Quarterly Economic Observer

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NERI Nevin Economic Research Institute

About NERI and this publication

The Nevin Economic Research Institute (NERI) has been established to provide information, analysis and economic policy alternatives. Named in honour of Dr Dónal Nevin, scholar, trade unionist and socialist who gave a life of service to the common good, the Institute aims to undertake research that will be of relevance to the Trade Union movement and the general public across the island of Ireland.

This is the first Quarterly Economic Observer (QEO) of the Institute. The purpose of the QEO is to provide regular, accessible and timely information and commentary so as to equip trade unions and others in articulating and advancing a new economic paradigm where the old has failed.

This report has been prepared by staff of the Institute. The analyses and views expressed in this publication do not necessarily reflect those of the Irish Congress of Trade Unions or the unions supporting the work of the Institute.

Further information about NERI may be obtained at our website
www.NERInstitute.net

The Nevin Economic Research Institute

Quarterly Economic Observer

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Executive Summary

> *"We believe that the economic crisis provides us with a unique opportunity to invest in Ireland's strategic infrastructure. There is huge spare capacity in the economy, with a large pool of skilled and un-skilled unemployed workers." (Fine Gael, NewEra, 2009: 3)*
>
> *"We believe it is economic nonsense, when unemployment is so high and private investment has collapsed, to cut back on productive public investment. We cannot keep chasing the economy down by simply focusing on raised taxes/decreased Government spending." (Fine Gael, NewEra, 2009: 4)*

Economic recession has impacted severely on the economies of both parts of the island. Fiscal austerity pursued in Dublin and Westminster and reinforced by a coordinated contractionary policy across the European Union is leading to continuing stagnation in the domestic economies in both parts of Ireland. The recession takes its toll on people – especially those facing further cuts in living standards and loss of jobs. The latest IMF forecasts for unemployment indicate a rate in excess of 10% of the workforce in the Republic until at least 2017 (International Monetary Fund, 2012).

Various agencies and commentators, including the National Competitiveness Council, the OECD and the European Commission, have identified telecommunications, energy and water infrastructure as key weaknesses for the economy of the Republic and sources of high cost for businesses. To this may be added the provision of a public, universal service of early childhood care and education, lifelong learning and health.

Established targets for a reduction in energy consumption based on imported fossil fuels must be adhered to. Public and private investment in new sources of energy are urgently needed to avoid a disruption in fuel supply arising from sudden economic or political turbulence which would leave both parts of Ireland extremely exposed.

There is an urgent need to generate hope through investment in people, communities and skills. This is the surest way in the long-term to restore confidence – in countries that flourishes economically and socially and that can trade and pay their way in the world.

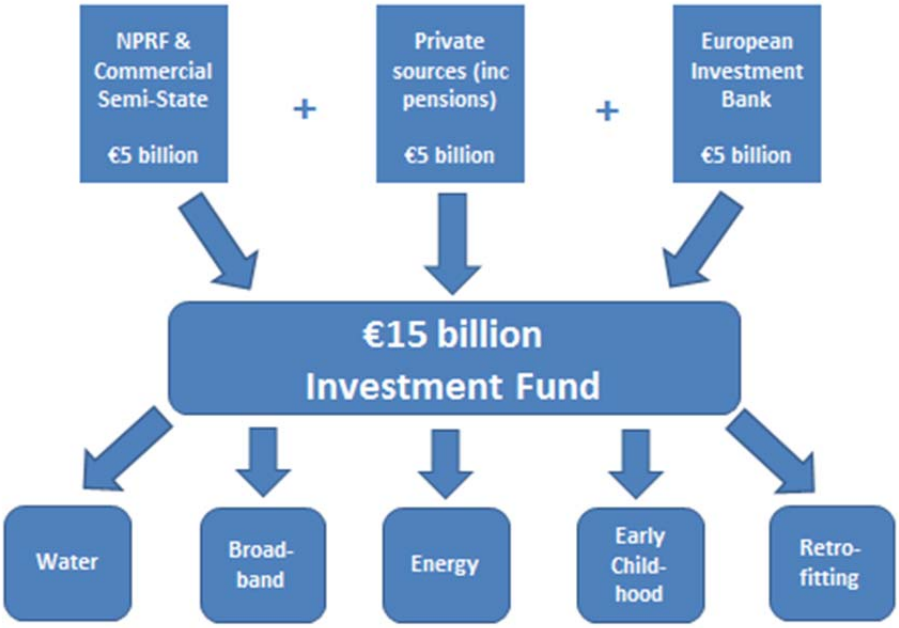
In this Quarterly Economic Observer we propose a targeted, frontloaded, strategic and temporary investment of €20 billion over five years – €15 billion in the Republic and €5 billion (=£4.2 billion) in Northern Ireland – to begin to reverse the negative impacts of fiscal austerity. It is not suggested that this policy initiative would solve the problem of unemployment immediately or that it would secure full economic recovery.

However, together with other policy measures, it would help to re-start domestic economic activity, meet vital long-term infrastructure needs, give people greater hope and make serious inroads into long-term, structural unemployment.

The funds for such a stimulus can be sourced from a mix of public, private and European/International sources with no additions to General Government Debt and with a likely lowering in the public sector deficit as a result of higher revenues and lower payments as unemployment falls. An overview of how a five-year investment stimulus might be funded and targeted is provided in the diagram below.

Overview of a Five-Year Capital Investment Stimulus

– sources and uses (Republic of Ireland)



1 Overview of Recent Economic Trends

Some recent economic trends are presented for both parts of Ireland and the United Kingdom in Table 1. The impact of a severe recession may be seen in the sharp increase in unemployment allied to a contraction in total output in all jurisdictions. Unfortunately, it has not been possible to calculate Gross Domestic Product for Northern Ireland. Instead, a measure of Gross Value Added is used[1].

Table 1. Some key economic trends in Ireland and the UK

		2007	2008	2009	2010	2011*
Total Employment	ROI	69.2	67.6	61.8	60.0	59.2
(% of Working Age Population)	NI	66.9	66.4	63.8	65.1	67.5
	Irl	68.5	67.2	62.4	61.4	61.5
	UK	71.5	71.5	69.9	69.5	70.3
Unemployment	ROI	4.6	6.3	11.9	13.7	14.4
(% of labour force)	NI	3.9	4.4	6.5	7.2	7.2
	Irl	4.4	5.8	10.4	11.8	12.3
	UK	5.3	5.6	7.6	7.8	8.4
GDP	ROI	5.2	-3.0	-7.0	-0.4	0.7
(% volume change for each year)	NI^	3.0	-2.7	-5.1	0.4	-
	UK	3.5	-1.1	-4.4	2.1	0.8

Source: ROI: Eurostat.
NI: Northern Ireland Statistics and Research Agency (NISRA) Monthly labour market report Feb 2012 and Office of National Statistics, UK (ONS).
Gross Value-added data (NI) is sourced from ONS regional trends series. GDP data for UK is from the Treasury.

Notes: * provisional data.
NI^ - output is measured as Gross Value Added.
ROI – Republic of Ireland; NI – Northern Ireland; Irl = ROI + NI; UK – United Kingdom
Total employment refers to all persons in employment (ILO definition) aged 15-64 as a proportion of all persons aged 15-64. Unemployment is calculated on an ILO definition basis and refers to persons aged 15-74.

The recession which began in 2007 has impacted severely on both economies of the island of Ireland. In the Republic, Gross Domestic Product (GDP) is estimated to have declined in real terms by 11.6% between the final Quarter of 2007 (peak) and the final Quarter of 2011[2]. By a narrower definition of income, Gross National Product (GNP) declined by 16.7% over this same period. The combined impact of suppressed growth in world markets, cuts in public expenditure, lower investment, declining living

[1] Gross Value Added excludes government taxes and subsidies.
[2] Unless otherwise stated changes in national account aggregates are seasonally adjusted and based on estimated volume changes.

standards and rising unemployment has led to a historically unprecedented contraction in the domestic economy of the Republic.

In the Republic total final domestic demand (personal consumption, government consumption and investment all combined) fell by 26.0% in real terms between the last Quarter of 2007 and the fourth Quarter of 2011. According to the latest provisional CSO data there has been a drop in both GDP and in GNP in the last two quarters of 2011 – pushing the Republic back into recession for the first time since 2009. As growth in international trade slows down and the Eurozone economies re-enter recession the domestic economy continues to contract.

The story of recent economic trends in the Republic is a tale of two very separate developments contained within aggregate headline figures:

- The strong performance of exports and their contribution to a relative stabilisation in GDP between early 2010 and mid-2011 – cancelling out the negative impact of domestic demand on GDP trends over that period; and
- The disastrous and continuing collapse in domestic demand and associated increases in unemployment and under-employment.

The most recent signals in relation to the European and world economies are of concern. The IMF has forecasted a decline in GDP in the Eurozone area while other analysts have significantly downgraded their forecasts for 2012 and 2013. The crisis in the Eurozone continues unabated. The Ratings Agency, Standard and Poors, have commented in a recent review of Eurozone countries (13 January 2012):

> *we believe that a reform process based on a pillar of fiscal austerity alone risks becoming self-defeating, as domestic demand falls in line with consumers' rising concerns about job security and disposable incomes, eroding national tax revenues.*

The gamble currently followed in Europe is to get most or all countries to shrink public sector deficits and debt levels in the hope that, somehow, market and consumer confidence can grow. However, this risks being self-defeating. All countries cannot export their way out of recession at the same time. To attempt this would be a modern version of 'beggar thy neighbour' through domestic deflation and internal devaluation allied to external market capture. With depressed aggregate demand and a coordinated contraction across European states there is every likelihood that GDP will flat-line if not decline in many member states this year – the Republic of Ireland likely to be one of them. Little or no growth means that public sector debt is likely to grow

further as GDP growth falls short of real interest rates and government deficits remain high. It is possible that continuing sharp fiscal contraction may lead to diminishing returns in deficit reduction as further contraction in the domestic economy adds to further erosion in the revenue base and additions to spending that cancel out part of the impact of discretionary fiscal adjustments.

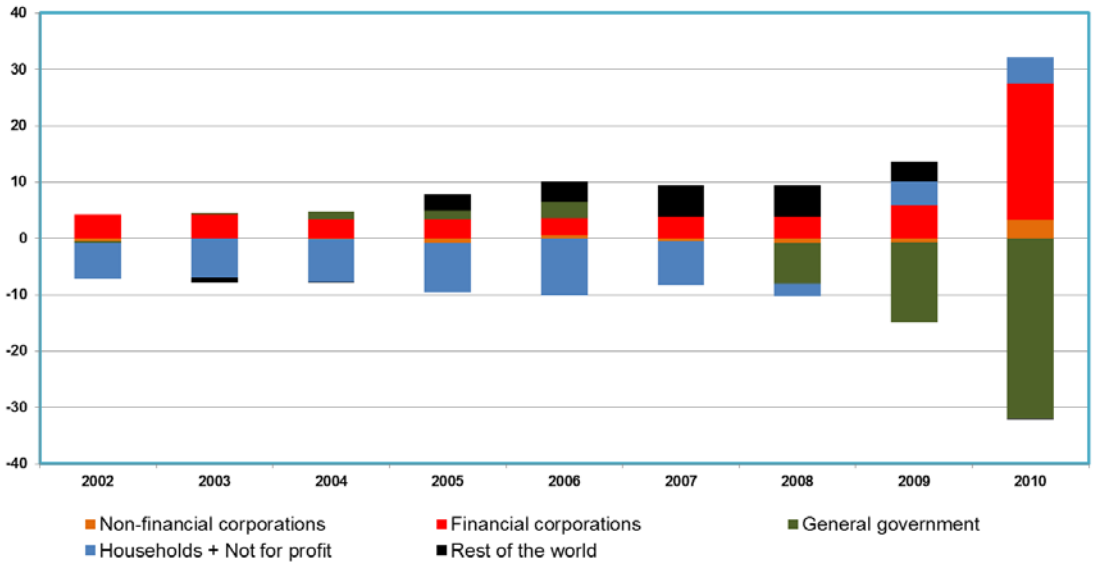
The debate about the current economic crisis has focussed too narrowly on the state of public finances and the implosion of banking – vital and critical as these are. Clearly, the prospects of sustained economic recovery have been seriously undermined to the extent that a dysfunctional banking system continues to drag down Governments across Europe and spook markets in the process. However, the crisis must be understood as a complex interaction between a highly unstable – and at times – 'out-of-control' global financial system, fragile domestic economies, large and unsustainable imbalances - trade, capital and private sector – together with a shortfall in demand for labour. Large levels of public sector borrowing reflect recession and not the other way round. Spain and Ireland – to take two of the more fragile EU economies – entered the current crisis with low levels of net public debt. Large and stubbornly high public sector deficits in many OECD countries mirror large net savings by households and the corporate sector as the latter deleverage or postpone consumption or investment due to uncertainty. 'De-leveraging' is a process whereby households and business spend less than they earn in income in a given year to pay off a stock of debt (mortgages, loans and other liabilities).

The great recession of 2008 triggered by an international crisis of finance capitalism had the effect of switching the investment and savings behaviour of households in the Republic. Households and businesses sought to lower their debt levels and are much less inclined to spend. From net borrowers during the boom of 2002-2007 households and businesses became net savers following the crash just as, at the same time, Government became a net borrower (Chart 1). A lot of funds were travelling in both directions from and to abroad – inward through loans to banks who in turn lent to households and businesses – and outward as investment in shares and other assets.

To form an overall picture Chart 1 presents data on the net savings of different actors in the economy of the Republic: (i) 'rest of the world', (ii) households (including not-for-profit institutions serving households which cannot be disaggregated from households), (iii) general government, (iv) non-financial corporations and (v) financial

corporations. For some sectors the balance of spending and income is positive: income exceeds spending and the sector is a net saver or lender to other sectors. In 2010, the net saving sectors were households and non-financial and financial corporations. The huge net saving by financial corporations in that year reflects the enormous one-off transfer of capital from general government to the financial corporate sector. Up to 2008 households were net borrowers while financial corporations were net savers because of lending to households. general government was close to balance in most years up to 2007. Then there was a recession with a rising public sector deficit as the domestic economy began to contract sharply. The 'rest of the world' shows the balance of payments in and out of the economy taking account of all types of payments for goods, services and capital flows. For most years the 'rest of the world' has shown positive net saving (in 2010 it was approximately zero) – indicating that the Republic of Ireland was 'living within its means' for most years prior to and after the recession.

Chart 1. Sectoral Balances as % of GDP – Republic of Ireland



Source: Eurostat online database for financial accounts

The large general government deficit therefore mirrors the collapse in domestic consumption and investment along with a large surplus of domestic savings recorded for both households and corporations. The net lending balance of each sector is part of an interlinking set of 'identity equations': net lending by one sector must be offset by net borrowing in another. For further details on this see section 5.1 in the Appendix.

When there is a shortfall in private sector investment there is a case for increased public sector investment not only to maintain growth potential in the economy but also make up for the gap left by the retrenched private sector. It is sometimes assumed that cutting back on public expenditure – current and capital – will help to 'crowd in' private demand. The rationale offered for this view is that consumer and investor confidence grows as greater 'order' is placed on public finances especially as taxes are moderated and spending curbed. The evidence for public expenditure as crowding out private expenditure is thin especially in the context of recessions and high savings ratios in the household and business sectors. The hoped-for 'expansionary fiscal contraction' is failing to materialise.

An alternative approach informed by a Keynesian framework emphasises the role of Government in taking the lead to kick-starting the private economy through an appropriate fiscal stimulus allied to other policy measures. According to this latter view, as the private sector contracts, more government spending is needed – and not less – to make up the difference until such time as a highly indebted private sector has 'deleveraged' itself and can re-enter a growth phase.

The large 'underlying' public sector deficit in the Republic (estimated at just over 10% of GDP in 2011) has a number of components: rising debt interest payments that have to be paid out of current Government revenue (constituting approximately one third of the deficit in 2011), a 'cyclical' component which reflects the impact of recession-induced falls in revenue and additional expenditure on social transfers and a 'structural component' which reflects a permanent on-going gap between expenditure and revenue even after the economy might recover from recession in the longer-term. Estimating the split between cyclical and structural is complex and contested territory. Recent calculations made by the European Commission indicate a cyclical component to the Government deficit in the Republic of Ireland of approximately 1.2% points of GDP in 2011 leaving a structural component of approximately 9.1% points which includes debt service (European Commission, 2011: 189). In estimates made by the Department of Finance (2011: D.23) the cyclical component diminishes as the 'structural deficit' defines from just 8.6% in 2011 to an estimated 3.7% in 2015 leaving a primary surplus of 2.8% in 2015 or 2.0% when the cyclical component is factored in. A major driver of both the headline general government deficit and the 'structural deficit' which is the focus of attention in the European Fiscal Compact is the rising level of payments of interest on government debt. This is projected to rise from 3.3% of GDP

in 2011 to 5.7% in 2015 (on the assumption of annual GDP growth of 2.4% in 2013 and 3% in following years).

The devastating social, economic and political impact of unemployment – especially youth – is not matched with a European-wide strategy of sufficient scale, detail and coherence to address it. This is in sharp contrast to the detailed attention and rule-making devoted to lowering public deficits. The focus of much public debate in Europe has switched back and forth between unsuccessful attempts to fix banking and then public finances and then again banking. Missing is the emergence of a clear 'lender of last resort' allied to a 'employer of last resort' strategy to stem the rise in unemployment and under-employment. At risk, here, is the future of the European project – a project founded on cross-European solidarity, equality and respect.

The only way out of this 'debt trap' is for the public sector to act as investor of last resort. Whether this comes from quantitative easing, borrowing or redistribution of public expenditure it can be used to kick-start economies, generate employment and provide hope – some hope for those shut out from employment opportunities.

A prudent fiscal approach is required to allow for a significant temporary public sector deficits providing a breathing space for domestic activity to recover. Fiscal retrenchment by government that feeds into an already retrenched private sector greatly risks adding to the spiral of contraction and thereby embedding a high level of government debt as a proportion of a depressed and stagnant level of GDP. We believe that the current 'pro-cyclical' fiscal policy being pursued in most European Union member states is the wrong response. Enshrining implausible and contested measures of structural public sector deficits into primary legislation across Europe will not help address the root causes of the current crisis.

A number of options to reduce the public sector deficit will be considered in detail in our next Quarterly Economic Observer in the summer of 2012. This report focusses on one option – increased targeted investment in capital infrastructure in a way that boosts growth, jobs and Government revenues.

2 Projections of GDP and Unemployment to 2014

Forecasts of economic activity into the future are fraught with difficulty due to the huge uncertainty with regard to the economy at global and national levels. At best it is possible to project future developments for GDP, employment and unemployment on the basis of econometrical models using a range of assumptions on factors 'outside the model' – such as trends in world export markets, currency exchange rates and interest rates on loans. Any model of economic behaviour is shaped by the evidence of past relationships over a long period of time. However, past relationships do not necessarily provide a reliable guide to future developments.

A number of agencies, in the Republic of Ireland, undertake economic forecasting based on different methodologies. Recent economic forecasts have shown considerable variability both ex-ante and ex-post. For example, forecasts made prior to 2010 in respect of 2010 varied from a worst-case projected change in GDP of -2.5% (IMF) to a best-case of -0.3% (NCB). The outturn rate of change was -0.4%. On the other hand all forecasts bar that of the EU Commission and NCB for 2011 proved unduly optimistic as growth fell below 1%. Recent forecasts for growth in 2012 vary from 0.3 (NCB) to 1.3 (Department of Finance). Looking out to 2013 and beyond most forecasts are agreed on an annual growth rate of between 2 and 3% per annum. While all forecasts beyond the immediate future are subject to considerable uncertainty it is now open to question that such levels of growth are likely given the downturn in international economic activity experienced in the first half of 2012. The medium-term outlook for Europe is clouded by continuing uncertainty around the Euro as well as the continuing negative impact of fiscal austerity in many key EU economies.

Parallel to sluggish growth in GDP is an expected higher level of unemployment in 2012 compared to 2011 according to forecasts by the IMF, EU Commission and Central Bank (Table 2b). The most recent ESRI Quarterly Economic Commentary (February 2012) projects a fall in total employment in 2012 and again in 2013.

Table 2a. Overview of recent projections of GDP (Republic of Ireland)

	2010	2011	2012	2013	2014
Outcomes	-0.4	0.7			
Department of Finance	-1.3	1.7	1.3	2.4	3.0
Central Bank	-2.3	2.4	0.5	2.1	-
EU Commission	-1.4	0.9	0.5	2.0	-
IMF	-2.5	2.3	0.5	2.0	2.7
OECD	-2.3	1.5	1.0	2.4	-
ESRI (QEC)	-0.25	2.25	0.9	2.3	-
Ernst and Young	-0.6	1.1	0.5	3.1	3.4
Goodbody	-1.1	1.2	0.7	1.6	-
NCB	-0.3	1.0	0.3	2.0	2.0

Source: Department of Finance: Economic and Fiscal Outlook (Dec. 2011); Central Bank: Quarterly Bulletin (Jan. 2012); European Commission: Economic Adjustment Programme for Ireland – Winter 2011 Review (Mar. 2012); IMF: Fifth Review Under the Extended Arrangement and Request for Rephasing of the Arrangement (Feb. 2012); OECD: Economic Outlook 90 (Dec. 2011); ESRI: Quarterly Economic Commentary (Feb. 2012); Ernst and Young: Eurozone Forecast (Dec. 2011); Goodbody: Ireland – 2012 Outlook (Jan. 2012); NCB: Irish Economy Monitor (Mar. 2012).

Notes: Data sources for Outcomes: Central Statistics Office and Eurostat.
Previous forecasts for 2010-2011: Forecasts made at the end of the previous year (2009 and 2010, respectively, for 2010 and 2011)
Current forecasts for 2012-2014 as of March 2012 or the most recent period.

Given the modest rates of growth that are projected it is not surprising that unemployment should remain stubbornly high.

Table 2b. Overview of recent projections of Unemployment (Republic of Ireland)

	2010	2011	2012	2013	2014
Outcomes	13.7	14.4			
Department of Finance	13.2	13.2	14.1	13.5	12.9
Central Bank	14.0	13.3	14.6	14.1	-
EU Commission	14.0	13.5	14.5	13.7	-
IMF	15.5	13.0	14.5	13.7	13.0
OECD	14.0	13.6	14.1	13.7	-
ESRI (QEC)	13.75	13.5	14.0	13.7	-
Ernst and Young	13.2	12.7	13.9	13.2	12.7
Goodbody	14.1	13.3	14.3	13.4	-
NCB	13.0	13.0	14.2	13.6	12.4

Source: See table 2a.
Notes: See table 2a.

The capacity to meet the various macroeconomic targets set out in the governments *Medium-Term Fiscal Outlook* is very much linked to a series of assumptions regarding international economic growth and the behaviour of the domestic economy. The

fragility of these assumptions has been highlighted in part 5 of the November 2011 *Medium-Term Fiscal Outlook* which assessed the impact of a 1% change in world economic growth on Ireland's economic prospects.

The results found that a 1% reduction in world growth would lower the real level of Ireland's GDP by 0.9% in the first year and by 1.3% in the fifth[3]. Lower growth, internationally and nationally, would also negatively impact on the size of the budget deficit with a 1% decline in world growth increasing the budget deficit by 0.3% of GDP in the first year, by 0.5-0.6% of GDP in each of the subsequent four years and by a cumulative 2.5% of GDP over five years[4]. These findings highlighting the dependency of economic growth in the Republic on world economic conditions and the fragility of many of the budgetary and adjustment targets; particularly given the low domestic growth rate projections for 2012/2013 and the instability of the international economy.

Table 2c provides an overview of recent economic forecasts for the Northern Ireland economy. Growth in Gross Value Added (the nearest proxy to GDP) is expected to remain sluggish for the remainder of this year.

Table 2c. Overview of recent projections of Gross Value Added (GVA) (Northern Ireland)

	2012	2013	2014	2015
Ernst & Young	1.1	1.8	2.0	2.0
PWC	0.6	0.6	-	-
Oxford Economics	0.3	1.6	-	-

Source: Ernst and Young: Economic Eye, Winter 2011; PWC: Economic Outlook Nov 2011; Northern Bank/Oxford Economics: NB Quarterly Economic Overview Q4 2011..

Notes: Gross Value Added differs from GDP by the difference between taxes and government subsidies.

In the draft budget for Northern Ireland 2011-15 the block grant for investment or Capital Departmental Expenditure Limit (DEL) is to be reduced sharply over the budget horizon. In real terms and accounting for a small shift of some Current to Capital expenditure the total capital budget will fall cumulatively by £1.7 billion over

[3] These sensitivity results are broadly symmetric such that a 1% increase in world growth would raise the level of GDP by 0.9% in year one and by 1.3% in year five.

[4] These sensitivity results are broadly symmetric such that higher world economic growth would boost the economy and reduce the deficit.

the four years. To put this in context the Capital DEL for 2011/12 was £1.2 billion[5] (Northern Ireland Executive, 2011).

[5] http://www.northernireland.gov.uk/index/work-of-the-executive/budget2010.htm

3 Investment for Jobs and Growth Must be a Priority

The current levels of unemployment are unacceptable and constitute a serious threat to social cohesion and not just the sustainability of future public finances. Failure to make serious inroads on the level of unemployment will cost more in the long-run than any short-term savings in public expenditure arising from further fiscal austerity. The biggest single obstacle to creating employment is the depressed state of the domestic economy in both parts of Ireland. The way to tackle this problem is through economic growth, investment and job creation which can generate new revenue and save on spending by getting people back to work. The market, alone, cannot be expected to fill the gap in investment and consumption left as a result of the sharp contraction from 2008 onwards. There is, therefore, an urgent need to address the deficit in demand for work through a balanced investment stimulus that is state-led or facilitated but that also mobilises investment from private sources. Section 3.1, below, outlines the extent of the deficit in demand for work while Section 3.2 identifies areas of key infrastructural need and deficiency. In Section 3.3 we propose a targeted investment stimulus that can begin to make an inroad into unemployment and reverse the impact of some of the damaging cuts in public spending that have already taken place.

3.1 The biggest crisis relates to demand in the labour market

Underlying the fiscal deficit is a deficit in demand for human capital. The waste involved in unemployment of people is a scandal. It exacts long-term damage on individuals and communities. The true extent of unemployment is under-stated by the 'standardised unemployment rate' of 14.4% in February 2012. The total level of under-employment in the Republic is currently estimated by the CSO at 25% of the 'wide' Labour Force in the final quarter of 2011[6]. The most recent forecasts of the IMF project an unemployment rate which is still above 10% in 2017 indicating a continuing high level of long-term 'structural' unemployment (International Monetary Fund, 2012:11).

[6] The measure used (S3) equals {unemployed plus marginally attached plus others not in education who want work plus underemployed part-time workers} as a percentage of {the Labour Force plus marginally attached plus others not in education who want work. http://www.cso.ie/en/media/csoie/qnhs/documents/calendar/tableS7.xls

Within the ranks of the unemployed there those who are (i) young (ii) migrant and (iii) otherwise members of the 'precariat' understood to include people with little or no job security as well as those with little or no prospect of employment any time soon. Not counting under-employment the estimated monthly unemployment rate, in the Republic of Ireland, was 14.8% in January 2012 while it was 10.1 in the EU17[7]. Using qualitative research, Delaney, Egan and O'Connell in their recent Geary Institute working paper document the devastating psychological impacts of unemployment on people. Not only are there large financial, health and well-being impacts arising from prolonged unemployment but research by Clark and other labour economists indicates a type of permanent scaring effect arising from periods of prolonged unemployment. And there are huge, possibly hidden and difficult to quantify social and economic costs stretching over the coming decades.

The rate for under-25s, in the Republic, is now 29.6% - notwithstanding the increase in educational participation and net outward migration since the onset of recession[8]. An important EU2020 headline indicator used by the European Union is the estimated proportion of young people aged 18-24 who have left school early and are not currently in education and training. In 2010 the overall proportion of 18-24 year olds who were early school leavers was 10.5% in the Republic of Ireland. This compares favourably to an average of 14.1% for the EU27. However, behind this average is a truly shocking statistic[9]. Using online CSO data for the final quarter of 2011 in the Quarterly National Household Survey it is possible to estimate that 47% of males in the cohort who have left school early and who were not in education and training were unemployed and a further 30% of the cohort were 'economically inactive'. By contrast, 59% of females who were early leavers and not in training were 'economically inactive' and 21% were unemployed. Only 23% of males and 23% of females were in employment. The combined proportion of unemployed for males and females was 36%. Although the total group of early leavers not in training is relatively small (one in ten of those aged 18-24) they are highly vulnerable.

If the current crisis of unemployment is primarily due to a deficiency in supply of labour at going market wage rates and associated income and benefit incentives then, inevitably, the focus of public policy and community actions will be mainly on concepts

[7] See Indicator 2.1 in the Quarterly Economic Facts www.NERInstitute.net
[8] Indicator 2.2 in Quarterly Economic Facts
[9] See Table S9b available online from www.cso.ie

and measures involving 'activation', up-skilling, incentivisation of work, 'reforms' of the labour market and 'flexibility' with regard to hours of work and work practices. Supply-side measures to tackle unemployment are an important component of an overall strategy. However, there is ample evidence that the rapid decline in employment in 2008-2009 was associated with a collapse in domestic demand – especially but by no means exclusively in the construction industry. Addressing the deficiency in what economists call 'Aggregate Demand' is a greater *immediate* priority than measures to enhance skills and match supply and demand at the micro-level – important and welcome as many of these are. A long-term strategy of investing in social and economic infrastructure is also a justification for demand-led initiatives to address unemployment because not only will it directly generate employment but it will also lay the foundations for an improvement in competitiveness and productivity in the longer-term.

It is essential not to divorce the issue of unemployment from the wider policy of fiscal austerity and associated contraction in domestic demand. The focus is misplaced on incentivising employers to hire additional workers whether through tax relief or changes to wages and employment conditions as well. Likewise, measures to incentivise persons in receipt of social welfare to take up employment either through disimprovements in welfare rates or eligibility or various measures to compel the unemployed to undertake training or accept job offers miss the point that there is a fundamental problem of demand. The available data on job vacancies do not confirm this 'supply-side' interpretation. A combination of data on unemployment and job vacancies indicate a ratio of 26 unemployed persons for each job vacancy in Ireland compared to an EU-27 average ratio of 7[10].

The most effective way to address unemployment is through an increase in all elements of final demand and not just net exports. This calls for a combination of policy approaches including selective and targeted investment in infrastructure against a background of under-utilisation of capacity across the economy. There is an absence of evidence that additional tax reliefs for the wealthy or a lowering of employer PRSI or VAT in selected sectors can generate growth and employment.

[10] Indicator 2.6 in Quarterly Economic Facts www.NERInstitute.net

3.2 Investment in social and economic infrastructure is urgently needed

The key to restoring public and private finances is to create employment. Employment creation will lift revenues to the State, save on social protection expenditure and generate consumer demand. The key to generating new employment is investment – investment in people, skills, new products and services. The public, private and voluntary sectors each have a role in helping to lift economic growth. The public enterprise sector, in particular, has a key role in helping kick start growth, lift confidence and complement the role of other sectors in partnership.

Many areas of social and economic infrastructure remain under-developed. There is a risk that by under-investing in needed infrastructure as a short-term cost-saving measure long-term harm is exacted on communities, businesses and society at large.

Capital investment should deliver three outputs for the economy:

1. A short-term stimulus to GDP associated with the investment expenditure and its multiplier effect in the domestic economy
2. A short-term creation of jobs associated with the investment expenditure and its multiplier effect in the domestic economy
3. A long-term increase in productive capacity, export competitiveness and social well-being.

While the first two of these outputs are desirable, in particular given the suppressed nature of domestic demand, the long-term objective of providing welfare enhancing returns to society should be the key criteria for assessing the appropriateness of capital investment programmes. In that regard, any investment strategy should undergo a Cost Benefit Analysis (required for all projects costing more than €30m) to demonstrate that it is in the long-term interest of society to make these investments (i.e. the benefits exceed the costs).

We propose a significant investment in infrastructure equivalent to an average additional injection of 2.5% of GDP over a five-year period. A possible additional investment schedule could include €3 billion in 2013; €4 billion in 2014, €3 billion in 2015; €3 billion in 2016; and €2 billion in 2017. This would allow for a phasing-in of investment following cost-benefit evaluation as well as a gradual phasing out towards the end of the period to avoid a negative shock to the economy.

Investment for greater productivity and competitiveness

Starting from a relatively low base in terms of the scale of capital infrastructure significant investment took place in the Republic over the period 1990-2007. In a review of capital investment and wealth in Ireland, a report by Davy Research concluded:

> *Estimates of the capital stock show Ireland lagging behind. Irish residents would hardly claim that this country is wealthier than other small euro-area countries such as Finland or Belgium. Infrastructure – roads, rail, schools, hospitals and telecommunications – is far superior in those nations, even though Ireland is not far behind in the income per capita table. Ireland misallocated investment in 2000-2008. Infrastructure should be far better than it is today. Capital stock soared by 157% in real terms in 2000-2008, but housing accounted for almost two-thirds of increase* (*Years of High Income Largely Wasted*, White, 2010)

Most of the capital expenditure in the period 2000-2008 was on housing and property. However, in addition to investment in the National Development Plan there were, also significant investments by commercial semi-state companies in infrastructure particularly in areas such as gas and electricity. Areas such as water and sewage treatment, roads and environmental protection were significantly improved. The new road infrastructure is one of the most visible signs of enhanced infrastructure.

Previously established targets for a reduction in energy consumption based on imported fossil fuels must be adhered to. Public and private investment in new sources of energy are urgently needed to reach the EU 2020 target of 16% for renewable energy as a proportion of gross energy consumption in the Republic[11] (and 15% for the UK). A disruption in fuel supply arising from sudden economic or political turbulence would leave both parts of Ireland extremely exposed. There is a need to start investing now in long-term energy alternatives.

With vision and innovative thinking it is possible to harness skills and natural resources to create new products and services and upgrade existing infrastructure in key areas of weakness. Some examples follow below.

Investing in water infrastructure

Harsh weather in the winter of 2010 across the island of Ireland has highlighted the poor state of water infrastructure in the Republic and Northern Ireland. Fine Gael in its New Era policy document of 2009 referred to Ireland's 'creaking' infrastructure. A

[11] The rate was 5% in 2009 in the Republic.

critical need arises in relation to the problem of leakage as well as the need to ensure adequate storage to meet sudden and unexpected needs arising from weather or other circumstances. Allied to this is the need to ensure adequate water quality and safeguarding of supplies at risk of contamination as a result of water-borne effluent.

Efficient use of water will create considerable long-term environmental savings and will have the capacity to create employment at both the delivery stage and beyond. Existing water mains and reservoirs urgently requirement upgrading. A programme of investment in new pipe-laying beneath potential frost level could be initiated. Due to the natural abundance of rainwater on the island measures could be taken to harvest this resource beginning with public buildings, schools, hospitals, local authority housing and motorways. Recent experiences of flooding point up the need for accelerated investment in flood defences, urban and rural drainage schemes and measures to better separate sewage and other effluent.

A recent report from the American Society of Civil Engineers (2011) highlights the importance of a clean and reliable water supply to the water-heavy industries like food and chemical manufacturing. At a time when we are trying to grow an agri-food sector and attract high end foreign direct investment in among other areas, medical and pharmaceuticals, it is dangerous to underestimate our water infrastructural deficits. Interruptions to the water supply can be very costly to business and that they might deter certain businesses from choosing Ireland as an industrial location. In both the Republic and Northern Ireland waste water is also an area with significant infrastructural deficits, particularly with some sewers dating from the Victorian era.

In Northern Ireland the true scale of the under investment in water became apparent over Christmas 2010 when many areas were without water supplies for up to 12 days. Water had to be imported from Scotland, a country experiencing much the same weather conditions. In the Republic the cold snap over the same period lead to temporary cuts to water supply in many areas. There was also the contamination crisis in Galway among other areas of the Western seaboard in 2007.

Investing in waste management

The management of all types of waste requires careful planning and long-term strategic investment. The State has an important role in overseeing the management and disposal of waste as well as ensuring an adequate physical infrastructure for the

treatment of waste. Waste management infrastructure is largely made up of landfills and recycling collection and sorting facilities. It is vital, as had been noted by the Environmental Protection Agency that waste prevention, resource conservation and eco-design become embedded, 'so as to assist in the decoupling of waste generation in Ireland from any future economic growth' (Environmental Protection Agency, 2011:13). More recently in a report on urban waste water discharge (Environmental Protection Agency, 2012) concluded that 46% of sewage treatment plants in urban areas failed to meet the EU urban wastewater treatment directive (UWWTD) or EPA guidelines. The EPA concludes that:

> *While Ireland continues to improve provision of secondary treatment for waste water this has not kept pace with the requirements of the UWWTD and the Water Framework Directive as the discharge of waste water with inadequate or no treatment is still evident. In addition, where the treatment is in place this has not always led to achievement of the quality standards set out by the UWWTD, and required by the Water Framework Directive. The reasons for this include inadequate capacity or the poor performance of the treatment plant. The implementation of the UWWTD requires one of the most substantial investments in the environmental sector. The benefits though extend beyond water quality, as clean water is a pre-requisite to our tourism industry, food production and other manufacturing.*

Investing in retrofitting of energy-inefficient buildings

It is cheaper to save energy than to buy it. Estimates of the number of energy-inefficient homes in both jurisdictions vary with some estimates putting the number at over one million in the Republic (Curtin, 2009:3). With the aim of upgrading 1.2 million homes, an annual investment of €1-1.5 billion over 12-15 years could sustain 23,000-32,000 construction sector jobs per annum over the period of investment. This could yield savings of €1.46bn per year in energy usage with a range of benefits including the alleviation of fuel poverty. The evidence suggests that average savings of over €1,000 a year per household are possible. In other words, energy savings for almost all householders will more than meet the cost of installing energy efficient fixtures. With these new loan schemes in place, there is enough spare capacity in the construction industry in the Republic to upgrade over 100,000 houses per annum. In Northern Ireland, it has been estimated by the Green New Deal Group that there are some 705,000 dwellings requiring an upgrade in Northern Ireland and that despite improvements over the past decade, over 90% of houses still fall some way short of the best energy performance standards.

There is a strong case for widespread adoption of 'deep retrofiting' with Government and its agencies taking the lead. If government can add to commercial demand for retrofits among the early adopters this could help overcome inertia in the market and built trust and confidence in deep retrofiting. A roll-out of 'deep retrofitting' facilitated with long-term, low-interest loans (e.g. from a State Investment Bank or the European Investment Bank) could target the following as priorities:

- public buildings;
- second-hand houses when bought and sold (with less interruption to occupants);
- local authority rented dwellings; and
- private rented buildings.

It is estimated that the cost of a deep retrofit per dwelling ranges from €5,000 to €15,000. The funding requirement could be up to €1billion per annum by 2020. Curtin and Maguire (2011) point out that:

> *To undertake just a superficial retrofit of one million homes would cost €3 billion, based on the current average spend per householder. Costs for raising the residential housing stock up to a C1 level on the Building Energy Rating are estimated to be more than €14 billion.*

A cost-benefit analysis of a domestic energy efficiency programme Clinch and Healy (2000) showed that the estimated energy savings, alone, would justify a domestic energy-efficiency programme, with additional health, comfort and emission reduction benefits. Since then the deterioration in the labour market, and increase in energy costs should further increase the benefits of such a programme.

Public Transport

Over the past decade Ireland's road and rail network has received significant investment resulting in a transformation of journey times, quality and capacity. Where opportunities for investment remain, these are concentrated in two areas:

- Road projects which have been identified by the Department of Public Enterprise and Reform and the National Roads Authority as investments which 'can serve to enhance competitiveness and improve enterprise conditions' (2011:15).

- Public transport projects which develop improved alternatives to private vehicle use and begin to minimise the reliance of the transport system on fossil fuel imports.

Of these options, the first has already been identified by government and its agencies and it is only the provision of available funding that is preventing their commencement. Where these projects have proven potential (a positive net present value for the excess of benefits over costs for the lifetime of the project) stimulus funding should be used and the projects undertaken. In the case of the second option, now is the time to undertake the key economic evaluation work for these projects, ideally so that they can commence from 2015 onwards if they are demonstrated to be worthwhile (benefits exceed costs). Such projects might include the electrification of the inter-city rail network, the addition of third track to the major rail lines on the outskirts of Dublin and the development of a comprehensive rural transport system frequently connecting rural communities to nearby towns and cities.

All-Island Energy Market

Northern Ireland is very heavily dependent on imported fossil fuels for its total energy requirements. This figure has been highlighted by the Green New Deal for Northern Ireland group, who argue that investment in renewable energy is a necessity and not a luxury. In order to meet EU requirements the UK must have 15% of energy from renewable sources by 2020, (Green New Deal for Northern Ireland) and this will require a long term effort in Northern Ireland. These statistics point to an enormous challenge for the Northern Ireland economy. Moreover the development of an all-island electricity market may be the most efficient, responsible and feasible solution to Northern Ireland's energy future. A single market makes sense as it will provide greater energy supply and security. The move will also incentivise the development on renewable energy north and south, as a much larger market will justify the cost of initial investment. Any move away from fossil fuels to domestically farmed renewable energy has obvious environmental benefits, with reduced carbon emissions etc. The economic benefit is important too: every pound diverted to renewable energy is money not spent on imports, going back into the Northern Ireland economy.

Capital investment in Education and Health

Demographic change will continue to place pressure on public services such as education and health. Major improvements have been made in the course of recent decades in the quality and extent of services. It would be regrettable if these gains were reversed for short-term fiscal reasons. The energy-saving and community benefits flowing from properly equipped and planned facilities could yield significant benefits justifying the initial outlay. Provision of primary health care in appropriate settings would save on health expenditure in the medium-term. Likewise, investment in early childhood education could yield significant returns in terms of child well-being, literacy, health and social inclusion over time (NESF, 2005). International research reviewed in the NESF report and elsewhere points to very high personal, social and economic returns to early interventions and provision that complement family nurture and care with benefits in the course of a child's life and transition to adulthood. The estimated net benefits per Euro invested vary from €4.60 to €7.10 depending on assumptions made (NESF, 2005:125-133). The returns to targeted pre-school investment in children at risk are particularly high.

Investing in broadband

There is a clear positive benefit from investment in next generation broadband. The National Competitiveness Council said that 'Ireland ranks poorly and lags behind in terms of upgrading the local broadband access network to fibre and on offering very fast broadband speeds over fibre', with Ireland ranking 14th of 28 OECD countries with regard to fibre connections as a percentage of total broadband connections (Forfás, 2011). In Ireland only 0.5% of connections are over fibre compared to an OECD average of 12% and 55% in Japan.

Estimated impact of a €15 billion investment shock

It is frequently assumed that the GDP and jobs 'multiplier' effect of additional investment in capital is low in Ireland. The evidence is suggests otherwise notwithstanding difficulties in measuring the impact using different methodologies and data sources over different time periods.

Aside from the immediate jobs and output gains of a capital investment stimulus there is a need to continually upgrade and renew social and economic infrastructure. Postponing capital investment is simply pushing up costs in the longer term and reducing potential economic growth. Waiting until economic recovery begins will be the wrong long-term decision. In other European countries of not too dissimilar population size or amount of GDP per capita: many areas of social and economic infrastructure are superior such in Belgium and Finland for example.

Table 3.2a. Estimated impact of a combined public, private and European investment stimulus of €15bn over five years

	2013	2014	2015	2016	2017
Additional Employment					
Additional numbers	46,052	64,353	54,451	55,040	43,127
% increase	2.4	3.4	2.8	2.9	2.3
Lower Unemployment					
Fall in unemployment %	-2.1	-2.3	-1.8	-1.2	-1.1
Additional GDP					
Additional € billion	4.639	7.219	7.084	7.830	7.203
% increase	3.0	4.5	4.3	4.6	4.1

Source: Calculated using HERMIN macroeconomic model. See O'Farrell forthcoming (2012)
Notes: The additional investment is based on €3bn in 2013, €4bn in 2014, €3bn in 2015 and €3bn in 2016 and €2bn in 2017.
The additional GDP calculations are in constant price terms.

We have used the HERMIN model to project the short-run impact of an investment stimulus on employment and GDP[12]. The Model uses a series of mathematical equations to estimate the impact of changes in underlying conditions and outcomes (for further discussion of HERMIN refer to Bradley, Whelan and Wright, 1995). The model makes use of historical data over a long period to estimate relationships. Due to uncertainty and volatility in underlying relationships especially since the onset of recession in 2007 all models are subject to qualifications in the short-run[13].

[12] The HERMIN macro model of the Irish economy is part of the Cohesion System of HERMIN models currently used by DG Regional Policy for the purposes of analysis of the impacts of Structural Funds on long-term development. We thank the Commission for permission to make use of the model for our work. All responsibility for such use and interpretations of the results is ours alone.
[13] As an alternative other methodologies may be used to estimate trends in employment, output and government finances in the short-term based on a simpler modelling approach and one which uses all the available evidence including judgement with regard to short-term policy shifts or other changes in the external environment.

There is a large and, sometimes inconclusive, literature on the extent to which capital investment impacts on output and jobs. Economists use the term 'multiplier' to estimate the impact of a given increase in government spending or cut in taxes on output. A technical elaboration is provided in section 5.2 in the appendix in the context of small open economies.

Reviewing the response of fiscal policy to the economic crisis in 2008, IMF staff, Spilimbergo, Symansky, Blanchard and Cottarelli (2008:21) concluded that:

> *A review of the literature suggests that there is a lot of heterogeneity across fiscal multiplier estimates, depending on the identifying assumptions, the type of fiscal policy, and the country of interest…..The most important result is that there is considerable agreement across models on both the absolute and relative sizes of different types of fiscal multipliers. Three other conclusions stand out. First, the size of many multipliers is large, particularly for spending and targeted transfers. Second, fiscal policy is most effective if it has some persistence and if monetary policy accommodates it. Third, permanent fiscal stimulus has significantly lower initial multipliers, and reduces output in the long run.*

At least two caveats are in order: (1) it is possible that with rising unemployment and spare capacity in economies that multipliers estimated in the past covering a long-period of time may underestimate the short-term positive impacts of a stimulus today and (2) the economy of the Republic of Ireland exhibits sharp differences with regard to the structure of economic activity and the import content of production and final demand across the economy. Hence, caution is required in concluding that fiscal multipliers in Ireland are necessarily low in general. A targeted and timely stimulus could boost domestic demand allowing sufficient space for the economy to breathe and for public finances to recover as employment rises. Specifically sectors where multipliers are likely to be higher than in the rest of the economy include education and tourism (Healy, 2010).

The possible scale of short-term direct job creation associated with undertaking an investment stimulus has been indicated in the Department of Finance's *Infrastructure Investment Priorities 2010-2016* document (2009:14-15). Table 3.2b reports the Department's findings of a survey to establish the employment intensity of capital investment and reports a range of between 8 and 12.

Table 3.2b. Estimated Labour Intensity of the Construction Phase of an Infrastructure Investment

Investment Sector	Jobs per €1 million invested
Health capital	12.0
Regional and local roads	11.5
National roads	10.0
Prisons	10.0
Schools	9.3
Housing	8.0
Public transport	8.0
Water services	8.0
Small-scare refurbishments, fit-outs etc	> average

Source: Department of Finance (2009:14-15).

In an ESRI Working paper (Bergin, Conefrey, FitzGerald and Kearney, 2010) the ESRI authors have used the HERMES macroeconomic model to estimate that the impact of cutting public investment by €1 billion euro was 7,000 jobs in the short run and about 4,000 jobs in the long run (over a 7 year period). These estimates are based on demand-side impacts and do not factor in the long-term capacity impacts arising from lower levels of capital stock which, according to the ESRI authors would be 'substantially greater than shown here' (Bergin, et al., 2010:18). However, the estimates do include both the direct and indirect job impact of cutting investment and seem to be broadly in line with the estimates shown in Table 3.2b albeit at the lower-bound end of projects shown. By contrast, the Construction Industry Council (2009) has estimated a short-term gain of 70,000 jobs as a result of an annual investment stimulus of €5 billion over three years (composed of 50,000 direct jobs and 20,000 indirect).

In evaluating the return on investment of this nature it is necessary to include not only the direct and indirect jobs created but the savings in cost to the exchequer of higher unemployment as well as the long-term capacity effect of investing in strategic infrastructure. Furthermore it is very likely that the output and employment impact of investment today is greater than was the case over a long period of observation when the relationship between investment and output/employment was estimated in the HERMES model.

A cross-country study of the economic impact of public investment by Pereira and Pinho (2011) using data for 12 Euro countries concludes that the impact differs

sharply across States. Ireland is among a group of five countries where public investment pays for itself as a result of higher output, tax revenues and employment. The study found that, in the case of Ireland, 84 'job-years' were created for an additional €1m in public investment as a result of direct and indirect effects (the latter through enhanced private sector investment and household consumption). The positive elasticity was towards the upper end of the range of values for the 12 Euro countries. They conclude that 'cuts in public investment are harmful for the economy and neutral from a long-term budgetary perspective' and 'public investment just pays for itself and therefore cuts are not an effective way of achieving long-term budgetary consolidation' (Pereira and Pinho, 2011: 11,15).

Some idea of the possible impact of an investment stimulus on GDP and employment may also be gauged from the Fine Gael *NewEra* document published in 2009.

Table 3.2c. Estimated Labour Intensity of the construction phase of an Infrastructure Investment

	Year 1	Year 2	Year 3	Year 4
Additional Investment New Era (€m)	950	2,400	3,300	4,300
Multiplier Effect of Additional Infrastructure Investment	1.00	1.50	1.80	2.20
Impact on GDP (€m)	950	3,600	5,940	9,460
Wage Share of Increased GDP (%)	50%	50%	50%	50%
Wage Share of Increased GDP (€m)	475	1,800	2,970	4,730
Average Wage (€)	45,000	45,000	45,000	45,000
Increased Employment	10,556	40,000	64,167	105,111
of which: direct *	10,556	26,667	36,667	47,778
indirect (spin-offs)	0	13,333	27,500	57,333

Source: Fine Gael *New Era* (Figure 2, page 12)
Note: * equivalent to 11.1 direct jobs per €1million of investment.

The additional employment estimates in Table 3.2c are described in the Fine Gael document as being:

> *based on conservative assumptions, drawn from empirical evidence of the economic impact of investment in construction and infrastructure. For example, empirical analysis of the Irish economy between 1970 and 2006 by Philip Lane of Trinity College finds that government investment has a positive "Fiscal Multiplier" that is well above unity: a given boost to public capital spending raises output by considerably more than the size of the injection. (Fine Gael, 2009: 12)*

The Fine Gael document goes on to estimate the likely benefits to public finance of investing in infrastructure (Table 3, Page 13). In the document it was claimed that an investment of €18bn would yield significant savings in public expenditure through lower social welfare and higher tax receipts.

4 Options for Obtaining Funds for Investment

Targeted public investment in key infrastructural areas can not only counteract the negative impacts of recession but lay the basis for recovery through activities that generate a pay-back over time. Some of the fruits of such investment will repay the cost of initial borrowing and deficit financing.

The *Exchequer Capital Investment Framework (2012-16)* (Department of Public Expenditure and Reform) envisages a spend from the Public Capital Programme of of €13.1bn over 4 years from 2013. The establishment of NewERA (the New Economy and Recovery Authority) and the Strategic Investment Fund in 2011 is very welcome. It will be necessary to build on these initiatives and expand the scale and ambition of these undertakings if we are to accelerate investment in much needed productive capacity and make a serious inroad into long-term structural unemployment. The establishment of a public Strategic Investment Bank should be fast-tracked to channel funds from sources such as the National Pension Reserve Fund into job-creating investment. However, these measures are not enough to stem the expected increase in unemployment in 2012 (and associated fall in total employment)[14]. A greater urgency around the problem of unemployment is needed. This needs to involve more specific jobs targets and policy measures to address the deficiency in demand for labour.

Currently there are 107,900 employed in the construction sector in the Republic. There is scope to increase this by 70,000 to bring the State into line with sustainable long-term average patterns of employment – a proposal consistent with that advocated in ESRI research (Morgenroth, 2009:10). Construction related work is needed in areas such as retrofitting, maintenance, building of new energy source facilities and social housing. The construction sector in Northern Ireland has, also, been badly hit since 2007 where the number of employee jobs has fallen by almost 26% up to 2011.

Given the scale of infrastructural needs outlined in section 3 and the urgent need to begin stemming the rise in unemployment expected in 2012 we propose an additional frontloaded, targeted, strategic and temporary investment of €20 billion over five years – €15 billion in the Republic and €5billion (=£4.2bn) in Northern Ireland. In the case of the Republic this volume of additional investment spread out over five years

[14] See Table 2b.

would represent an injection of approximately 2% of GDP per annum for five successive years. It would be necessary to phase out the stimulus gradually over time so that additional, but smaller, amounts are invested in years 4 and 5

An injection of a given amount of capital investment has a short-term impact on employment and outlook. A large amount of this disappears in the years following a removal of the injection. To smoothen the impact a phased rather than a sudden withdrawal of the stimulus may be desirable and feasible. In the example given in Table 3.2a the following timeline of possible additional investment is shown: €3 billion in 2013; €4 billion in 2014, €3 billion in 2015; €3 billion in 2016; and €2 billion in 2017.

Priority should be given to five priority areas: early childhood education and care, energy, communications, retro-fitting of buildings and water infrastructure to boost long term competitiveness and generate employment as well as invest in our children's well-being. It should be noted that this recommendation is less ambitious than that recommended by the Construction Industry Council in their submission to Government in 2009 (Construction Industry Council, 2009) as well as the proposals made by one of the Government parties in 2010 (Fine Gael, 2009).

The proposed Strategic Investment Bank should be brought forward to channel investment into priority projects. This should include funds for insulation and other energy efficient fixtures in buildings beginning with public buildings and facilities. The long-term savings in fuel costs could be used to repay borrowings. The money invested in such a programme could be recouped from businesses and consumers over a number of years out of the estimated fuel savings generated.

The Republic remains largely excluded from markets of sovereign debt for the immediate period. However, the options of sourcing funding whether by private companies or semi-state companies from sources outside the IMF-ECB-EU and the bond markets should be pursued. It may, also, be possible to tap a number of capital sources outside the normal depending on the nature of an investment proposal. A large-scale private investment in alternative sources of energy could be supplemented by a combination of domestic public sources, funds diverted from private Irish pensions invested abroad and funding sources outside the EU. It should be possible to draw on, and expand European Investment Bank funding for small and medium-sized

enterprises especially in areas of new green technology. Funds sourced from a mix of public, private and European/International sources could be obtained as follows:

Republic of Ireland

National Pension Reserve Fund (NPRF)

Currently there is over €5 billion in the National Pension Reserve (NPRF) discretionary portfolio[15]. We propose that €2 billion of the NPRF be directed away from overseas investment to a strategic investment fund focussed on lending to domestic infrastructure projects. In this way the NPRF assets would be maintained but directed to domestic activities whether in commercial public enterprise companies or in other enterprises. There may, also, be some scope for negotiating additional investment funds up to €1 billion within the current bailout envelope – there was agreement for borrowing and NPRF contributions of up to €85 billion and on current projections, less is expected to be drawn down than planned as the cost of repairing the bank balance sheets has so far been lower than the worst case scenario (International Monetary Fund, 2012: 30)[16].

Commercial Semi-State Company (CCSC) borrowing on capital markets

Borrowing for core activities is taking place and is not counted as part of General Government Debt. A specific amount could be put aside for a range of investment projects outlined in Section 3. Borrowing by utility companies is possible due to the relative stability and predictability of their future earnings in the long-run. It should be possible, therefore, to leverage funding from additional domestic savings, international capital markets and the European Investment Bank. A re-launch of a New National Recovery Solidarity Bond would tap the huge amount of annual savings by some households and corporations. An additional €2 billion could be borrowed from domestic and international sources in this way for commercially viable projects.

[15] The value of the NPFR discretionary portfolio was €5.4 billion at 31 December 2011 according to the *NTMA Results and Business Review* (page 4).
[16] The total projected lending is €67.4 billion over 2011-2013 (Table 6, page 30)

European Investment Bank

An additional exchequer-funded project could be matched with funds from the European Investment Bank (EIB) and the Council of Europe Bank (CEB) to invest in infrastructure. EIB and CEB, together, could match a total of €5 billion (including funds via NPRF and CCSCs). In 2010 only €241 million or 0.3% of all EIB loans were for projects in the Republic. The figure for Northern Ireland was €17 million (European Investment Bank, 2011:221). Forfás has pointed to the scope for greater take-up of these loans on the part of the Irish authorities (Forfás, 2011).

The European Investment Bank has a broader responsibility for many areas of social investment. For example since 1997 the EIB has had a mandate to invest in human capital which has enabled it to fund projects in the health and education sectors. The bank's commitment to human capital has led it to fund projects under the broad heading of 'knowledge economy'. The investment in healthcare can range from university hospitals to investing in sustainable communities, another of its more recent investment priorities. Examples of EIB loans to member states that could be considered here include the following loans that were made in 2010:

- €197m for a combined-cycle gas turbine power plant in Co. Cork.
- €44.2m for the construction of 23 post-primary and four primary schools in the Republic.
- €105m for demolition, upgrading, refurbishment and construction of social housing in the Republic.
- €200m to help provide 30 lower secondary schools in Lille, France, that were accessible for those with limited mobility, and with high performance IT facilities. The schools are very energy efficient.
- €142.5m for the roll-out of high speed broadband in the Netherlands.
- €450m for the construction of a windfarm in Belgium. This was part of a non-recourse financing package of €1.3 billion in which two credit export agencies and seven commercial banks also participated.
- Loans for a photovoltaic (solar power) plant in Italy, the renewable energy investments were financed using project bonds with a special purpose financial vehicle.

Private Sources of Funding

The Irish Association of Pension Funds has estimated that the combined value of Irish pension funds is in excess of €70bn with the vast majority of this invested abroad, there remains a real opportunity to attract some of this funding into Irish projects and assets.

As an alternative, it is proposed that the levy be waived if a pension fund invests a fixed multiple of the 0.6% in the Republic, that is currently taxed on the value of Irish pension funds. Exemption would have to be conditional on investment in approved activities. The commitment by the Department of Public Expenditure and Reform (2011:37) to examine the option of diverting private pension funds more towards the domestic investment economy is noted and welcomed:

> *There has been ongoing engagement with potential private sector investors – including pension funds - during 2011 and the Department of Public Expenditure and Reform will now step up efforts in this regard.*

These sources of funding could be combined with inward overseas investment in long-term projects with high returns such as in renewable energy.

Northern Ireland

As a regional economy of the United Kingdom, fiscal policy is set externally at Westminster. The UK government is pursuing a fiscal strategy of retrenchment with a view to eliminating the structural public sector deficit by the end of the current Westminster parliament in 2015. However, the UK Chancellor acknowledged in the November 2011 Autumn statement, that the deteriorating economic situation has pushed this target to back to 2015/16 at least. Northern Ireland will be disproportionately affected by the cuts to public sector jobs. This, allied to the reduction in the block grant and the effects of welfare reform, due to be introduced later in 2012, will put a huge strain on the domestic economy of Northern Ireland.

The Green New Deal

In the UK, the New Economics Foundation has promoted the Green New Deal. The Green New Deal Group has outlined plans to restructure the financial, taxation and energy systems to create low carbon job-rich economies. The scope extends to Northern Ireland where the Green New Deal Group brings together among others, the CBI, ICTU, Friends of the Earth and the Ulster Farmers Union. The group highlights an infrastructural deficit in Northern Ireland that is likely to be accentuated by the onset of climate change. The group have made a series of proposals on retro-fitting of public buildings and social housing. While most of these projects will require initial state led investment the overwhelming majority of that capital is recouped through lower energy bills. The Sustainable Development Commission (2009: 33) has stated that,

> *Although there are some outliers, there is a reasonable consensus from these estimates that a (UK) stimulus package of up to £30 billion a year could create at least 800,000 jobs.*

The group estimate that this could mean up to 24,000 jobs for Northern Ireland alone.

Local Councils

Unlike the Northern Ireland Executive, local councils in Northern Ireland have the authority to issue bonds under the Local Government Act of 1972. In order to boost productive capacity of the local economy councils could borrow for investment. This is not an entirely new idea as was evidenced by the investment plan unveiled by Belfast City Council in February 2012. Belfast city council aims to fund this with a below inflation 2.6% increase in non-domestic rates, and this money is ring-fenced for capital investment. Domestic rates have also been capped at £400,000 on the value of a home and lifting this could also boost funds for investment.

Regional Rate

This is a rate levied by the executive in conjunction with local government rates. This has been capped at £400,000 on the value of a property and the rate has been frozen for nearly 4 years. Over £600m is raised per year. Inflation has averaged at 3% over the three years since the rates freeze. The Executive could introduce a sub-inflation increase in the rate to fund increased investment but could also replicate local councils by removing the £400,000 cap.

European Investment Bank

The EIB has provided loans for road building and has matched funding for private sector initiatives in the past in Northern Ireland, however the latest report for EIB projects in the UK 2010 (European Investment Bank, 2010) contains no new projects for Northern Ireland whereas €241m worth of funding was made available to the Republic (EIB, 2010). Additional monies raised through regional or council rates could be matched with funding from the EIB. EIB also has a mandate to provide low interest rate loans to the SME sector through local partner commercial banks. This is already taking place in the Republic with the EIB granting €150m each to AIB and Bank of Ireland for this purpose. They require that the loans must be made to small and medium sized enterprises for investment and the banks must pass on the preferential interest rate. Similar arrangements are in place in Northern Ireland through both Bank

of Ireland and Ulster Bank. Out of the total UK figure of £4 billion £350m has been dispersed throughout the UK already though exact Northern Ireland figures are not as yet available. EIB president Werner Hoyer has stated recently that countries like Ireland that have suffered somewhat disproportionately, would be examined more closely to determine a perhaps more generous funding provision[17].

Pension Funds (Northern Ireland)

Similar to the Republic there has been a commitment by the executive to examine the possibility of directing funds from private and public sector pension funds directly into infrastructure projects. The Northern Ireland Local Government Officers Superannuation Committee pension fund is the largest pension fund in Northern Ireland worth nearly £3.7 billion. This process is already happening throughout the UK. In early the two large pension funds, the National Association of Pension Funds and the Pension Protection Fund launched a funding drive which aims to secure up to £4 billion for investment in UK infrastructure projects next year. The discussion has highlighted the possible creation of a state led investment bank that could issue bonds which could be converted to equity on completion of the project.

[17] http://www.irishtimes.com/newspaper/finance/2012/0217/1224311915381.html

5 Conclusion

This first report of the Nevin Economic Research Institute (NERI) has focussed on the need to begin the reverse some of the negative impact of continuing fiscal austerity following the collapse in the domestic economy of Northern Ireland and the Republic in recent years.

The key to recovery in employment and output is a combination of many policies including raising skills, better harnessing of natural resources, investing in social and economic infrastructure and laying the basis for a stronger indigenous sector exporting services and products on global markets. However, policies to help both economies on the island to grow must be linked to a concerted European effort to reverse the disastrous policies of austerity currently being pursued by governments across Europe.

The Nobel prize winning economist, Joseph Stiglitz, has appropriately summarised the recent coordinated European austerity measures as a 'mutual suicide pact'. We agree with the view that Keynesian economics demands flexibility for Governments to coordinate in such a way as to sustain aggregate demand and address trade, capital and public finance imbalances. The wrong time to impose greater austerity through fiscal or monetary tightening is when there is a large output gap and deficiency in demand across the major European markets.

Future generations will not thank this generation of leaders and policy makers if there is a failure to address the inter-related problems of debt, unemployment and economic stagnation. Courage, imagination and innovation are called for in meeting the biggest economic challenge in generations.

We welcome a debate on these questions and issues.

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Appendices

5.1 One Person's Borrowings is Another Person's Savings

Total income in an economy (Y) is the sum of household final consumption (C), Investment in capital goods by businesses, households or government (I), Government consumption (G) and the difference between total exports and imports (X-M). The formal identity is given in national accounts as follows:

[1] $Y = C + I + G + (X - M)$

Another way of breaking down total income is as follows:

[2] $Y = C + S + T$

where C is final household consumption, S is total savings and T is total taxation

Putting [1] and [2] together gives the following:

[3] $C + S + T = Y = C + I + G + (X - M)$

Or, more simply:

[4] $S + T = I + G + (X - M)$

By re-arranging equation [4] it is possible show three sectoral balances – private domestic, government and external flows:

[5] $(S - I) = (G - T) + (X - M)$

Equation [5] signals that total net domestic savings (the excess of private savings over investment) must equal the public sector deficit (assuming that the value of G is greater than T) plus the excess of exports over imports. Where X is greater than M non-residents are net savers as there is a net financial flow into the economy from outside.

When countries run large external deficits ($X - M < 0$) together with a public sector deficit which though large was not as big as the trade deficit there must be a private deficit. With the onset of recession in 2008 public sector deficits increased in most countries including the Republic of Ireland. Since 2009 the level of private net savings increased sharply in the Republic of Ireland as households and businesses 'de-leveraged' (reduced spending and paid off some of their large accumulated debt). At

the same time, the public sector balance turned from being positive in the mid-2000s to largely negative after the onset of recession. Government is said to be 'living beyond' its means in the sense that, temporarily annual outgoings fall short of annual incoming due to depressed economic conditions and revenue flows and increased social protection expenditures. The flip side of this negative 'net saving' by public authorities is a large increase in net savings by households and businesses as well as an improvement in the net inflow of payments as imports remained depressed and exports increased. It is not true that the Republic of Ireland is 'living beyond its means' when all three sectoral balances are contrasted. In fact, the balance of payments has been in surplus. A key challenge for public policy is to 'recycle' deficits by boosting domestic consumption and investment while reducing over time the public sector deficit.

5.2 Multipliers in a Small Open Economy

The 'multiplier' is a measure of how much additional income is created as a result of an injection of demand in the economy. If, for example, a Government increases its spending on construction of schools by €100m this additional spending will employ additional workers who would have been otherwise unemployed. These workers spend additional money in retail outlets which, in turn, generates additional income for shops and boost spending by businesses selling goods and services to newly employed construction workers. Businesses also sell goods and services to construction firms and this increases employment and income in the supplying firms. As additional income is generated in a ripple effect, tax receipts increase for government through additional income taxes and VAT receipts. Government finances also benefit as a result of lower expenditure on social welfare and medical cards associated with having more people unemployed. Some of the additional income and spending will be 'leak' out of the domestic economy through imported goods and services. It is estimated that this leakage is considerably higher in small open economies such as the Republic of Ireland or Northern Ireland. Some of the additional expenditure also 'leaks' out in the form of taxes paid to Government. In practice there is no one multiplier for an economy. Some sectors of economic activity are likely to exhibit a high multiplier while others show a lower value. In sectors where companies are heavily engaged in importing and re-exporting large volumes of goods or services the multiplier impact of an injection of expenditure is likely to be relatively low. On the other hand, in sectors such as retail, construction and catering the multiplier impacts

are likely to be higher than in other sectors. The following is a mathematical equation used by economists to estimate the value of the multiplier in the case of additional Government investment in capital goods:

$$\Delta y = \Delta I * \frac{1}{(1 - b_C)(1 - b_T) + b_M}$$

Where Δy = additional output or GDP, ΔI = additional capital investment, bc = marginal propensity to consume, bt = income tax rate, bm = marginal propensity to import.

The value of the multiplier is sensitive to the business cycle because in economies where labour and capital are under-employed due to the effects of recession any new additional spending is likely to have a greater impact as rising demand has the effect of bringing more unemployed resources into use. In economies operating at full capacity or near full capacity any additional investment stimulus would have less impact due to supply constraints. The higher the marginal propensity to consume (how much people spend, on average, for an additional Euro or pound of income) the higher the impact of an investment stimulus on output. The marginal propensity to consume tends to be higher for low-income households. Hence fiscal policies which favour low-income households tend, other things the same, to have a greater impact on output.

5.3 Supplementary Data

Table 5.3a. Overview of key economic trends since the onset of the current economic crisis – Republic of Ireland

	2007	2008	2009	2010	2011
Total Expenditure					
Consumption €m	93,872	95,671	85,214	82,592	n/a
Investment: private and public €m	49,500	38,834	23,029	17,222	n/a
Government current spending €m	28,530	29,955	28,503	26,222	n/a
Exports €m	152,389	150,181	145,902	157,673	n/a
Imports €m	135,328	133,877	121,037	127,901	n/a
Domestic Demand €m	171,902	164,460	136,746	126,036	n/a
Total Income					
GDP €m	189,933	179,990	160,596	155,992	n/a
GNP €m	163,413	154,673	132,233	128,207	n/a
Income from Agriculture €m	3,276	2,850	2,188	2,732	n/a
Income non-Agriculture: Wages €m	78,545	81,397	73,625	68,772	n/a
Income non-Agriculture: Other €m	67,123	56,783	49,458	53,155	n/a
Employment					
Labour Force	2,253,100	2,266,600	2,202,300	2,150,500	2,120,300
Labour Force Participation Rate %	64.6	64.2	62.5	61.2	60.4
Employment	2,149,800	2,107,100	1,922,400	1,851,500	1,805,500
Employment full-time	1,764,000	1,712,700	1,510,300	1,436,800	1,383,700
Employment part-time	385,800	394,400	412,100	414,700	421,800
Underemployment	n/a	92,900	108,900	108,800	135,700
Unemployment	103,300	159,400	279,800	299,000	314,700
Unemployment %	4.6	7.0	12.7	13.9	14.8
Long-term Unemployment	103,300	159,400	279,800	299,000	314,700
Long-term Unemployment %	1.3	1.7	3.2	6.5	8.4
Migration					
Immigration	109,500	83,800	57,300	30,800	42,300
Emigration	42,200	45,300	65,100	65,300	76,400
Net Migration	67,300	38,500	-7,800	-34,500	-34,100

	2007	2008	2009	2010	2011
Public Finances					
Total General Gov. spending €m	69,535	76,958	78,502	104,187	69,707
Total General Gov. revenue €m	69,655	63,751	55,719	55,342	54,182
General Gov. Balance €m	128	-13,196	-22,795	-49,903	-15,615
General Gov. Debt nominal €m	47,361	79,837	104,782	148,074	163,800
General Gov. Debt % GDP	24.9%	44.4%	65.2%	94.9%	105.5%
Earnings and Prices					
Average earnings € per week	n/a	n/a	694.69	684.00	693.40
Average earnings % change	n/a	n/a	n/a	-1.5	1.4
Average earnings % change – private sector	n/a	n/a	n/a	-0.7	2.0
Average earnings % change - public sector	n/a	n/a	n/a	-3.6	-0.5
Inflation CPI %	4.9	4.1	-4.5	-1.0	2.6
Inflation HCPI %	2.8	3.1	-1.7	-1.6	1.1
Inequality and Poverty					
Gini coefficient	31.7	30.7	29.3	33.9	n/a
Quintile ratio	4.9	4.6	4.3	5.5	n/a
Relative poverty %	16.5	14.4	14.1	15.8	n/a
Consistent poverty %	5.1	4.2	5.5	6.2	n/a
Deprivation rate %	1.8	13.8	17.1	22.5	n/a

Sources: CSO Quarterly National Accounts; CSO National Income and Expenditure; CSO Quarterly National Household Survey; CSO Population and Migration Estimates; CSO Earnings and Labour Force Costs; CSO SILC Preliminary Report 2010; Department of Finance Budget 2012 Economic and Fiscal Outlook; Eurostat on-line database (accessed March 2012).

Notes: Earnings data: for Q3 in all years, 2011 are preliminary estimates, series commences in mid-2009.
National accounts data reported at current market prices.
Underemployment calculation - new series from 2008.
Labour market data is for Q3 of each year.

Table 5.3b. Overview of key economic trends since the onset of the current economic crisis – Northern Ireland

	2007	2008	2009	2010	2011
Total Expenditure					
Consumption £m	-	-	-	-	-
Investment: private and public £m	-	-	-	-	-
Government current spending £m	-	-	-	-	-
Exports £m	5,469	6,187	5,142	-	-
Imports £m	4,851	5,562	5,014	-	-
Domestic Demand £m	-	-	-	-	-
Total Income					
GVA £m	28,192	28,827	28,256	28,162	-
GNP £m	-	-	-	-	-
Income from Agriculture £m	481	590	407	-	-
Income non-Agriculture: Wages £m	15,398	15,930	15,949	16,702	-
Income non-Agriculture: Other £m	-	-	-	-	-
Employment					
Labour Force	816,000	823,000	804,000	829,000	846,000
Labour Force Participation Rate	71.6	71.4	69.1	70.8	72.2
Employment	783,000	786,000	754,000	772,000	785,000
Employment full-time	611,000	608,000	585,000	589,000	608,000
Employment part-time	171,000	174,000	167,000	180,000	172,000
Underemployment	16,000	17,000	27,000	27,000	32,000
Unemployment	33,000	37,000	50,000	57,000	61,000
Long-term Unemployment	12,000	13,000	15,000	22,000	29,000
Long-term as % of Unemployed	36.4	33.9	29.8	37.8	47.7
Migration					
Immigration	19,369	15,350	12,690	-	-
Emigration	11,332	11,039	11,229	-	-
Net Migration	8,037	4,311	1,461	-	-

	2007	2008	2009	2010	2011
Public Finances					
Total General Gov. spending £m	16,790	17,832	18,898	19,294	-
Total General Gov. revenue £m	-	-	-	-	-
General Gov. Balance £m	-	-	-	-	-
General Gov. Debt nominal £m	-	-	-	-	-
General Gov. Debt % GDP	-	-	-	-	-
Earnings and Prices					
Average earnings £ per week	391.30	406.40	422.90	416.60	426.70
Average earnings % change	3.0	3.9	4.1	-1.5	2.4
Average earnings % change – private sector	-	-	-	-	2.0
Average earnings % change - public sector	-	-	-	-	3.9
Inflation CPI %	-	-	-	-	-
Inflation HCPI %	-	-	-	-	-
Inequality and Poverty					
Gini coefficient	-	-	-	-	-
Quintile ratio	-	-	-	-	-
Relative poverty %	-	-	-	-	-
Consistent poverty %	-	-	-	-	-
Deprivation rate %	-	-	-	-	-

Sources: HMT Public Expenditure Analysis 2011; DETI Labour Market Bulletin; ONS Regional Portrait; ONS Regional Trends; NISRA National Statistics; LFS Historical Data Series 1995-2011; LFS Quarterly Supplement; NISRA Northern Ireland Migration Flows; NISRA Annual Survey of Hours and Earnings.

Note: Where cells are blank the data are unavailable.

Notes

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