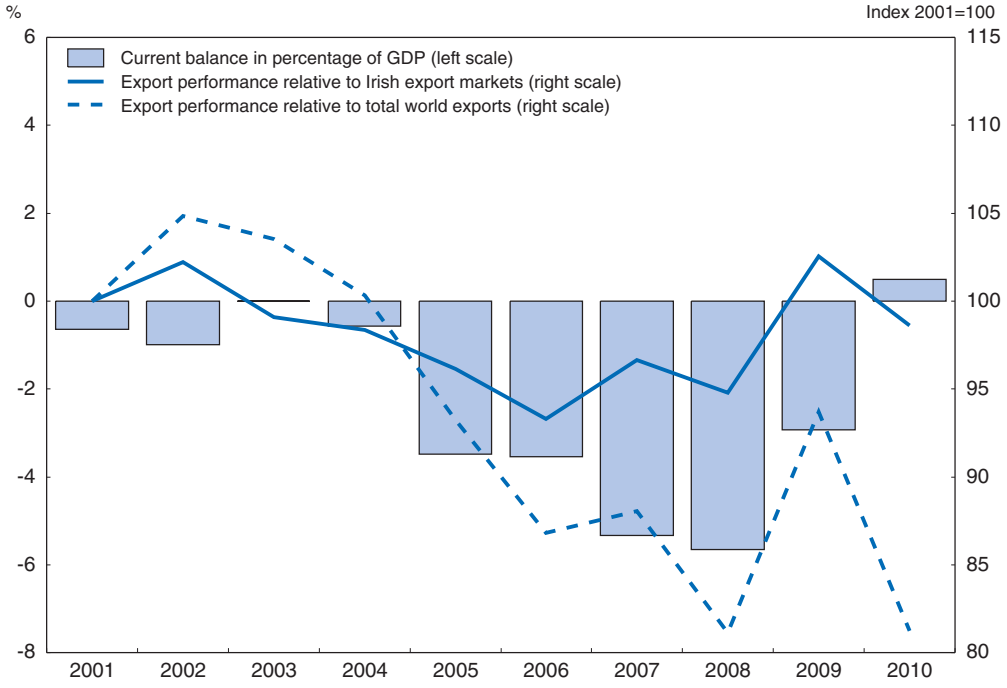
- Decrease unemployment benefits with unemployment duration.
- Review the coherence and work incentive effects of other welfare benefits. Ensure that safety-net payments never exceed the value of the reformed unemployment benefits. To avoid excessive levels of income replacement when out of work and high taper rates when re-entering employment, move away from rent supplement to other forms of housing benefits. Consider moving towards a single working age social assistance payment.
- Continue efforts to increase efficiency in public employment services and engage more actively with job seekers, while enforcing tighter requirements for job search and participation in relevant ALMPs. Make greater use of direct referrals of jobseekers to job vacancies posted by firms.
- Improve the alignment of training programmes with participants' background and labour market skill needs.
- Enlarge the set of trades covered by apprenticeship programmes and temporarily close apprentice admission in construction trades. Make programme duration more flexible across trades.
- Increase workplace training in vocational education programmes.
- Reduce participation periods in job creation schemes, and enable employment officers to impose compulsory participation as a last resort activation measure. Decrease payments to participants in line with the reformed unemployment benefits, and strengthen the schemes' training and educational content.
- Extend the duration of the recent cut in employers' social security contributions (PRSI) for low-wage workers. Budget neutrality should be ensured, possibly by base broadening measures in taxation.
- Promote an independent assessment of the job creation impact of the new VAT reduced rate.

## Restoring competitiveness

### *An export-based recovery is under way*

After the pre-crisis period of domestic demand-fuelled growth, net exports have rebounded and the current account has switched from a sizable deficit to a small surplus (Figure 3.6). This reflects the impact of private demand weakness on imports, but also an improved export performance, with Irish exports outpacing import growth of the main trading partners in 2009-10. Both merchandise and services exports displayed strong resilience in 2009, with sizeable gains in market shares, and robust growth in 2010 (5.6% and 7.1% in volume terms, respectively).

Figure 3.6. **Current account and export performance indicators**[1]




1. Export performance refers to goods and services. Irish export markets are defined with reference to an average of import volume growth in 44 economic partners, weighted according to their importance in Irish exports, and therefore attaching modest weights to emerging markets. Total world exports avoid this problem, but are defined in nominal terms, and hence are affected by price developments (*e.g.* of oil).

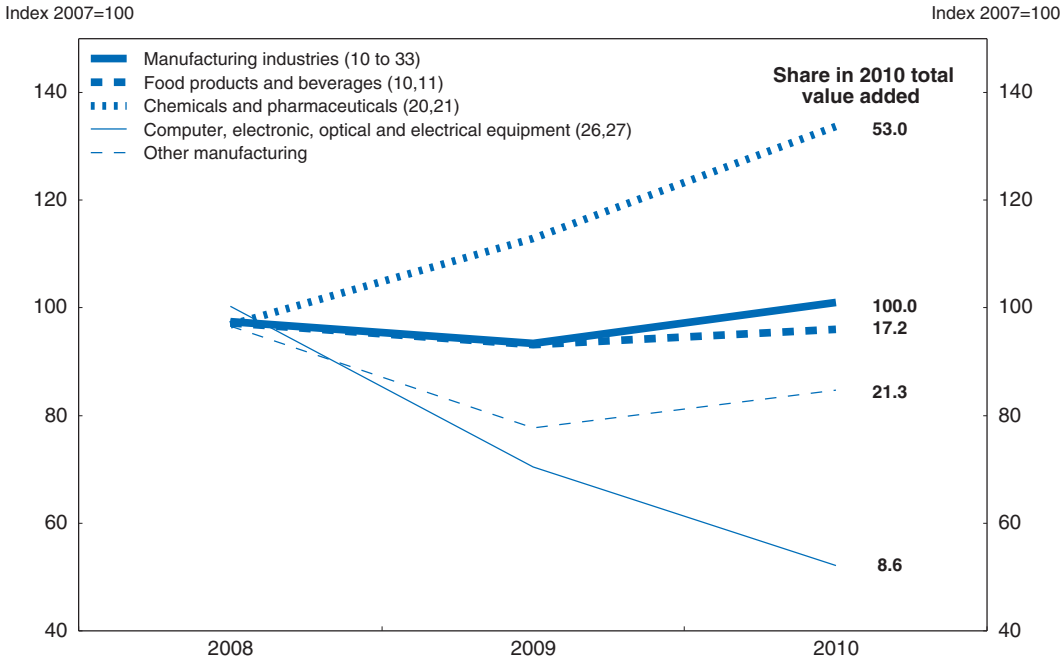
*Source:* European Central Bank (ECB) and *OECD Economic Outlook Database*.

StatLink http://dx.doi.org/10.1787/888932527528

However, the recent recovery in exports has largely relied on high-technology, MNC-dominated sectors, which tend to be among the least employment intensive. In merchandise trade, the contrast between the chemical sector and most other industries has largely mirrored the diverging trends in production volumes (Figure 3.7). Positive developments have been underpinned by pharmaceuticals and other chemicals, which fully account for the 2009 gains in market shares and whose fairly acyclical nature made Irish exports more resilient during the global crisis (Box 3.3). Progress in the largest indigenous exporting sector, food and beverages, has been far less spectacular, with slight losses in market share in 2009, though it has been gathering pace more recently, with strong growth in the first half of 2011. As regards services exports, the strong performance in business and especially computer services has been accompanied by a shrinking tourism and travel sector (Box 3.4), where signs of recovery have only become apparent in the second quarter of 2011.

Further, in both goods and services, export performance has also continued to suffer from a lack of significant penetration in fast-growing emerging markets. Over the past two years, despite recording gains in most of their main destinations (mature markets such as the UK, the US or Belgium), Irish exports have barely kept pace with world trade as a whole (Boxes 3.3 and 3.4 and Figure 3.6).

Figure 3.7. **Industrial production index,[1] 2007 = 100**




*Note:* The 2010 value added is estimated by applying industrial production index changes to the 2005 value added figures.
1. NACE sector, Rev. 2.
*Source:* Central Statistics Office (CSO).

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## Box 3.3. **Irish merchandise export performance: a constant market share analysis***

To shed further light on the merchandise export performance of Ireland, a constant market share analysis (CMSA) is carried out along the lines of Amador and Cabral (2008). Beyond gains or losses in market shares, CMSA quantifies to what extent the export structure of a country, as regards both product and geographical dimensions, affects its overall export performance. The latter, here defined as the difference between the growth rates of Irish exports (g) and of world exports (g*), is therefore decomposed into *i)* a market share effect (MSE), which aggregates the variation of shares in individual export markets (product i to destination j, *e.g.* pharmaceuticals to France) and *ii)* a combined structure effect, itself subsuming *a)* a product structure effect (PSE) and *b)* a geographical structure effect (GSE), as well as *c)* a residual term (mixed structure effect, MIX). Formally:

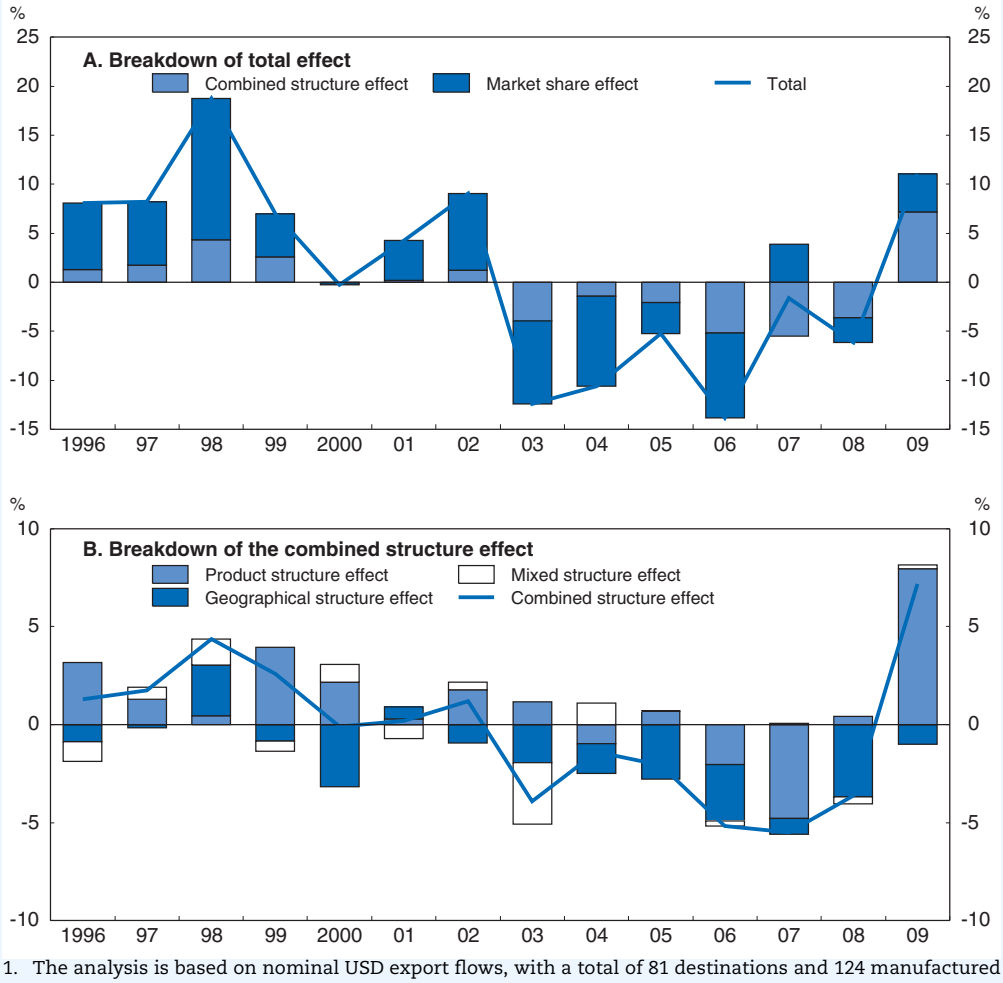
$$g - g^* = MSE + PSE + GSE + MIX$$

The PSE and GSE terms will be positive if a country has above-average specialization in markets (defined in terms of products and of destinations, respectively) which grow faster than overall world merchandise trade. Conversely, high specialisation in slow-growing markets gives rise to negative structure effects. Due to data limitations, the CMSA is based on nominal export flows, rather than export volumes. Energy-related items are excluded, since their volatile prices could distort results. Annex 3.A1 provides further details on the methodology and results, which are summarised below.

## Box 3.3. **Irish merchandise export performance: a constant market share analysis*** *(cont.)*

Except for the recent past, gains or losses of share in individual markets have been the main driving force behind Irish overall export performance. From the mid-1990s to 2002, the prevalence of above-average Irish export growth was accompanied by positive and sizeable MSE terms (Figure 3.8). By the same token, the 2003-08 period witnessed Irish exports lagging behind world exports and mostly negative contributions from MSE. Both the 1996-2002 gains and the 2003-08 losses were essentially spread across the main markets and products for Irish exports (Figure 3.9). The UK, the USA and Belgium-Luxembourg tended to account for the largest contributions (first positive, and then negative). As for products, pharmaceuticals, computer and communications equipment and other chemicals led the gains in the former period and – other chemicals excluded – the losses in the latter. In 2009, strong market share gains in pharmaceuticals and other chemicals have largely outweighed further losses in computer equipment and in traditional sectors, yielding a positive MSE.

### Figure 3.8. **Main results of the constant market share analysis**[1]




1. The analysis is based on nominal USD export flows, with a total of 81 destinations and 124 manufactured products. These correspond to the 4-digit level of the International Standard Industrial Classification (ISIC, rev. 3) excluding energy-related items (code 23).

*Source:* OECD, *ITCS Database* and Secretariat calculations.

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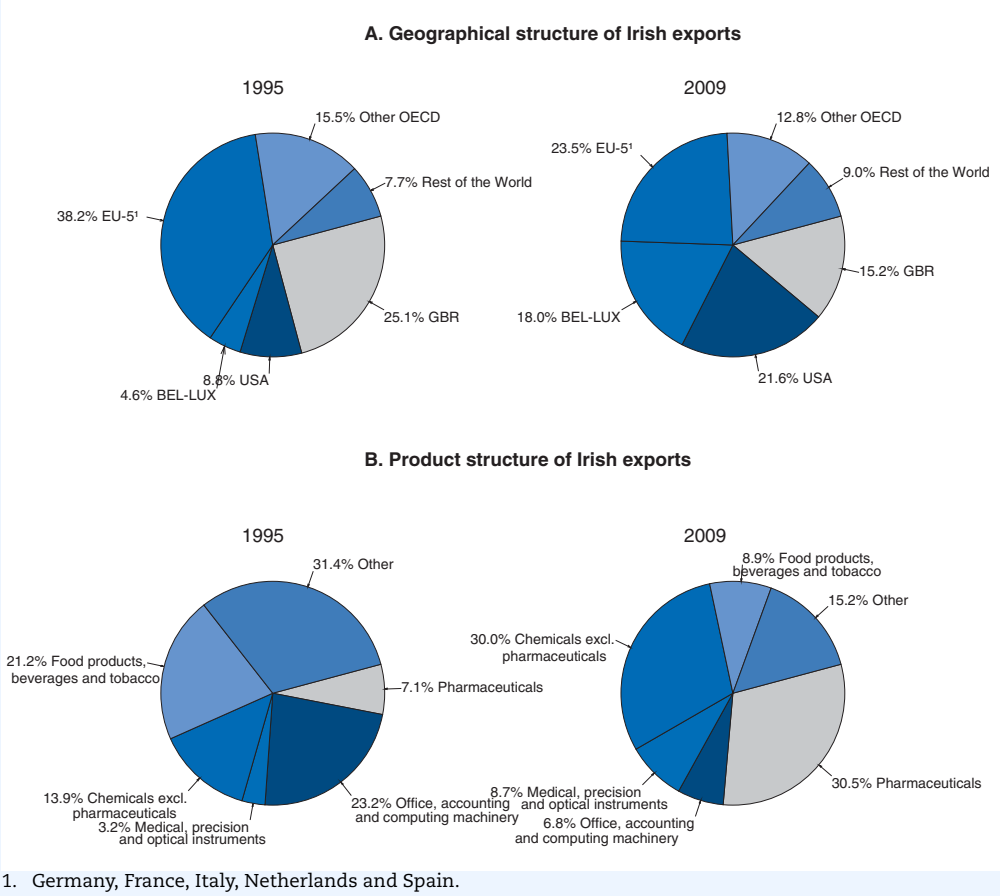
## Box 3.3. **Irish merchandise export performance: a constant market share analysis*** *(cont.)*

### Figure 3.9. **Structure of Irish exports**

Nominal, manufacturing excluding energy




1. Germany, France, Italy, Netherlands and Spain.

*Source:* OECD, *ITCS Database* and Secretariat calculations.

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Structure effects have been accounting for a growing part of overall export performance, and took centre stage in 2009. Geographical effects have tended to play against Ireland, due to its high dependence on mature destination markets, and to become gradually more negative, as emerging markets have gained prominence in world trade. Product effects have been more nuanced, yielding positive contributions until 2003 and turning negative in some of the following years. Strong market growth for high-technology items, which make up roughly half of Ireland's exports, accounts for most of the positive PSE in the 1996-2002 period. Over the past decade, however, the marked slowdown in the world market for computing machinery helped to drive total PSE to lower values, sometimes even negative. In 2009, the relatively acyclical nature of demand for pharmaceuticals and medical instruments helped Irish exports weather the world trade slump, and under-specialization in volatile sectors such as cars also contributed to a large positive PSE term. Though data for 2010 are not yet available at the time of writing, it is likely that similar cyclical reasons have generated a large negative PSE and helped explain below-average growth of Irish exports.

* The data on which the analysis relies have been extracted in March 2011.

### Box 3.4. **Irish international trade in services**

Services account for an increasing share of Irish total exports (47% in 2010, against 22% in 2000). In the run-up to the crisis, services exports, unlike their merchandise counterparts, made further gains in global market shares, due to sky-rocketing growth in business and computer services, and, to a lesser extent, in insurance and financial services. The growing reclassification of software sales from goods to services (as transmission by electronic means replaces physical media) has also played a role in surging services exports.

Irish services exports weathered the 2009 trade contraction well, with sizeable market share gains. In 2010, their growth also outpaced that in the largest European economies. Computer and business services have remained the most dynamic components during the crisis, in sharp contrast with the disappointing performance of labour-intensive tourism and travel (Table 3.3). Financial and insurance services returned to growth in 2010, though at still below-average pace. Despite the emergence of a dynamic indigenous software sector (Barry, 2011), its sales abroad are still dwarfed by those of MNCs. These have also led the mild recovery in finance and insurance and, more generally, dominate exports of services to an even greater extent than in manufacturing (Forfás, 2010d). As in the latter, Ireland mainly sells to mature markets. The European Union absorbs almost 70% of geographically allocated Irish services exports, with the UK alone purchasing 22% (2009 data). In contrast, the whole of Asia accounts for a meagre 9%, and South America for less than 1%.

Table 3.3. **Value of services exports (index 2007 = 100)**

| | 2008 | 2009 | 2010 | Share in 2010 total (%) |
|---|---|---|---|---|
| **Services, total** | **100.0** | **98.8** | **108.6** | **100.0** |
| Transport | 103.5 | 104.7 | 124.0 | 4.9 |
| Tourism and travel | 96.9 | 79.2 | 69.5 | 4.2 |
| Communications | 115.7 | 82.6 | 106.2 | 0.7 |
| Insurance | 92.7 | 83.0 | 88.4 | 10.5 |
| Financial services | 88.6 | 77.9 | 80.3 | 8.1 |
| Computer services | 109.9 | 112.1 | 129.7 | 38.2 |
| Royalties/licences | 117.6 | 140.6 | 196.0 | 2.3 |
| All business services | 97.5 | 101.6 | 108.6 | 30.2 |
| Other services not elsewhere stated | 51.0 | 83.1 | 90.1 | 0.9 |

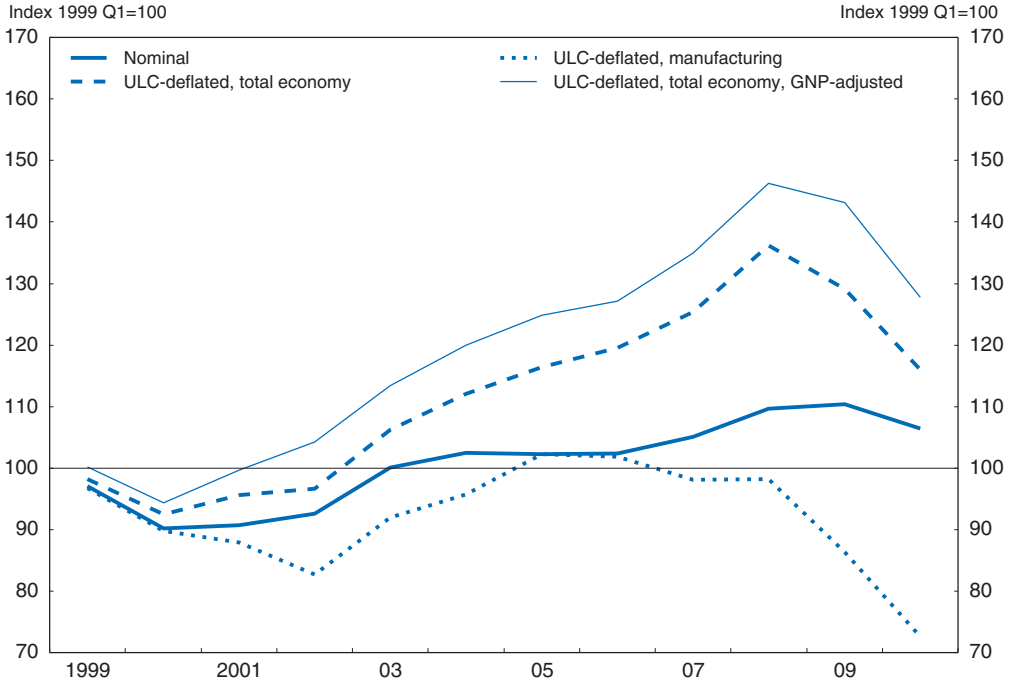
*Source:* Central statistics Office (CSO).

Despite strong export growth, the services balance has always remained in deficit over the past decade. This is mainly due to MNC-related items: most prominently hefty payments of royalties and licences, and also, to a smaller extent, positive net imports of business services, such as advertising, R&D and inter-affiliate management charges. In line with the dominant role of MNC-dominated sectors in the recent export recovery, the services deficit as a percentage of GDP has slightly widened from 2008 to 2010.

### *Cost-competitiveness has improved…*

The Irish economy has made progress in regaining cost competitiveness, which has contributed to the recovery in exports (Figure 3.10). Starting from what probably was a super-competitive position at the turn of the century (O'Brien, 2010), rapid real

Figure 3.10. **Real effective exchange rate indices for Ireland**




*Note:* The nominal and total economy ULC-deflated indices are harmonised competitiveness indicators from the ECB, computed *vis-à-vis* 36 trading partners. The GNP-adjusted measure computes Irish unit labour costs with GNP-based productivity (for the 36 partners GDP-based productivity is used). The manufacturing ULC-deflated index is OECD-computed and considers 48 partners.
*Source:* European Central Bank (ECB) and *OECD Economic Outlook Database*.

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appreciation in 2003-08 coincided with a deteriorating export performance, especially in manufacturing (see Figure 3.8). Relative total economy unit labour costs have since declined, with some help from nominal exchange rates (especially *vis-à-vis* the US dollar and the sterling), but mainly on the back of productivity growth and wage restraint. In 2008-10, Ireland recorded the largest decrease in unit labour costs among euro area countries (a 9% fall, against increases in most countries, Greece and Portugal included), and real depreciation relative to the euro area as a whole came close to that *vis-à-vis* 36 trading partners (Figure 3.10). Wage cuts have gone beyond the public sector, with private firms trimming hours worked and even reducing earnings per hour, especially in those sectors hit hardest by the crisis (Table 3.4). Similar trends in private sector earnings have been observed in the first half of 2011.

### *... but headline progress overstates underlying improvement*

However, sizeable compositional effects (downsizing of building and construction and rapid expansion of the high value-added chemical sector) have made aggregate productivity growth in recent years outpace the underlying productivity gains within each sector. Controlling for those effects makes business sector relative unit labour costs return to the levels recorded around 2005, rather than 2002, as the improvement between 2007 and the first half of 2010 becomes almost three times smaller (O'Brien, 2011a). Using GNP-based (rather than GDP-based) productivity also alleviates the impact of compositional

Table 3.4. **Wage developments during the crisis**

| | Annual percentage changes | | | | | |
|---|---|---|---|---|---|---|
| | 2009 | | | 2010 | | |
| | Hourly earnings | Weekly hours | Weekly earnings | Hourly earnings | Weekly hours | Weekly earnings |
| **All sectors** | **2.5** | **–2.4** | **–0.1** | **–1.5** | **–0.8** | **–2.2** |
| Private sector | 1.0 | –3.2 | –2.2 | –0.1 | –0.9 | –1.0 |
| Public sector | 2.4 | –0.5 | 1.9 | –4.4 | –0.3 | –4.7 |
| Manufacturing (C) | 4.7 | –3.7 | 0.9 | 0.3 | 0.6 | 0.8 |
| Chemicals and electronics[1](19-21, 26-27) | 5.8 | –1.5 | 4.2 | 1.2 | 1.1 | 2.3 |
| Others[1] | 3.7 | –4.5 | –0.9 | 0.2 | 0.3 | 0.5 |
| Construction (F) | 4.2 | –4.7 | –0.7 | –2.3 | –0.6 | –3.0 |
| Trade (G) | –0.4 | –2.3 | –2.7 | 0.8 | –0.2 | 0.5 |
| Restaurants and Hotels (I) | 0.9 | –3.8 | –2.9 | –0.7 | –2.8 | –3.6 |

*Note:* Codes in brackets are NACE rev.2 classifications.
1. Excluding irregular bonuses.
*Source:* EHECS data (CSO) and Secretariat calculations.

effects (since strong growth in the MNC-dominated chemical sector tends to make GDP outpace GNP), and takes the real exchange rate back to 2006 levels (see Figure 3.10).

The impact of sectoral shifts is strongest in manufacturing. While a standard real exchange rate puts the competitiveness of Irish manufacturing at record-high levels (see Figure 3.10), analysis of developments in four individual manufacturing sectors (O'Brien, 2011b) tends to show protracted competitiveness losses until 2009, with a modest reversal taking place as late as 2010 (though earlier in chemicals).[5] In the largest traditional sector, food and beverages, the euro-sterling exchange rate has been a major competitiveness driver.

### *Gaining competitiveness through medium-term wage restraint*

Restoring cost competitiveness is not complete, and requires sustained wage restraint over the medium term, with support from social partners in the framework of the integrated strategy to promote a return to work. It has particular importance for traditional industries, such as food and beverages, which are more labour-intensive than MNC-dominated sectors (O'Brien, 2011b), and whose exports tend to be more price-sensitive. Besides promoting fiscal consolidation, tight control of public sector wage expenditure will also assist in achieving economy-wide labour cost restraint. Further to a political economy demonstration effect, there is evidence of bi-directional causality between public and private wages in Ireland, with interactions taking place via the price level: wage increases in one sector have repercussions on prices, which then feed back on wages in the other sector (Holm-Hadulla *et al.*, 2010).

### *Reforming collective bargaining mechanisms*

In an otherwise decentralised wage bargaining environment, Employment Regulation Orders (EROs) and Registered Employment Agreements (REAs) are sectoral collective bargaining mechanisms estimated to cover around 15% and 8% of private sector employees, respectively (Duffy and Walsh, 2011). Applying in mostly low-skill sectors, such as retail, catering and accommodation, EROs are drawn up by Joint Labour Committees (JLCs), with a government-appointed independent chairman and representatives of

workers and firms. They set sectoral wage floors, on average almost 10% above the national minimum wage (NMW), and regulate a number of other conditions of employment, such as overtime and Sunday pay, with more generous provisions than in the general labour law. REAs are collective agreements registered with the Labour Court, thus becoming legally binding on the individual firm concerned or, in the case of industry agreements (mainly construction and electrical contracting), on all employers and workers in the sector, even those not involved in the agreement negotiation.

EROs and REAs present several elements of rigidity, often failing to take into account firm-level circumstances. Sectoral level bargaining regimes may drive up labour costs and thus induce employment losses (Calmfors and Driffill, 1988). Opting-out from those agreements is hard: firms in covered sectors can deviate from an ERO through an REA, but only if the latter is at least as generous as the former. Furthermore, firms are not allowed to pay lower wage rates on grounds of economic difficulty or the need to protect employment. The absence of standardisation of conditions of employment adds to the record-keeping burden on employers (Duffy and Walsh, 2011).

To address the shortcomings of these bargaining mechanisms, as well as recent legal challenges to EROs (some of the provisions underpinning their enforcement were ruled unconstitutional by the Irish High Court in July 2011), the authorities have announced guidelines for reform. EROs will be retained but made more flexible, by halving their number (from 13 to around 6), drastically reducing the number of different wage rates each JLC can set, standardising Sunday working compensation, and allowing firms to derogate in cases of financial difficulty. Adjustment of REAs will be made easier in certain circumstances, and their record-keeping requirements reduced, as will those of EROs. These steps are welcome, and the authorities should proceed with implementation. Further, to ensure enhanced responsiveness to the prevailing economic and labour market conditions, firms should be allowed to opt-out of EROs and REAs through collective agreement (OECD, 2006). Provided proper worker representation is in place, local-level bargaining can best take account of firm-specific circumstances.

### *Competition in non-tradables*

Besides labour costs, the competitiveness of tradable sectors also depends on the prices of goods and services which are mostly not traded internationally. Transport, property leasing and utilities are important intermediate inputs for industries exposed to international competition, carrying a joint weight in sectoral cost structures which often lies between a quarter and more than half of labour costs (O'Brien, 2011b). Even when not part of sectoral cost structures, non-tradables still have an indirect influence on wages through their impact on the general cost of living. While the latter has recently moderated due to the crisis, property prices have fallen and transport infrastructure has been substantially upgraded, some utilities and professional services remain expensive in international comparison. In contrast with the overall high flexibility of product markets, regulation of network industries in Ireland is somewhat more restrictive than the OECD average, competitive pressures in some professions are limited and, more generally, competition law needs more effective enforcement. Simulations in a DSGE model (Department of Finance, 2011b) show that increasing product market competition in Ireland can yield significant long-run output gains (GDP 0.66% higher 20 years after a 1 percentage point reduction of the price mark-up in the final goods sector), broadly in line with results obtained for the EU as a whole (Roeger *et al.*, 2008). Gains accrue not only

through cost competitiveness and exports but also (and mainly) through higher investment and R&D.

### *More effective competition law*

Enforcement of Irish competition law continues to be hampered because the emphasis on criminal rather than civil law and the ensuing very high standard of proof implies that in practice sanctions can only be imposed in case of flagrant cartel behaviour. While prioritising cartel punishment is appropriate, civil fines with a lower standard of proof should be introduced to deter other infringements (like vertical restraints or abuse of a dominant position) and hence promote stronger competition. It is also important to ensure that the relevant agencies have adequate resources to fulfil their tasks, and that budget savings and staff cuts (in the case of the Competition Authority, roughly a quarter over the past two years) do not go beyond what can be compensated through efficiency gains. Further, no exemptions from competition law should be granted for collective bargaining, as sought by some representative bodies in medical professions, as this would likely lead to higher health care costs for the State.

### *Competition in legal services should be increased*

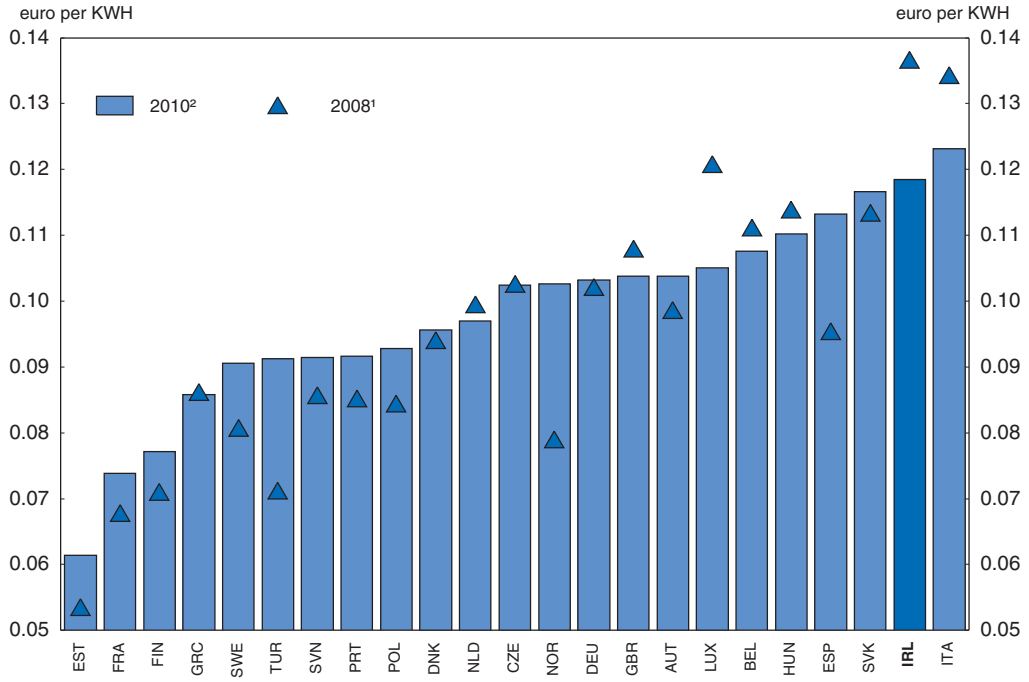
Restrictive practices and regulatory shortcomings in the legal professions generate higher prices. Barristers and solicitors bodies perform both regulation and professional representation, which is at odds with arrangements applying to other professions in Ireland and to the legal profession itself in other countries. The potential for tension between pursuing the interests of the profession and those of society and consumers at large may help explain numerous restrictions to competition between lawyers, which mainly stem from the rules and practices of professional bodies, and the fact that legal fees are high by international comparison (Forfás, 2010e). To reform those rules and practices, an independent regulator for the legal professions should therefore be set up, in tandem, where needed, with changes in legislation enshrining anti-competitive rules. Areas of concern include *inter alia* restrictions on professional training, other barriers to entry in the provision of specific legal services, and non-transparent fees. As part of their commitments under the EU-IMF programme, the authorities are finalising legislative changes to implement reforms along these lines.

### *Vertical integration in electricity should be decreased…*

Electricity remains expensive in international comparison, though over the past two years cheaper gas (which accounts for more than half of all electricity generated in Ireland) has helped to bring Irish prices closer to the European average (Figure 3.11). Higher wholesale prices do not necessarily reflect insufficient competition or regulatory failures. Devitt *et al.* (2011) argue that the all-island wholesale electricity market set up in 2007 has been delivering a price broadly aligned with long-run marginal cost, the higher wholesale price relative to Great Britain being largely due to greater use of cheaper coal and nuclear energy in Britain. However, the retail margin is probably too high (Devitt *et al.*, 2011), which could reflect inefficiencies in transmission, distribution and supply.

The sector is still characterised by a high degree of vertical integration. State-owned Electricity Supply Board (ESB), the only firm in the sector until the late 1990s, still owns the transmission and distribution networks, operates the latter (Eirgrid, also state-owned, was established in 2006 to operate the former), and remains a major player in generation and

Figure 3.11. **Electricity prices: simple average for households, SMEs and large industrial users**




1. Italy 2007, Luxembourg 2009.
2. Italy 2007 for large industrial users and households; Austria 2008 for SMEs and large industrial users.

*Source:* Eurostat.

StatLink http://dx.doi.org/10.1787/888932527623

supply, now competitive segments. Diffney *et al.* (2009) suggest that limited competitive pressures on ESB have shown up in a large wage premium relative to manufacturing, which vastly exceeded the Euro area average in 2004 and has remained broadly stable thereafter. Vertical integration in the sector should be further decreased, by transferring the ownership of the transmission network to Eirgrid and possibly by additional reductions to ESB's generating capacity (Review Group on State Assets and Liabilities, 2011). This would promote greater competition and foster efficiency in investment, as transferring the ownership of the low-risk transmission assets should enable the grid operator to minimize its cost of capital, and avoid any implicit cross-subsidisation of ESB's cost of capital when investing in riskier generation assets (Diffney *et al.*, 2009). Further, while preserving high technical standards in the sector, the regulator (the Commission for Energy Regulation, CER) should ensure that retail margins contain no monopoly rents by pushing for cost reductions – for instance, through greater outsourcing of network maintenance and investment work (Fitz Gerald, 2011). Concerns about vertical integration also extend to the gas market, where ownership of Bord Gáis Éireann's (BGÉ) transmission network should be separated from its other businesses in electricity generation and electricity and gas supply.

### *... and renewables penetration should be achieved in a cost-efficient way*

Renewable energy policy should seek to achieve environmental objectives at least cost, so as not to harm competitiveness. To deliver on its EU-level commitment to reach 16% of energy from renewable sources by 2020, Ireland set itself the target of sourcing 40% of

electricity from renewables by that year, in conjunction with targets for renewables penetration in heating and road transport. A feed-in tariff scheme (REFIT) has been in place for several years to incentivise expansion of onshore wind and other renewable sources of electricity (*e.g.* offshore wind, tidal or wave). The required investment in both generation and transmission (including international interconnection) is very substantial and will ultimately be recovered from consumers through higher prices (more specifically, through the PSO – Public Service Obligation – levy). Targets for renewables penetration in electricity should therefore be reassessed in the light of changed circumstances, such as lower levels of output and energy demand, a much increased cost of capital and the prospect of cheaper gas, brought about *inter alia* by the boom in the supply of US shale gas. In the event of medium or high fossil fuel prices, Diffney *et al.* (2009) find expansion of onshore wind generation to be economically sound, but with cheap gas the current onshore wind targets become uneconomic, and should probably be revised downwards, as emphasized by the Review Group on State Assets and Liabilities (2011). However, prudence is called for. Diffney *et al.* (2009) find that, relative to the optimal mix of sources, the extra costs of too much wind in the event of cheap fossil fuels are smaller than those of too little wind under expensive oil and gas. Further, the costs of increased reliance on renewables in heating and transportation (to compensate less electricity from renewables, and thus stay on course for the 16% overall target) would need to be taken into account, and could be substantial (Fitz Gerald, 2011).

Whether the 40% target for electricity from renewables is kept unchanged or revised downwards, the REFIT scheme should be made more cost efficient. Support for offshore wind, tidal or wave electricity, which currently enjoy guaranteed prices 2 to 3 times higher than those received by onshore wind generators, should be brought to an end, as those sources are high-cost and unnecessary for meeting environmental targets (Fitz Gerald, 2011). The fixed part of REFIT payments, paid per MWh produced in addition to guaranteed prices, should also be eliminated for all new generators (Devitt and Valeri, 2011; Fitz Gerald, 2011). Since increased interconnection is essential for the wind penetration targets to be economic, incentives should be in place to synchronise the expansion of wind with the delivery of further interconnection. Subject to compliance with EU rules, this might be achieved by making the cost of the constraining off of wind (when supply exceeds the system's capacity to absorb it) fall on the latest wind generators to have entered the market (Fitz Gerald, 2011).

### *Better public transport would foster green growth*

Inefficient bus services penalize commuters, public finances and the environment. State-owned Dublin Bus and Bus Éireann, which have long enjoyed near-monopoly status (in Dublin and in regional cities and surrounding areas, respectively), have recorded significant losses in passenger numbers over the past few years, despite Ireland's growing population. Some regulatory progress was made in 2010, with an independent regulator (the National Transport Authority, NTA) taking responsibility for the sector and a reform of licensing rules opening up licences for existing commercial (*i.e.*, non-subsidised) bus services to competition. This should be extended to subsidised (Public Service Obligation) routes. Efficiency gains can improve the trade-off between costs and the level of service provision, promoting modal shift away from private motoring and thus reducing congestion and $CO_2$ emissions. Introducing a congestion charge in Dublin would also be of value on those counts. After a 156% increase since 1990, the transport sector accounted for

21.0% of total Irish GHG emissions in 2009, above the EU average of 20.2%. Despite some reduction due to the economic crisis, emissions from transportation will need to be further curbed if Ireland is to achieve its 2020 EU-level target in non-ETS sectors.

### *Supports to SME internationalisation should be streamlined*

Irish-owned firms, mostly SMEs, must lie at the heart of a return to healthy growth and job creation, as they account for around 90% of private sector employment. Given macroeconomic conditions, their growth will require much greater focus on foreign markets, after a decade in which exports remained broadly constant as a share of total sales by tradable sectors' indigenous firms (Forfás, 2010d). Irish exporters will also need to reach beyond their traditional destinations, most prominently the UK, and seek entry into the more demanding emerging markets, which offer stronger growth prospects and where clients' different needs and tastes may spur greater investment in innovation. The authorities are aware of these challenges, and support to internationalisation through consultancy expertise, trade missions or funding for market research is provided by a number of government agencies. These include first and foremost Enterprise Ireland (EI), the enterprise development agency supporting export-focused Irish firms, but also, among others, regional-based agencies (*e.g.* Shannon Development), the 35 City or County Enterprise Boards (which specialize in support for micro-enterprises) and sector-specific organisations, such as Bord Bia in the food industry and Fáilte Ireland in tourism. As pointed out by the Special Group on Public Service Numbers and Expenditure Programmes (2009), there is considerable overlap and duplication both in the services provided by the agencies in Ireland and in the overseas networks of those represented abroad (EI and Bord Bia, but also IDA Ireland, responsible for the attraction and development of FDI, and Tourism Ireland, an all-island tourism promotion body). In export promotion and in other areas, like fostering start-ups, support to indigenous enterprise should be centralized in EI, and office networks abroad rationalised. The ensuing efficiency gains would make it possible to allocate more resources to penetration in emerging markets, for instance through more systematic engagement both with the Irish diaspora and with immigrant communities in Ireland (*e.g.* from China), which can be a valuable source of networking and market information.

### *Progress in R&D investment should be sustained*

Innovation in the business sector has central importance for productivity growth and competitiveness, and can be supported by a range of policy interventions (Jaumotte and Pain, 2005). These include direct subsidies and tax reliefs, as well as increases in R&D performed at non-business organisations, provided the latter are accompanied by a growing supply of high-quality human resources for science and technology. The authorities can also foster innovation by preserving and enhancing favourable framework conditions, such as competitive product markets and a high-quality education system (OECD, 2010a), addressed elsewhere in this chapter. In times of fiscal consolidation, Ireland needs to achieve greater efficiency in public funding of R&D. This requires minimising deadweight losses and laying more and better-focused emphasis on technology transfer to the enterprise sector, as discussed below.

In the recent past, Ireland has managed to continue to make progress on the research and innovation front. Gross expenditure on R&D (GERD) rose from 1.1% of GDP in 2002 to 1.3% in 2007, and accelerated to 1.8% in 2009. Researchers as a share of total employment (or of total labour force) caught up to the EU average in 2008, and clearly exceeded it in

2009. Irish universities, traditionally stronger in teaching, have made strides in research, with major progress in scientific publications and their impact (Forfás, 2011). Progress was also substantial among companies, with business expenditure on R&D (BERD) increasing from 0.8% of GDP in 2007 to the EU average of 1.2% in 2009.[6] Nonetheless, Irish investment effort in R&D still lags behind the OECD average (2.3% of GDP GERD in 2008) and the best EU performers. In the light of economic and budgetary difficulties, the target of making GERD reach 2.5% of GNP has been postponed from 2013 to the end of the decade. As envisaged by the authorities, public funding of R&D should at least be kept constant in nominal terms until 2014.

### *Deadweight costs from the R&D tax credit are non-negligible*

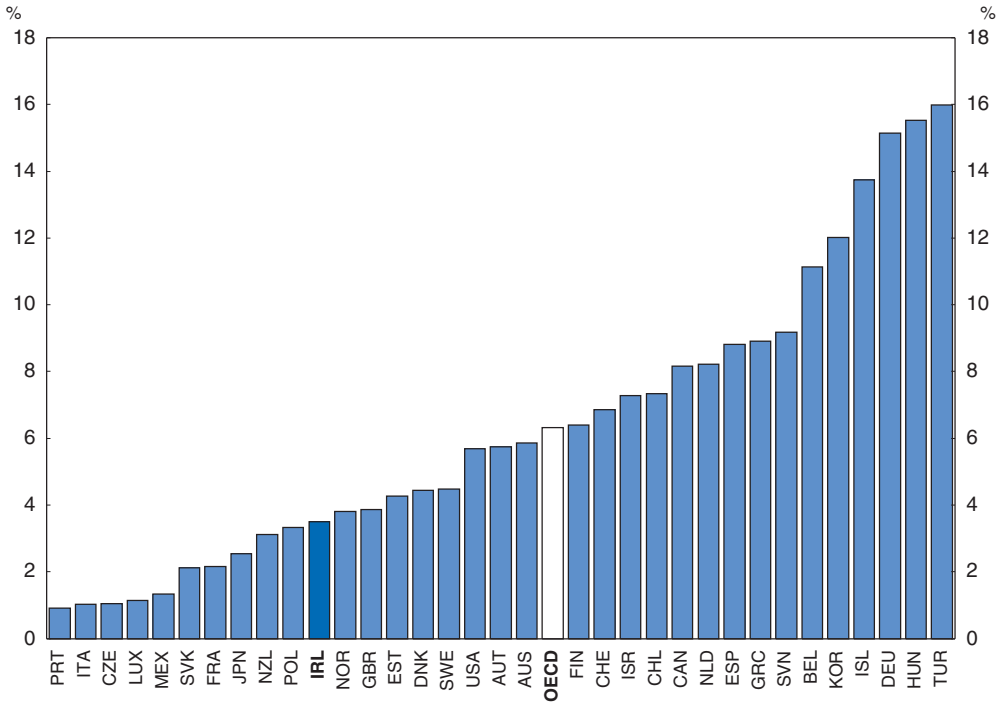
R&D tax incentives were introduced in 2004 in the form of an incremental tax credit, applying to additional R&D expenditure relative to the 2003 base year. This credit is likely to have played a role in promoting BERD, as both the number of claimants and the associated tax cost increased rapidly until 2007 (Department of Finance, 2010),[7] amounting in this year to almost 0.1% of GDP, around twice as much as direct government funding of BERD (OECD, 2010b). According to the B index, an indicator of the degree of subsidy implicit in the tax treatment of R&D, Ireland ranked in the middle band of countries in 2008 (OECD, 2010a). However, the scheme was made more attractive in 2009, *inter alia* by increasing the rate of relief from 20% to 25% (which is captured by the B index) and by introducing the possibility of cash refunds in case of insufficient corporation tax liability (which is not captured, but is nonetheless highly generous by international comparison). Multinationals took the lead in claiming this tax credit, which is an important tool to attract R&D related FDI projects, but a growing number of Irish-owned firms have also availed themselves of the incentive, especially in the software sector. Claims by indigenous companies reached 32% of the total value claimed in 2007 (Department of Finance, 2010), broadly in line with their weight in Irish BERD.

The 2009 reform also fixed 2003 as the permanent base year, implying that the scheme will over time effectively become volume-based (*i.e.* applying to all relevant R&D expenditure, not to additional expenditure only), rather than incremental. This further increases generosity at the cost of a growing deadweight, as incentives to additional R&D are blurred. In this respect, it is of some concern that more than one third (36%) of surveyed claimants considered that the tax credit did not encourage additional R&D (Department of Finance, 2010). The authorities should continue to assess the effectiveness of the tax credit scheme, and increase the degree of incrementalism if significant deadweight costs are confirmed. A hybrid scheme, combining volume and incremental tax incentives, could be considered. In line with announcements made in the Jobs Initiative, the authorities should also introduce greater flexibility in the way firms can account for this tax credit. The option of above-the-line accounting (*e.g.* offsetting R&D tax credits against employers' PRSI, rather than against corporation tax payable by the company) can be of value in a context of international competition for R&D investment projects on the basis of pre-tax comparisons across different jurisdictions (Commission on Taxation, 2009).

### *Technology transfer needs more and better focused efforts*

Challenges remain in the area of linkages between research institutions and industry (Martin, 2009), as illustrated by the below-average business funding of R&D in the higher education sector (Figure 3.12). Technology transfer to the enterprise sector is also

Figure 3.12. **Higher education expenditure on R&D (HERD) financed by industry, 2009**[1]




1. Or latest data available.
*Source:* OECD, *Main Science and Technology Indicators (MSTI) Database.*

StatLink http://dx.doi.org/10.1787/888932527642

hampered by the lack of industry-specific research organisations (Teagasc, the agriculture and food development authority, being one of the few exceptions). The involvement of Irish SMEs in R&D remains low, despite some exceptions (such as the indigenous software sector), and foreign owned companies continue to account for around 70% of total BERD. Aware of these problems, the authorities have been developing a range of initiatives to bring researchers and industry into closer co-operation, often with a particular focus on SMEs (Box 3.5). While these efforts are welcome, they need to be expanded, which may entail reallocations within the overall R&D budget envelope. For instance, as emphasised by the Innovation TaskForce (2010), among others, the current level of R&D-intensive start-ups is still insufficient, and more needs to be done to promote inter-firm collaborations and knowledge transfer.

The need also remains for more concentration of resources in a smaller number of centres of excellence, to avoid spreading public funding too thinly. For instance, the high total number of researchers-industry collaborative undertakings of various types (Competence Centres, Centres for Science, Engineering and Technology and Strategic Research Clusters, described in Box 3.5) may entail dangers of under-financing or missing out on cross-field spillovers. Fewer and larger actors in the research arena will also contribute to ease interaction with MNCs. Along these lines, the authorities have established an expert group to carry out a prioritisation exercise, due to report in Autumn 2011. It is essential that any priorities are informed by a systematic performance assessment of the existing programmes and supported institutions, including those in the

### Box 3.5. **Policies to promote technology transfer and SME engagement in R&D**

Innovation features as one of the five key action areas in *Building Ireland's Smart Economy* (December 2008), the authorities' framework document for economic recovery, and public agencies have been rolling out a number of initiatives to foster a knowledge-based economy. A study group – the Innovation Taskforce – has also been appointed to analyse in more detail public policy in this domain. Leading actors in the areas of industry-researchers linkages and support for SMEs R&D engagement are Enterprise Ireland (EI), IDA Ireland, and Science Foundation Ireland (SFI), which administers basic research funds for science and engineering, with an emphasis on biotechnology, ICT and energy.

EI and IDA launched the first five Competence Centres in 2010, bringing together research institutions, Irish companies and MNCs to undertake market-focussed, industry-driven R&D in areas such as nanotechnology and bioenergy. More such centres have already been set up in 2011, with plans to reach a total of 16. They can be seen as complementing SFI-funded higher education-enterprise linkages, such as its 10 Centres for Science, Engineering and Technology (CSETs) and 19 Strategic Research Clusters (SRCs), where collaborative research projects tend to be more distant from market. Nonetheless, to foster commercialisation of research outputs, commercial development managers were also appointed to 6 CSETs in 2010 under a EI/SFI collaboration programme. The EI-funded Technology Transfer Offices (TTOs), set up at higher education institutions, are yet another tool to foster linkages to industry and commercialisation.

EI also provides a range of supports – in the areas of finance, management and market development – for the creation and growth of R&D-intensive SMEs. Funding to about 70 to 80 high potential start-up companies (HPSUs) *per annum* has been approved in recent years. To provide equity finance to innovative firms, EI has entered into partnership with seed and venture capital funds and fostered business angel activity. A major development in this area has been the launching of Innovation Fund Ireland (July 2010), a venture capital fund with up to EUR 250 million aiming to attract leading international fund managers to Ireland. Half of that amount will be Exchequer-provided and managed by EI, while the National Pension Reserve Fund is to make commercial investments up to another EUR 125 million.

A related policy strand aims to incentivise R&D among indigenous firms, including those with no innovation background. Apart from availing of the R&D tax credit, Irish firms can take advantage of grants for in-company R&D under the EI R&D Fund, which foresees a bonus of up to 15% if there is collaboration between two companies on a project. Initiatives targeted at non-R&D performing small companies include advocacy efforts (subsidised consultancy support to assess R&D needs and prospects) and the Innovation Voucher Scheme (launched in 2007), which provides EUR 5 000 vouchers for firms to acquire R&D services from research institutions. The number of redeemed vouchers increased from around 200 in 2008 to more than 450 in both 2009 and 2010. Linkages are promoted not only with third level institutions but also among participating firms, as up to 10 vouchers can be pooled.

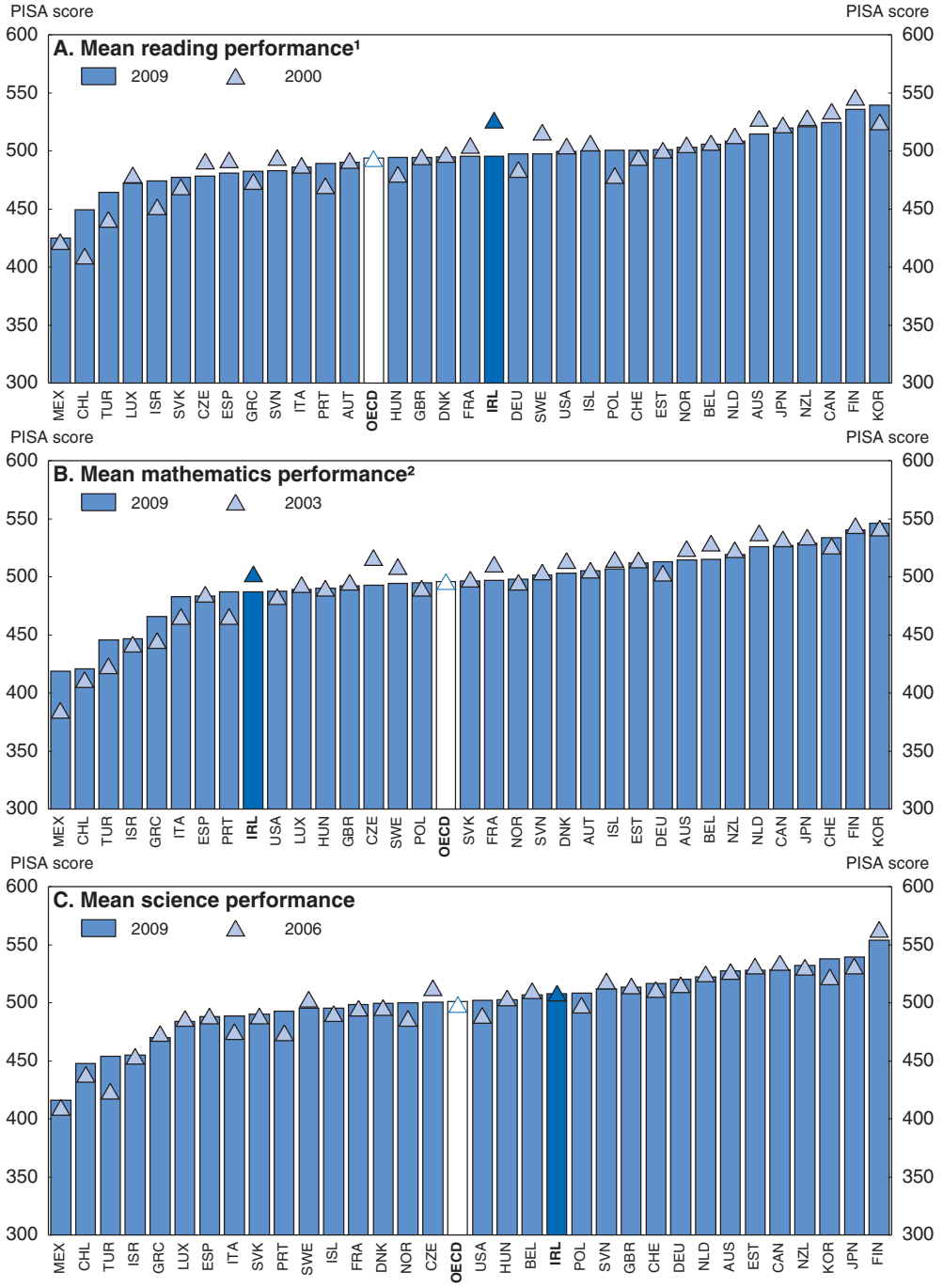
higher education sector. Performance assessments themselves need to be expanded and improved, as there is still a lack of a strong evaluation culture.

#### *High-quality education is key to long-term economic growth and social cohesion*

To preserve its strengths in human capital, Ireland needs to ensure a high quality of education. Yet serious concerns have emerged. The PISA 2009 outcomes (which measure achievement of 15-year olds) were particularly disappointing for Ireland, with reading and mathematics performance respectively recording the largest and the second largest

declines in the OECD. Irish scores no longer differ (in terms of statistical significance) from average OECD levels in reading and lie below average in maths; they remain above the OECD average in science, where performance has not changed relative to 2006, the previous comparable result (Figure 3.13). This deterioration in performance has taken

Figure 3.13. **PISA results in OECD countries**




1. Austria: 2000, 2006; Estonia, Slovenia and United Kingdom: 2006, 2009; Luxembourg, Netherlands, Slovak Republic and Turkey: 2003, 2009.
2. Austria 2003, 2006; Chile, Estonia, Israel, Slovenia and United Kingdom: 2006, 2009.

*Source:* OECD, *PISA 2009 Results: Learning Trends, Changes in student performance since 2000*, Volume V.

StatLink http://dx.doi.org/10.1787/888932527661

several observers by surprise, and is inevitably surrounded by a margin of error. However, neither sampling factors nor changes in the socio-economic composition of student populations can account for the bulk of the deterioration (OECD, 2010c; Perkins *et al.*, 2010).[8] It should also be noted that not all the decline took place in the latest PISA round, as a sizeable fall in reading had already taken place between 2000 and 2003. Yet between 2000 and 2008 expenditure per student (in public institutions of primary, secondary and post-secondary non-tertiary education) increased 83% in real terms (OECD, 2011), bringing total expenditure in 2008 to a level above the OECD average as a percentage of GDP (4.1% versus 3.7%).[9] There are no simple recipes for delivering high-quality education, nor an automatic translation of the latter into stronger economic growth. However, recent studies have highlighted Irish weaknesses in areas like assessment and accountability policies or teacher training, to which until recently a low coverage of pre-primary education should be added.

### *The school system needs stronger accountability mechanisms*

The Irish school system is characterised by comparatively limited accountability mechanisms. Results from TALIS (OECD, 2009b), an international survey focussing on lower secondary education teaching and learning environments implemented in 2007-08, show that 26% of teachers in Ireland had not received any appraisal or feedback in their schools, the 4th highest percentage among the 23 participating countries (18 of which are currently OECD members). Further, Ireland had the highest share (39%) of teachers working in schools where no evaluation from any source had been conducted over the past 5 years, as well as a strong perception of reduced impact of teacher appraisal and feedback, in terms of financial rewards, career progression or participation in professional development activities. Infrequent inspections, as well as an absence of required school self-evaluations, also hold at primary and upper secondary levels (OECD, 2011). In a related vein, the PISA 2009 study includes Ireland among the countries making an infrequent use of student achievement data for decision making or benchmarking and information purposes, with likely costs in terms of socio-economic equity (OECD, 2010d). Stronger accountability mechanisms are also associated with a smaller between-school variance in reading performance (OECD, 2010d), an indicator where Ireland recorded a large increase from PISA 2000 to PISA 2009.

The above weaknesses are mirrored in a number of constraints on the work of the Inspectorate of the Department of Education and Skills, and on the publication of performance data. Though nation-wide standardised tests or exams are carried out at two stages of primary school, at the end of lower second level (the Junior Certificate) and at the end of upper second level (the Leaving Certificate), limited data on comparative school performance is made public. Inspection of the work of individual teachers falls almost exclusively on primary teachers on probation, and most school inspections (all, at second level) are announced well in advance. Yet unannounced inspections carried out between October 2009 and October 2010 in 450 primary schools found teacher preparation for English and maths lessons to be unsatisfactory in around a quarter of all cases, and poor preparation to be strongly correlated to poor learning outcomes (Department of Education and Skills, 2010). The authorities have recently announced that unannounced inspections will be extended to second-level schools, which is welcome. In another positive development, the new national literacy and numeracy strategy for 2011-20 (Department of Education and Skills, 2011) proposes making greater use of assessment information (namely results from standardized tests of reading and mathematics) to improve the teaching practice, provide better feedback to parents and inform schools' self-evaluation

and improvement plans. Alongside this required self-evaluation, the authorities should set up external evaluation mechanisms to systematically assess teachers' and schools' performance, and make the latter public once adjusted for socio-economic background. Evaluation results should have implications for career progression, and inform any needed corrective action in relevant areas.

### *Maths tuition has room for improvement*

Shortcomings in teacher training and in the allocation of instruction time across subjects may be penalizing learning outcomes in mathematics, as well as decreasing the willingness of students to pursue further studies in this discipline. Primary teachers, who teach all subjects to their pupils, were found to vary widely in their mathematical knowledge for teaching (Delaney, 2010). At post-primary level, virtually half (48%) of the mathematics teachers did not have a mathematics teaching qualification, with an even higher figure (60%) among teachers aged 35 or under (Ní Ríordáin and Hannigan, 2009). In 2009, mathematics accounted for only 12% of the compulsory core curriculum instruction time for Irish 9-11 year-olds (primary school pupils), below the 16% OECD average (OECD, 2011). Since 2005 there has been a steady decline in the share of students taking higher level maths in their Leaving Certificate examination (in 2010, only 16% of those taking the subject, the remainder 84% opting for the less demanding ordinary or foundation levels[10]), and mathematics, science and technology graduates have essentially stagnated (relative to population) over the past decade (European Commission, 2011), thus eroding Ireland's lead on this count.

As a response, the authorities have been rolling out Project Maths, a revised second-level mathematics curriculum supported by a training programme for teachers, launched in 24 schools in 2008 and generalized to all in September 2010. Besides improved assessment and accountability tools, the new national literacy and numeracy strategy (Department of Education and Skills, 2011), launched in July 2011, also envisages reforms in curriculum content and in teachers' initial training and professional development at different school levels, and will *inter alia* reallocate primary school teaching time in favour of literacy and mathematics. The authorities should pursue these efforts to improve maths syllabi and teacher training, and at primary level could consider introducing specialist maths teachers, possibly shared among schools in areas where these are small or as a transitional measure. Teachers' performance evaluation should play a role in informing the need for, and modalities of, training, and the effectiveness of training itself should be systematically assessed.

### *The provision of pre-primary education should be extended*

Pre-primary school attendance has both a positive impact on later educational performance and an equity-enhancing effect, reducing the persistence of educational inequality across generations (Causa and Chapuis, 2009). Ireland has traditionally lagged other European countries in this area: in 2009, the enrolment rate for 3 and 4-year-olds (as a percentage of children of that age) stood at 23%, only a third of the OECD average of 70% (OECD, 2011). In a welcome step, the government introduced in 2010 a free Pre-School Year, which replaced the Early Childcare Supplement (a welfare payment). This is open to 3 and 4 year-olds and intended to precede the so-called infant cycle of primary schools (lasting for two years, before first class), where children must be at least 4 years of age at the start of the school year (September). Provided at separate institutions (playschool or day care services), it has had very high enrolment in September 2010 (94% of all eligible children).

However, the duration of Pre-School Year daily classes is only 3 hours, which is internationally low (even by part-time provision standards) and compares with around 5 hours for primary school's infant cycle. Further, since entrants must be aged at least 3 years and 3 months, they tend to be slightly older (by around half a year on average) than their pre-primary counterparts in other countries. There is evidence that an early start at pre-school is linked with better intellectual and social development of children (Sylva *et al.*, 2003). The authorities should therefore reallocate budget funds to increase the provision of pre-primary education, by extending the duration of daily classes in the Pre-School Year and opening it to children soon to be three (with a similar lowering of the entry age at the infant cycle of primary schools). More pre-primary school attendance will also have a positive impact on the labour supply of young mothers.

### Box 3.6. **Summary of recommendations to restore competitiveness**

**Reducing unit labour costs**

- Implement planned reforms to Employment Regulation Orders and Registered Employment Agreements, and go further by allowing firms to opt out through collective agreement.
- Keep a tight control of public sector wage expenditure.

**Reducing non-labour costs**

- Introduce civil fines in competition law.
- Set up an independent regulator for the legal professions.
- Decrease vertical integration in electricity and gas.
- Reform the feed-in tariff scheme for electricity from renewable energy sources (REFIT). Bring to an end support for offshore wind, tidal or wave electricity, as well as the fixed part of REFIT payments.

**Reassessing export-support, innovation and education policies**

- Centralize support to the internationalisation of indigenous enterprise in Enterprise Ireland, and rationalize the overseas office networks of state agencies.
- Upscale efforts to promote co-operation between industry and researchers and concentrate resources in a smaller number of centres of excellence, with prioritisation informed by systematic performance assessment.
- Further assess the effectiveness of the R&D tax credit scheme, and make it more focused on additional R&D activity if significant deadweight costs are confirmed. Introduce greater flexibility in the way firms can account for this tax credit.
- Systematically evaluate teachers' and schools' performance, and make the latter public once adjusted for socio-economic background. Evaluation results should have implications for career progression, and inform any needed corrective action in relevant areas.
- Further pursue efforts to improve the syllabi and teacher training in mathematics. Take teachers' performance evaluation into account when establishing training needs, and systematically assess the effectiveness of training itself.
- Reallocate budget funds so as to increase the duration of daily classes in the Pre-School Year and to open it to children soon to be three.

### *Notes*

1. Using either the national CPI or the HICP as deflators. Forecasts for these indices in 2011 are those underlying Table 1 in the Assessment and Recommendation of this Survey.
2. Whose limitations and methodological shortcomings are discussed (McGuinness *et al.*, 2011).
3. From the apprentice's viewpoint, completion is generally desirable even in construction trades, as certification can be valuable in foreign labour markets.
4. Even in the current circumstances, construction firms may still have an incentive to hire apprentices as "cheap labour", since towards the end of their training those in less technically-demanding trades are often as productive as regular workers.
5. Results should be regarded with some caution, due to important data limitations. For instance, compensation per employee, rather than unit labour costs, is taken as the sectoral deflator.
6. CSO data for 2010 shows a marginal fall in nominal BERD, implying a slight increase as a per cent of GDP.
7. In 2008 the number of claimants rose further, though with a slight decline in estimated total value (Forfás, 2011).
8. While demographic developments such as more migrant students with a non-English first language have plausibly put some downward pressure on scores, socio-economic factors as a whole probably have not (OECD, 2010c, pp. 49/50).
9. A related indicator – cumulative expenditure per student aged 6 to 15 in equivalent USD converted using PPPs – places Ireland roughly 10% above the OECD average in 2007 (OECD, 2010c).
10. Leaving Certificate mathematics is required for matriculation at almost all Irish tertiary education institutions.

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## ANNEX 3.A1

# *Constant market share analysis: methodology and detailed results*

Following Nyssens and Poullet (1990) and Amador and Cabral (2008), the total change in the share of Irish exports worldwide (*i.e.*, the Total Effect, TE) is given by the difference between the growth rate of Irish merchandise exports ($g$) and the growth rate of world merchandise exports ($g^*$):

$$TE = g - g^* = \sum_i \sum_j \theta_{ij} g_{ij} - \sum_i \sum_j \theta^*_{ij} g^*_{ij}$$

where

$$g_{ij} = \frac{X_{ij,t} - X_{ij,t-1}}{X_{ij,t-1}}$$

$$\theta_{ij} = \frac{X_{ij,t-1}}{\sum_i \sum_j X_{ij,t-1}}$$

$$g^*_{ij} = \frac{X^*_{ij,t} - X^*_{ij,t-1}}{X^*_{ij,t-1}}$$

$$\theta^*_{ij} = \frac{X^*_{ij,t-1}}{\sum_i \sum_j X^*_{ij,t-1}}$$

$Xij$ ($Xij^*$) denotes nominal Irish (world) exports of product $i$ to market or destination $j$, with $i$ = 1, …, 124 (ISIC Rev. 3 manufactured products at the 4-digit level excluding energy-related items – code 23) and $j$ = 1,…,81 (the countries or country groups listed in Box 3.A1.1). Since Ireland is not an export market to itself, it is also excluded from the destinations for world exports.

TE can be algebraically decomposed into a market share effect (MSE) and a combined structure effect, itself comprising a product structure effect (PSE), a geographical structure effect (GSE) and a residual term (mixed structure effect, MIX). These are defined below.

$$TE = MSE + PSE + GSE + MIX$$

$$MSE = \sum_i \sum_j \theta_{ij} (g_{ij} - g^*_{ij})$$

The market share effect for a given product *i* (market *j*), given in Table 3.A1.2 (Table 3.A1.3), is computed as the sum over *j* (i) in the above equation.

$$PSE = \sum_i (\theta_i - \theta_i^*)(g_i^* - g^*)$$

$$GSE = \sum_j (\theta_j - \theta_j^*)(g_j^* - g^*)$$

$$MIX = \sum_i \sum_j \left[ (\theta_{ij} - \theta_{ij}^*) - (\theta_i - \theta_i^*)\frac{\theta_{ij}^*}{\theta_i^*} - (\theta_j - \theta_j^*)\frac{\theta_{ij}^*}{\theta_j^*} \right] g_{ij}^*$$

where

$\theta_i = \sum_j \theta_{ij}$ (share of product i in Irish exports)

$\theta_i^* = \sum_j \theta_{ij}^*$ (share of product i in world exports)

$\theta_j = \sum_i \theta_{ij}$ (share of market j in Irish exports)

$\theta_j^* = \sum_i \theta_{ij}^*$ (share of market j in world exports)

$g_i^* = \dfrac{\sum_j \theta_{ij}^* g_{ij}^*}{\theta_i^*}$ (growth rate of world exports of product i)

$g_j^* = \dfrac{\sum_i \theta_{ij}^* g_{ij}^*}{\theta_j^*}$ (growth rate of world exports to market j)

### Box 3.A1.1. **Export markets: countries and country groups**

**OECD**

Australia, Austria, Belgium-Luxembourg, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Israel, Italy, Japan, Korea, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovenia, Slovak Republic, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States.

**Non-OECD Europe**

Albania, Bulgaria, Latvia, Lithuania, Romania, Russian Federation, other European countries.

**Africa**

Algeria, Cameroon, Ivory Coast, Egypt, Gabon, Kenya, Libya, Morocco, Nigeria, Tunisia, South Africa, other African countries.

**Non-OECD America**

Argentina, Brazil, Bolivia, Colombia, Ecuador, Paraguay, Peru, Uruguay, Venezuela, other American countries.

**Middle East Asia**

Saudi Arabia, other Middle East Asian countries (Gulf), other Middle East Asian countries (non-Gulf).

**Non-OECD East Asia**

Bangladesh, Brunei, Cambodia, China, Chinese Taipei, Laos, India, Indonesia, Pakistan, Philippines, Malaysia, Singapore, Sri-Lanka, Thailand, Vietnam, other East Asian countries (LDC), other East Asian countries (non-LDC).

Table 3.A1.1. **Main results of the constant market share analysis of Irish exports (nominal, manufacturing excluding energy)**

| | Growth of Irish exports, % | Growth of world exports, % | Total effect | Market share effect | Combined structure effect | *Of which:* | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | Product structure effect | Geographical structure effect | Mixed structure effect |
| | (1) | (2) | (3) = (1) – (2) = (4) + (5) | (4) | (5) = (6) + (7) + (8) | (6) | (7) | (8) |
| 1996 | 11.5 | 3.4 | 8.1 | 6.8 | 1.3 | 3.2 | –0.9 | –1.0 |
| 1997 | 11.0 | 2.8 | 8.2 | 6.4 | 1.7 | 1.3 | –0.2 | 0.6 |
| 1998 | 21.9 | 3.2 | 18.7 | 14.4 | 4.4 | 0.5 | 2.6 | 1.3 |
| 1999 | 10.4 | 3.5 | 7.0 | 4.4 | 2.6 | 3.9 | –0.8 | –0.5 |
| 2000 | 7.9 | 8.2 | –0.3 | –0.2 | –0.1 | 2.1 | –3.2 | 0.9 |
| 2001 | 1.7 | –2.6 | 4.3 | 4.1 | 0.2 | 0.3 | 0.6 | –0.7 |
| 2002 | 14.8 | 5.8 | 9.0 | 7.8 | 1.2 | 1.8 | –1.0 | 0.4 |
| 2003 | 5.2 | 17.6 | –12.4 | –8.5 | –3.9 | 1.1 | –1.9 | –3.1 |
| 2004 | 10.9 | 21.6 | –10.6 | –9.2 | –1.4 | –1.0 | –1.5 | 1.1 |
| 2005 | 5.9 | 11.2 | –5.3 | –3.2 | –2.1 | 0.7 | –2.8 | 0.0 |
| 2006 | 0.1 | 14.0 | –13.9 | –8.7 | –5.2 | –2.0 | –2.9 | –0.3 |
| 2007 | 12.2 | 13.9 | –1.6 | 3.9 | –5.5 | –4.8 | –0.8 | 0.1 |
| 2008 | 4.4 | 10.5 | –6.1 | –2.5 | –3.6 | 0.4 | –3.7 | –0.4 |
| 2009 | –8.4 | –19.4 | 11.1 | 3.9 | 7.2 | 8.0 | –1.0 | 0.2 |
| Average:[1] | | | | | | | | |
| 1996-2002 | 11.3 | 3.5 | 7.9 | 6.3 | 1.6 | 1.9 | –0.4 | 0.1 |
| 2003-2008 | 6.5 | 14.8 | –8.3 | –4.7 | –3.6 | –0.9 | –2.3 | –0.4 |

1. Simple average.
*Source:* OECD, *ITCS Database* and Secretariat calculations.

## Table 3.A1.2. **Product breakdown of market share effect**

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | Average[1] 1996-2002 | Average[1] 2003-08 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **High-technology products** | **3.3** | **4.2** | **10.1** | **–0.5** | **–1.5** | **9.7** | **5.0** | **–7.4** | **–5.1** | **–2.9** | **–8.1** | **0.6** | **1.6** | **1.6** | **4.3** | **–3.5** |
| Aircraft and spacecraft | 0.2 | –0.2 | –0.1 | –0.3 | –0.3 | –0.2 | 0.0 | –0.1 | 0.0 | 0.0 | 0.1 | 0.3 | 0.2 | 0.4 | –0.1 | 0.1 |
| Pharmaceuticals | 1.5 | 0.5 | 6.9 | –3.9 | –0.1 | –0.6 | 8.9 | –3.6 | –1.8 | –2.6 | –3.5 | –0.5 | 2.6 | 3.5 | 1.9 | –1.5 |
| Office, accounting and computing machinery | –0.6 | 2.6 | 2.4 | 0.9 | 0.3 | 5.3 | –4.3 | –1.3 | –3.6 | –0.3 | –1.0 | 1.3 | –2.9 | –2.1 | 0.9 | –1.3 |
| Radio, TV and communications equipment | 1.6 | 0.9 | 0.7 | 2.8 | –1.7 | 4.4 | 0.5 | –4.3 | –0.1 | 0.5 | –1.3 | –0.2 | 0.8 | –1.3 | 1.3 | –0.7 |
| Medical, precision and optical instruments | 0.7 | 0.4 | 0.3 | 0.0 | 0.3 | 0.8 | –0.1 | 2.0 | 0.4 | –0.5 | –2.4 | –0.3 | 0.9 | 1.1 | 0.3 | 0.0 |
| **Medium-high-technology products** | **4.7** | **5.8** | **4.7** | **5.7** | **1.7** | **–4.6** | **5.4** | **–0.7** | **–2.7** | **1.1** | **–1.4** | **4.5** | **–2.7** | **3.2** | **3.3** | **–0.3** |
| Other electrical machinery and apparatus | 0.2 | 0.7 | 0.5 | 0.0 | –0.3 | 0.0 | –0.7 | –0.1 | –0.4 | –0.3 | –0.2 | –0.1 | –0.2 | –0.1 | 0.1 | –0.2 |
| Motor vehicles, trailers and semi-trailers | 0.0 | 0.1 | 0.3 | 0.1 | 0.1 | 0.1 | –0.2 | –0.3 | –0.1 | –0.2 | 0.1 | 0.1 | –0.1 | 0.1 | 0.1 | –0.1 |
| Chemicals excl. pharmaceuticals | 4.4 | 4.7 | 4.3 | 5.5 | 2.3 | –5.2 | 6.7 | –0.1 | –2.5 | 1.9 | –1.2 | 3.3 | –2.0 | 3.1 | 3.2 | –0.1 |
| Railroad equipment and other transport equip. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Other machinery and equipment | 0.0 | 0.3 | –0.3 | 0.1 | –0.5 | 0.5 | –0.4 | –0.2 | 0.3 | –0.3 | –0.1 | 1.2 | –0.4 | 0.0 | 0.0 | 0.1 |
| **Medium-low-technology products** | **0.2** | **–0.4** | **–0.1** | **–0.2** | **–0.1** | **0.2** | **–0.5** | **–0.2** | **–0.3** | **–0.4** | **0.1** | **–0.1** | **–0.1** | **–0.2** | **–0.1** | **–0.2** |
| Rubber and plastics products | 0.0 | –0.1 | 0.0 | –0.1 | 0.0 | 0.1 | –0.2 | 0.0 | –0.1 | –0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Other non-metallic mineral products | 0.1 | 0.0 | –0.1 | 0.0 | 0.0 | 0.0 | –0.1 | 0.0 | –0.1 | –0.1 | 0.0 | –0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Building and repairing of ships and boats | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | –0.1 | 0.0 | 0.0 | 0.0 |
| Basic metals | –0.1 | 0.1 | 0.0 | 0.0 | 0.0 | –0.1 | –0.1 | –0.1 | –0.1 | 0.0 | 0.0 | 0.0 | 0.0 | –0.2 | 0.0 | 0.0 |
| Fabricated metal products, excl. machinery | 0.2 | –0.4 | 0.0 | –0.1 | –0.1 | 0.2 | –0.1 | –0.2 | –0.1 | –0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Low-technology products** | **–1.4** | **–3.2** | **–0.4** | **–0.7** | **–0.3** | **–1.2** | **–2.1** | **–0.2** | **–1.1** | **–1.0** | **0.7** | **–1.2** | **–1.3** | **–0.6** | **–1.3** | **–0.7** |
| Other manufacturing and recycling | 0.1 | 0.0 | –0.1 | –0.1 | –0.1 | 0.1 | –0.2 | 0.0 | 0.0 | 0.0 | 0.0 | –0.2 | –0.1 | 0.1 | –0.1 | –0.1 |
| Wood, pulp, paper and printed products | 0.9 | –0.7 | –0.4 | –0.5 | 0.3 | –0.7 | –1.4 | –0.2 | –0.8 | –0.2 | 0.2 | –0.6 | –0.1 | –0.2 | –0.4 | –0.3 |
| Food products, beverages and tobacco | –2.2 | –2.1 | 0.3 | 0.1 | –0.3 | –0.6 | –0.3 | 0.1 | –0.2 | –0.7 | 0.6 | –0.3 | –1.0 | –0.5 | –0.7 | –0.2 |
| Textiles, textile products, leather and footwear | –0.1 | –0.3 | –0.2 | –0.2 | –0.1 | 0.0 | –0.2 | –0.1 | –0.1 | –0.1 | –0.2 | 0.0 | –0.1 | 0.0 | –0.2 | –0.1 |
| **Total** | **6.8** | **6.4** | **14.4** | **4.4** | **–0.2** | **4.1** | **7.8** | **–8.5** | **–9.2** | **–3.2** | **–8.7** | **3.9** | **–2.5** | **3.9** | **6.3** | **–4.7** |

1. Simple average.
*Source:* OECD, *ITCS Database* and Secretariat calculations.

## Table 3.A1.3. **Geographical breakdown of market share effect**

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | Average[1] 1996-2002 | Average[1] 2003-2008 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| United Kingdom | 1.4 | 0.2 | 0.9 | 0.6 | 0.7 | 5.9 | –0.1 | –5.0 | –1.7 | –1.5 | 0.5 | 1.7 | –0.3 | –0.3 | 1.4 | –1.0 |
| United States | 1.7 | 1.8 | 4.4 | 1.6 | 0.4 | –3.5 | 7.7 | 1.0 | –1.2 | –1.5 | –2.1 | 0.6 | 0.4 | 2.5 | 2.0 | –0.4 |
| Belgium-Luxembourg | 0.8 | 0.7 | 2.3 | 0.0 | –0.5 | –0.3 | 9.6 | –3.5 | –1.4 | 0.2 | –2.7 | –0.2 | –0.4 | 2.5 | 1.8 | –1.3 |
| Germany | –0.5 | 1.5 | 4.9 | –2.3 | –0.6 | –0.4 | –2.2 | 0.0 | –1.2 | –0.4 | –0.3 | –0.1 | –1.0 | 0.6 | 0.1 | –0.5 |
| France | 0.2 | 0.3 | 1.3 | 0.9 | –0.4 | –0.8 | –1.1 | 0.0 | –0.5 | 0.4 | –0.8 | 0.3 | –0.1 | –0.4 | 0.1 | –0.1 |
| Italy | 0.2 | –0.1 | 0.5 | 0.8 | 0.5 | –0.1 | 0.2 | 0.1 | –0.7 | –0.1 | –0.3 | –0.7 | 0.0 | 0.0 | 0.3 | –0.3 |
| Netherlands | 0.9 | 0.8 | –1.4 | 1.1 | –0.6 | –0.2 | –1.1 | 1.0 | –0.9 | –0.1 | –1.4 | 0.3 | –0.7 | 0.1 | –0.1 | –0.3 |
| Spain | 0.0 | 0.5 | 0.3 | 0.2 | –0.1 | 0.3 | –0.3 | –0.1 | –0.2 | 0.5 | 0.1 | 0.0 | 0.4 | 0.0 | 0.1 | 0.1 |
| Switzerland | 0.3 | 0.1 | 0.4 | 0.6 | 0.3 | 0.7 | –0.4 | –0.1 | 0.0 | 0.3 | –0.7 | 0.6 | 0.0 | –0.3 | 0.3 | 0.0 |
| Japan | –0.1 | 0.7 | 0.1 | –0.2 | 0.5 | 0.4 | –0.8 | –0.5 | 0.1 | –0.3 | –0.6 | 0.1 | 0.0 | 0.1 | 0.1 | –0.2 |
| Other European OECD | 0.3 | –0.5 | 0.8 | 0.6 | 0.1 | –0.2 | –0.9 | –0.4 | –0.8 | –0.2 | 0.0 | 0.2 | –0.9 | –0.3 | 0.0 | –0.4 |
| Other non-European OECD | 0.7 | 0.8 | –0.1 | –0.6 | 0.5 | 0.7 | –0.9 | –0.1 | –0.5 | –0.2 | –0.1 | –0.1 | –0.3 | 0.0 | 0.2 | –0.2 |
| BRIC | 0.1 | –0.1 | –0.1 | 0.1 | –0.1 | 0.3 | 0.0 | –0.1 | –0.3 | 0.0 | –0.3 | 0.6 | 0.3 | –0.3 | 0.0 | 0.0 |
| East Asian[2] | 0.8 | –0.6 | 0.2 | 0.9 | –0.7 | 1.2 | –1.0 | –0.2 | –0.1 | 0.0 | 0.1 | 0.2 | 0.3 | –0.3 | 0.1 | 0.1 |
| Rest of the world | 0.1 | 0.5 | –0.1 | 0.1 | –0.3 | 0.1 | –0.8 | –0.5 | 0.2 | –0.2 | –0.1 | 0.3 | –0.3 | 0.1 | –0.1 | –0.1 |
| **Total** | **6.8** | **6.4** | **14.4** | **4.4** | **–0.2** | **4.1** | **7.8** | **–8.5** | **–9.2** | **–3.2** | **–8.7** | **3.9** | **–2.5** | **3.9** | **6.3** | **–4.7** |

1. Simple average.
2. Thailand, Singapore, Malaysia, Indonesia and Philippines.
*Source:* OECD, *ITCS Database* and Secretariat calculations.

## Table 3.A1.4. **Breakdown of product structure effect**

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | Average[1] 1996-2002 | Average[1] 2003-2008 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **High-technology products** | **1.9** | **1.4** | **1.3** | **2.1** | **0.7** | **0.9** | **1.2** | **0.3** | **–0.6** | **0.0** | **–0.8** | **–2.3** | **0.4** | **5.3** | **1.4** | **–0.5** |
| Aircraft and spacecraft | 0.0 | –0.1 | –0.1 | 0.0 | 0.0 | –0.1 | 0.1 | 0.2 | 0.1 | 0.1 | –0.1 | 0.0 | 0.0 | –0.1 | 0.0 | 0.0 |
| Pharmaceuticals | 0.3 | 0.3 | 1.0 | 0.7 | –0.6 | 1.7 | 2.0 | 0.3 | 0.1 | 0.2 | –0.1 | 1.0 | 1.0 | 4.4 | 0.8 | 0.4 |
| Office, accounting and computing machinery | 1.3 | 1.0 | 0.2 | 1.2 | 1.0 | –0.9 | –1.1 | –0.5 | –0.5 | –0.2 | –0.4 | –3.4 | –0.8 | 0.3 | 0.4 | –1.0 |
| Radio, TV and communications equipment | 0.2 | 0.1 | 0.1 | 0.1 | 0.5 | –0.1 | –0.2 | 0.0 | –0.1 | –0.1 | 0.1 | 0.0 | 0.1 | –0.1 | 0.1 | 0.0 |
| Medical, precision and optical instruments | 0.1 | 0.0 | 0.1 | 0.1 | –0.1 | 0.3 | 0.3 | 0.3 | –0.1 | 0.1 | –0.3 | 0.0 | 0.2 | 0.8 | 0.1 | 0.0 |
| **Medium-high-technology products** | **–0.2** | **0.4** | **–0.7** | **0.0** | **1.0** | **–0.8** | **0.1** | **0.7** | **0.2** | **0.9** | **0.0** | **–2.1** | **0.1** | **1.6** | **0.0** | **0.0** |
| Other electrical machinery and apparatus | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | –0.1 | 0.0 | –0.2 | 0.0 | 0.0 | 0.0 |
| Motor vehicles, trailers and semi-trailers | –0.1 | –0.1 | –0.5 | –0.4 | 0.6 | –0.4 | –0.6 | 0.0 | 0.4 | 0.4 | 0.4 | –0.3 | 0.8 | 1.0 | –0.2 | 0.3 |
| Chemicals excl. pharmaceuticals | –0.1 | 0.1 | –0.3 | 0.1 | 0.2 | –0.4 | 0.5 | 0.9 | –0.1 | 0.5 | –0.3 | –0.4 | –0.3 | 0.2 | 0.0 | 0.1 |
| Railroad equipment and other transport equip. | 0.0 | 0.0 | –0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Other machinery and equipment | 0.0 | 0.4 | 0.2 | 0.4 | 0.2 | –0.1 | 0.0 | –0.2 | –0.1 | 0.0 | –0.1 | –1.5 | –0.2 | 0.3 | 0.1 | –0.3 |
| **Medium-low-technology products** | **0.1** | **0.2** | **0.1** | **0.8** | **0.2** | **0.0** | **–0.1** | **–0.3** | **–1.0** | **–0.4** | **–1.4** | **–0.7** | **–0.6** | **1.3** | **0.2** | **–0.7** |
| Rubber and plastics products | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | –0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | –0.1 | 0.0 | 0.0 |
| Other non-metallic mineral products | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Building and repairing of ships and boats | 0.0 | 0.1 | –0.2 | 0.1 | 0.1 | –0.1 | 0.0 | 0.1 | 0.1 | 0.0 | –0.1 | –0.1 | –0.2 | –0.2 | 0.0 | 0.0 |
| Basic metals | 0.1 | 0.0 | 0.2 | 0.7 | –0.2 | 0.2 | 0.0 | –0.3 | –1.1 | –0.4 | –1.2 | –0.5 | –0.3 | 1.5 | 0.1 | –0.6 |
| Fabricated metal products, excl. machinery | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | –0.1 | 0.0 | 0.0 | 0.0 | –0.1 | –0.1 | –0.1 | –0.1 | 0.1 | 0.0 | –0.1 |
| **Low-technology products** | **1.3** | **–0.7** | **–0.3** | **1.1** | **0.2** | **0.2** | **0.6** | **0.5** | **0.4** | **0.1** | **0.1** | **0.3** | **0.5** | **–0.2** | **0.4** | **0.3** |
| Other manufacturing and recycling | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | –0.1 | 0.3 | 0.2 | 0.0 | 0.1 | –0.1 | 0.0 | –0.2 | 0.0 | 0.1 |
| Wood, pulp, paper and printed products | 1.9 | –0.2 | –0.1 | 0.9 | 0.1 | 0.1 | 0.8 | 0.0 | –0.6 | –0.2 | –0.1 | –0.2 | 0.1 | 0.2 | 0.5 | –0.2 |
| Food products, beverages and tobacco | –0.4 | –0.5 | –0.3 | –0.1 | –0.1 | 0.3 | –0.2 | 0.0 | 0.0 | 0.1 | –0.2 | 0.2 | 0.1 | 0.2 | –0.2 | 0.1 |
| Textiles, textile products, leather and footwear | 0.0 | 0.0 | 0.2 | 0.3 | 0.2 | –0.2 | 0.1 | 0.2 | 0.8 | 0.2 | 0.3 | 0.4 | 0.3 | –0.3 | 0.1 | 0.4 |
| **Total** | **3.2** | **1.3** | **0.5** | **3.9** | **2.1** | **0.3** | **1.8** | **1.1** | **–1.0** | **0.7** | **–2.0** | **–4.8** | **0.4** | **8.0** | **1.9** | **–0.9** |

1. Simple average.
*Source:* OECD, *ITCS Database* and Secretariat calculations.

## Table 3.A1.5. **Breakdown of geographical structure effect**

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | Average[1] 1996-2002 | Average[1] 2003-2008 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| United Kingdom | 0.3 | 0.9 | 0.6 | –0.1 | –0.8 | 0.4 | –0.2 | –0.8 | –0.3 | –1.0 | –0.4 | 0.0 | –1.0 | –0.2 | 0.2 | –0.6 |
| United States | –0.1 | –0.7 | –0.4 | –0.5 | –0.3 | 0.3 | 0.2 | 0.5 | –0.1 | 0.0 | 0.0 | –0.2 | –0.2 | –0.1 | –0.2 | 0.0 |
| Belgium-Luxembourg | 0.0 | –0.1 | 0.1 | –0.5 | –0.2 | 0.1 | 0.2 | 0.1 | 0.3 | –0.4 | –1.0 | 0.3 | –0.4 | 0.1 | –0.1 | –0.2 |
| Germany | –0.2 | –0.2 | 0.2 | –0.2 | –0.2 | 0.0 | –0.1 | –0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | –0.1 | 0.0 |
| France | –0.2 | –0.2 | 0.2 | 0.0 | –0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | –0.1 | 0.0 |
| Italy | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Netherlands | 0.0 | 0.0 | 0.1 | 0.0 | –0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Spain | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | –0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | –0.1 | 0.0 | 0.0 |
| Switzerland | 0.0 | 0.0 | 0.0 | 0.0 | –0.1 | 0.1 | –0.1 | 0.0 | –0.1 | –0.1 | –0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 |
| Japan | 0.0 | 0.2 | 0.1 | –0.1 | –0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.1 |
| Other European OECD | –0.3 | –0.2 | –0.2 | 0.1 | 0.1 | –0.1 | –0.1 | –0.4 | –0.2 | –0.2 | –0.3 | –0.4 | –0.1 | 0.3 | –0.1 | –0.3 |
| Other non-European OECD | 0.0 | 0.1 | 0.2 | –0.2 | –0.3 | 0.0 | –0.1 | 0.0 | –0.1 | 0.0 | –0.1 | 0.0 | –0.1 | 0.0 | 0.0 | 0.0 |
| BRIC | –0.2 | –0.1 | 0.3 | 0.2 | –0.3 | –0.4 | –0.7 | –0.9 | –0.5 | –0.6 | –0.5 | –0.1 | –0.6 | –1.4 | –0.2 | –0.5 |
| East Asian[2] | 0.1 | 0.3 | 1.4 | –0.2 | –0.4 | 0.3 | 0.0 | –0.1 | 0.0 | 0.0 | 0.1 | 0.1 | –0.1 | 0.0 | 0.2 | 0.0 |
| Rest of the world | –0.2 | –0.1 | 0.0 | 0.7 | 0.0 | –0.3 | 0.0 | –0.2 | –0.5 | –0.5 | –0.7 | –0.8 | –1.1 | 0.3 | 0.0 | –0.6 |
| **Total** | **–0.9** | **–0.2** | **2.6** | **–0.8** | **–3.2** | **0.6** | **–1.0** | **–1.9** | **–1.5** | **–2.8** | **–2.9** | **–0.8** | **–3.7** | **–1.0** | **–0.4** | **–2.3** |

1. Simple average.
2. Thailand, Singapore, Malaysia, Indonesia and Philippines.
*Source:* OECD, *ITCS Database* and Secretariat calculations.

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