Unite Submission to the Department of Jobs, Enterprise and Innovation

In this submission we examine the issues of employment, the role of the state in the economy, labour costs, competitiveness and, especially, the indigenous sector with some discussion of overall corporate investment, profits and multi-national involvement in the economy.

The debate over enterprise strategy – in particular, the indigenous sector – is often conducted in the abstract. Assertions are made without any reference to facts or evidence. Pithy maxims and anecdote takes the place of analysis. We discuss the Irish context as if that were the only context – without taking a broader look at the experience of other countries in our peer group.

In this submission we focus on the context, the background and European comparisons. While we make a number of recommendations, they don't immediately impact on policy (for policy, this submission can be read alongside our pervious submission in which we put forward policy recommendations for discussion).

Out purpose here is to ground the debate in evidence. In short, if we don't ask the right questions, we won't be able to discover the right answers.

Most of all, we need an open and honest dialogue – not only about our potential strengths, but our numerous deficits. That should be the starting point for all policy formulation.

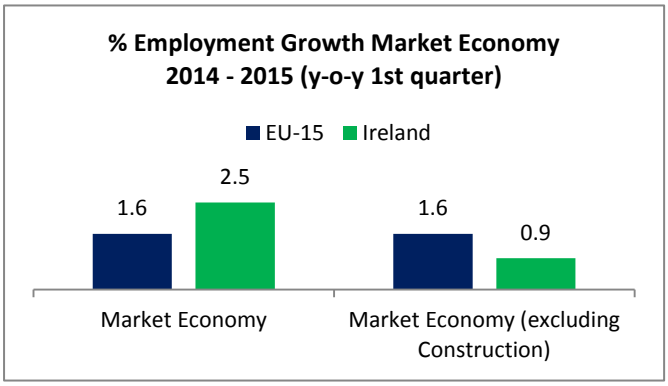
JIMMY KELLY

Regional Secretary
UNITE

1. Employment in the Irish Economy

Much commentary has been given over to the return of substantial employment growth in the economy. However, much of this is the product of the statistical realignment conducted by the CSO following the 2011 Census. Indeed, the CSO warned against interpreting trends during this period of alignment. That employment in 2013 purportedly rose by over 40,000 during a domestic demand recession is strongly counter-intuitive. However, we don't propose to go back over these arguments. We can examine employment growth since the end of the CSO's quarterly realignment (2013 4th quarter) to make a robust assessment. There are imbalances emerging.

(a) Recent Employment Growth in the Market Economy



In the last year-on-year measurement (end first quarter of this year) Irish employment in the market economy was 2.5 percent, compared to 1.6 percent in the EU-15. However, when construction is excluded, Irish market economy employment disappointed – growing at substantially less than in the rest of the EU-15 (0.9 percent as opposed to 1.6 percent, respectively. [1]

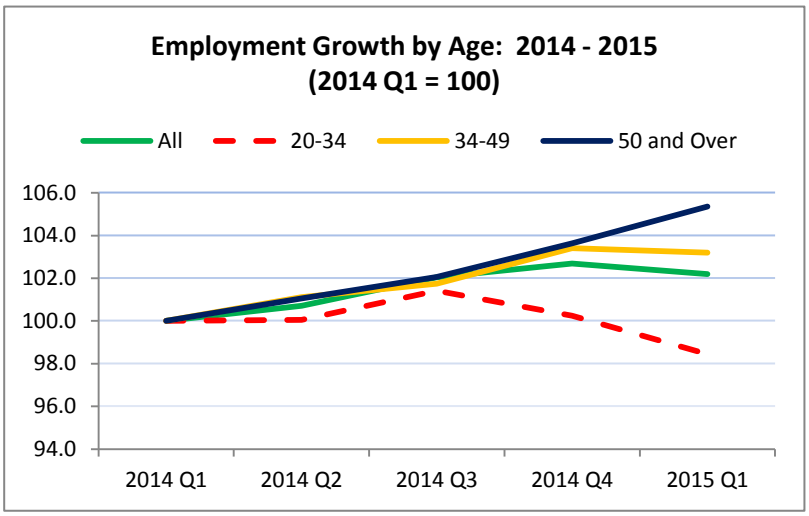
This was a deterioration from the previous year-on-year quarterly growth which showed market economy jobs growth (excluding construction) to be fractionally ahead of the EU-15. The fact is that during the last year it has been construction that has driven market economy jobs growth – making up two-thirds of all jobs growth. While it is too early to assess whether this is a trend, it should be of concern.

(b) Employment Growth Among Young People

Another imbalance is the continuing jobs recession among young people (under 35 years).

Total employment among under-35s has fallen over the last year. All the employment growth has occurred among higher age groups; in particular, 50s and over.[2]

This is a continuation of a long-term trend. After seven years, total employment stands 10 percent



[1] Eurostat: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsq_egan2&lang=en
[2] Eurostat: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsq_egan&lang=en

below pre-crash levels. However, for young people, it is 32 percent below pre-crash levels. Employment levels have more than recovered among older age groups, being above pre-crash levels.

(c) Employment Growth by Region

First identified by the Nevin Economic Research Institute, there is a continuing imbalance in employment growth in some regions. The Dublin and Mid-East regions still account for 55 percent of employment while the West remains in a jobs recession, with a loss of 8 percent over the last year. The West and Mid-West regions remain below 14 percent below the pre-crash levels, compared to 10 percent at national level and 8 percent in Dublin.

What is missing in all this data is the inability to distinguish between employment in the multi-national and indigenous levels. As driving indigenous employment is key to the development of long-term sustainability, it would be an advantage to assess the degree to which indigenous employment is contributing to that economy – at both sectoral and traded sector.

Unite recommends that the Department present regular data on employment growth in the indigenous sector at regional, sectoral and traded sector.

- **Unite recommends that the Department request the CSO to do a regression analysis on the 2013 employment growth data in order to ascertain to what degree and to what extent there has been employment growth. This will assist in identifying trends with the recent data.**

2. The Role of the State in Employment

The 2012 Action Plan for Jobs states:

'Governments do not create jobs, businesses create jobs.'

This is not only untrue; it denies the reality of a modern market economy. There are three issues here.

(a) Actual Employment

- The Irish public sector employs approximately 300,000 people in a range of necessary services to a modern economy: education, health, housing, security, arts and recreation. Without the services of the public sector, there would be an emaciated and dysfunctional private sector. This direct employment makes up over 15 percent of all those at work – a substantial contribution employment
- The public sector payroll comes to approximately €15 billion – or over 20 percent of all wages in the economy. This considerable spending power creates further employment in the domestic economy – in the retail, hospitality and all business sectors. Without this spending power, private sector employment would collapse.

- The public sector purchases billions of Euros from the private sector in order to produce public services (government consumption). This consumption directly creates thousands of jobs – and, indirectly, promotes even more purchasing power in the economy which in turn results in further employment.
- In addition to this, there are approximately 50,000 people employed in public enterprise. This, again, directly contributes to employment. In addition, the spending power of these workers, along with the consumption of these enterprises (their purchases of goods and services from the private sector).
- Further, there is the role of subsidies to private sector companies (e.g. Enterprise Ireland), both direct and indirect, on which thousands of private sector companies depend on.

There is also the role of the public investment portfolio discussed below.

The fact is that the government or the public sector (including public enterprise) makes a substantial contribution to employment and is inextricably intertwined with private sector employment. So intertwined are these sectors that there is no demarcation between the two; hence, the term 'mixed-economy'. To deny the role of the state in this process is to deny the reality of our economy.

(b) Demand Management: Creating and Destroying Employment

Governments create and destroy jobs through their fiscal and economic policies. To take one example: public investment.

- The Department of Finance has produced an employment multiplier for public investment, showing that approximately 10,000 direct jobs are produced through €1 billion public investment. This, however, doesn't count the level of induced employment (demand created by the purchasing power of those employed). Therefore, the level of jobs created would be much higher.[3]

On the Department's own estimate, the current Government has destroyed over 12,000 direct jobs (and, indirectly, thousands more) since 2011 from the cuts in public investment (gross fixed capital formation). Were the Government to reverse this, 12,000 direct jobs could be created.

In another example, the reduction in public sector employment by 30,000 jobs has also contributed to depressing employment; and this doesn't include the impact on demand in the economy which results in private sector job losses.

These two measures show the real and direct impact on employment from fiscal policy – both negative and positive. Both the Nevin Economic Research Institute (NERI)[4] and the Economic and Social Research Institute (ESRI)[5] have produced studies showing the employment impact of a range

[3] Department of Finance: Infrastructure Investment Priorities 2010-2016
[4] 'The Effects of Various Fiscal Measures', Dr. Rory O'Farrell, Nevin Economic Research Institute Working Paper Series, December 2013: http://www.nerinstitute.net/download/pdf/neri_wp_201310_effects_of_various_fiscal_measures_rory_ofarrell.pdf
[5] 'The HERMES-13 macroeconomic model of the Irish economy', Adele Bergin, Thomas Conefrey, John FitzGerald, Ide Kearney and Nuša Žnuderl, Economic Social Research Institute, Working Paper No. 460

of fiscal measures: social transfers, public sector wages, income taxes, etc. To take one example: impact of social transfers:

- For a €1 billion reduction in social transfers, NERI estimates that between 8,000 and 9,000 jobs will be lost to the economy.
- For the same reduction, the ESRI estimates employment falling between 5,000 and 6,000 by the third year after the cut.

These measures have a substantial impact on employment. Conversely, were the Government to increase social transfers by the same €1 billion, thousands of jobs would be created.

Government fiscal policy is directly involved in, and directly impacts on, employment levels. In short, Government policy creates and destroys jobs.

(c) The Entrepreneurial State

Governments create jobs not only through direct and indirect employment, and through macro-economic policies, the fact is that the state itself is an 'entrepreneur'. According to Mariana Mazzucato:[6]

> *'. . . the state has provided the main source of dynamism and innovation in advanced industrial economies . . .the public sector has been the lead player in what is often referred to as the 'knowledge economy' — an economy driven by technological change and knowledge production and diffusion. Indeed, from the development of aviation, nuclear energy, computers, the internet, the biotechnology revolution, nanotechnology and even now in green technology, it is, and has been, the state not the private sector that has kick-started and developed the engine of growth, because of its willingness to take risk in areas where the private sector has been too risk-averse. Not only has government funded the riskiest research, whether applied or basic, but it has indeed often been the source of the most radical, path-breaking types of innovation. To this extent it has actively created markets not just fixed them.'*

From biotechnology and nanotechnology, pharmaceutical drugs, information technology, green technologies – these are areas where the state has not only been the prime mover by investing in the earliest-stage research and development, it has also provided the practical support through institutional interventions from agencies dedicated to health research and business innovation. Essentially, where the private sector has failed to develop products and, so, markets because of uncertainty, the state has stepped in. Public agencies have made significant contributions to private commercial breakthroughs.

> *'. . . how many people know that the algorithm that led to Google's success was funded by a public sector National Science Foundation grant? Or that molecular antibodies, which provided the foundation for biotechnology before venture capital moved into the sector,*

ESRI, July 2013: http://www.esri.ie/UserFiles/publications/WP460/WP460.pdf

[6] The Entrepreneurial State, Mariana Mazzucato: http://www.demos.co.uk/files/Entrepreneurial_State_-_web.pdf

were discovered in public Medical Research Council (MRC) labs in the UK? Or that many of the most innovative young companies in the USA were funded not by private venture capital but by public venture capital such as through the Small Business Innovation Research (SBIR) programme?'

This perspective holds for Ireland. Sean O'Riain argues:[7]

' . . . a significant transformation and upgrading occurred in Irish industry over the 1990s . . . this upgrading was promoted primarily by a state-society alliance which developed new institutions of a system of innovation where the national level integrates local, national and global elements; and that this alliance should be seen as existing in a tense and contradictory relationship to the institutions of the market, not as simply subservient to market competitiveness.'

Not only did indigenous Irish industry, in particular the high-tech sector, benefit from a public innovation systems, similar to those identified by Mazzucato in the US and UK; O'Riain goes on to show that over a third of initial investment in such areas as computer related sectors, electronics, 'other manufacturing' and communications in the indigenous sector came from the state, with a substantial proportion of the remaining investment being stimulated by the state (e.g. matching funds arrangements). Eventually, private sector investment, both domestic and foreign, raised its share – but the key point is that it followed public investment. In short, the state took the early risk when failure is high; it is only after a success track record has been established does private investment flow in.

So let's leave behind unsubstantiated and discredited sound-bites like 'the government doesn't create jobs'. The state is deeply involved in employment, entrepreneurship, and markets. The question is not the involvement itself, but the efficiency of that involvement and how widespread the benefits of that involvement are spread.

- **Unite recommends that the Government abandon the flawed premise of current enterprise and employment policy – namely, that 'Governments don't create jobs'. It should start from the actual reality of our economy: a mixed market where the inextricable relationships means that the demarcation between 'public' and 'private' are blurred to the point of non-existent.**

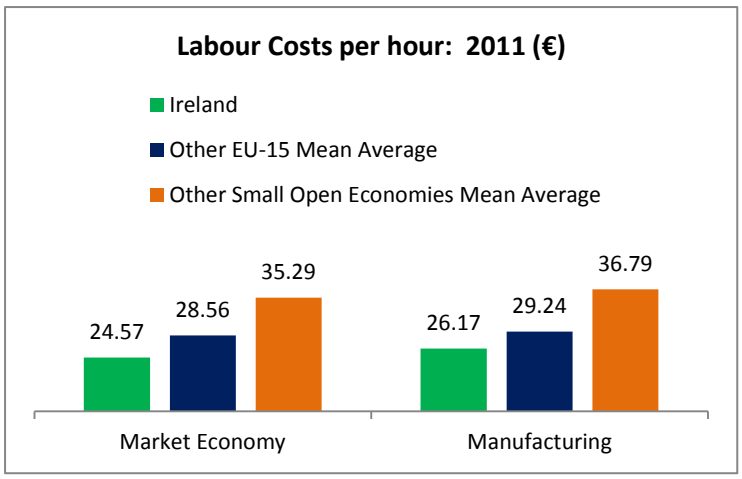
3. Labour Costs

It has been argued that the key to employment, or 'competitiveness', is to depress wages and therefore reduce the cost of labour to businesses. Recently, the National Competitiveness Council produced a chart[8] that purported to show that Irish labour costs were somehow rising tor trending to levels in other European countries. This was wholly disingenuous and deliberately misleading and should be withdraw in subsequent reports.

[7] State, Competition and Industrial Change in Ireland 1991-1999, Sean O'Riain, The Economic and Social Review, Vol. 35, No. 1, Spring, 2004

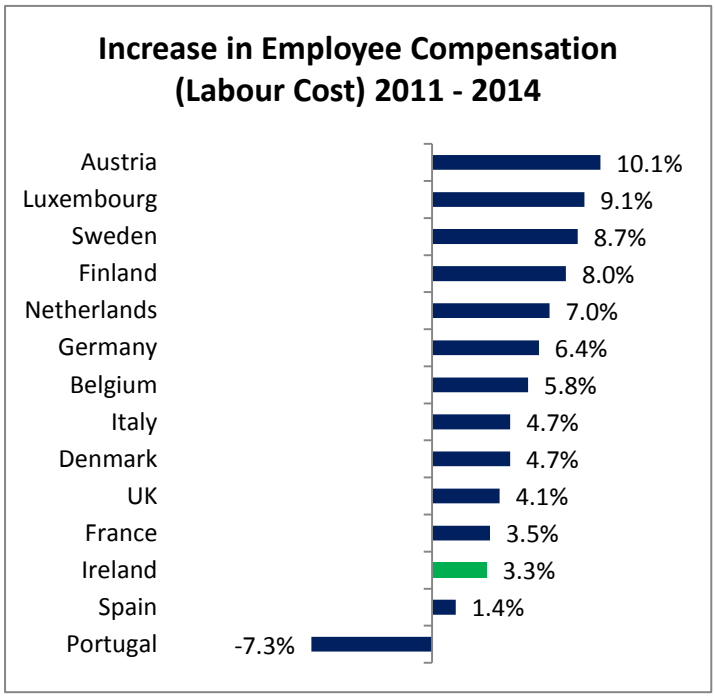
[8] National Competitiveness Council: http://www.competitiveness.ie/Publications/2015/24022045-Costs_of_Doing_Business_in_Ireland-Publication.pdf

The fact is that Irish labour costs or employee compensation are below-average when compared to other EU-15 countries.



As Eurostat shows[9], Ireland trails well behind other European averages. For the total market economy, Irish labour costs are 14 percent below the mean average of other EU-15 countries. In comparing ourselves to our peer group – other small open economies which are highly reliant upon exports – our wage levels are approximately 30 percent less in both the market economy and the manufacturing sector.

2011 is the latest year Eurostat has data from the Labour Force Survey but their Labour Cost Index brings wages cost growth up to 2014.[10]



Between 2011 and 2013 Irish labour costs in the market economy grew at a slower rate than most other EU-15 countries.

Whether using the European Labour Force survey or National Accounts, Irish labour costs or employee compensation is much lower than EU-15 averages. The presentation of labour cost data in the NCC report is not only misleading; it undermines the emergence of an agenda that can promote enterprise development.

For instance, higher wages will promote consumer spending which will increase business turnover. This, in turn, can promote the confidence to engage in investment which has the benefit of promoting more employment and wages in the economy – something with workers and businesses both benefit from. It can even assist in the development of exporting companies, especially as many indigenous firms start off by selling into the domestic sector. Without this ability, they will not be able to accumulate the resources (sales, skills, etc.) to enter foreign markets.

[9] Eurostat: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lc_an_cost_r2&lang=en
[10] Eurostat: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lc_lci_r2_a&lang=en

Trying to pretend that Ireland is a high-wage economy or that high wages are an impediment to 'competitiveness' is to mislead the debate and focus policy deliberation on the wrong and, potentially, debilitating targets.

- **Unite recommends that the Department produce – and require public agencies (in particular, the National Competitiveness Council) – accurate labour cost comparisons.**

4. Competitiveness

For too long the debate over competitiveness has focused on labour costs, labour flexibility and taxation while neglecting the real drivers of competitiveness – technological capacity, managerial competence, macroeconomic policies, investment, etc.

There is a false notion that 'high' employee compensation, 'high' taxation or 'strong' labour protection measures undermine competitiveness. We can test this assertion by examining the Global Competitiveness Index (GCCI). While the CGI is a largely a subjective survey, the respondents come from a panel of 13,000 'business leaders'. So this survey reflects the thinking of leading corporate executives and is taken seriously by the Government.[11]

The following compares the rankings of the small open economies in the EU-15 – the GCI ranking, labour costs, corporate tax, employers PRSI, personal taxation and 'labour flexibility'.[12]

Rankings of Small Open Economies

GCI Ranking	Finland	Sweden	Denmark	Belgium	Austria	**Ireland**
	4	10	13	18	21	**25**
Labour Cost, Market Economy *(€ per hour)*	Denmark	Sweden	Belgium	Finland	Austria	**Ireland**
	39.61	39.28	38.65	29.86	29.37	**24.57**
Corporate Tax *(% effective rate)*	Denmark	Belgium	Sweden	Austria	Finland	**Ireland**
	30.4	29.8	25.1	21.7	19.8	**8.5**
Employers' PRSI *(% of total wages)*	Sweden	Austria	Finland	Belgium	**Ireland**	Denmark
	22.3	19.5	17.7	16.5	**7.3**	n.a.
Personal Taxation *(% of total wages)*	Denmark	Belgium	Austria	Finland	Sweden	**Ireland**
	37.3	34.1	30.1	27.6	25.7	**23.1**
Labour Flexibility IMD*	Denmark	**Ireland**	Austria	Finland	Sweden	Belgium
	7.93	**6.68**	5.33	5.22	4.51	2.45

* Most 'flexible ranked from highest to least 'flexible', lowest.

[11] Minister Bruton welcomes continuing improvement in Ireland's competitiveness, Department of Jobs, Enterprise and Innovation, 3rd September 2014

[12] Global Competitiveness Index 2014 and Eurostat Taxation Trends in the European Union 2014

As seen, Ireland has the lowest labour costs, the lowest effective corporate tax rate, the lowest level of employers' PRSI (Denmark doesn't have a social insurance system), the lowest levels of personal taxation and the second highest 'flexible' labour market. Yet, in a survey of business executives, Ireland's business competitiveness is ranked behind (in some cases, well behind) all other countries.

We are not suggesting that there is a cause-and-effect; however, it shows that higher pay, higher levels of taxation and stronger labour protection laws are not a bar to a country's competitiveness.

- **Unite recommends that the Department produce a more sophisticated analysis of competitiveness which would focus on technological capacity, managerial competence, the actual impediments to entry into the export sector (and traded domestic sectors), access to finance, skill-base, and all relevant and comparative indicators.**

5. The Irish Indigenous Sector

The Irish indigenous sector underperforms compared to indigenous sectors in other EU countries. This is not new. For decades indigenous enterprise has been over-reliant on property, professional and financial activity – underperforming in key traded and high valued-added sectors. The following, taken from the EU's Structural Business Survey, provides the headlines for the non-financial indigenous sector and the key manufacturing and information & communication sectors. We put special emphasis on other small open economies; our peer group with a structure similar to our own (small domestic markets, open economies, heavy reliance upon export sectors).[13]

(a) Value-Added

Ireland and European Value Added: Indigenous Sector 2012

	Ireland	Other EU-15 (weighted)	Other Small Open Economies (weighted)
TOTAL MARKET ECONOMY			
Value-Added Per Working Age Capita €	12,701	16,618	21,858
% Increase Needed to Reach the average	-	*30.8*	*72.1*
MANUFACTURING			
Value-Added Per Working Age Capita €	1,612	3,879	4,637
% Increase Needed to Reach the average	-	*140.6*	*187.6*
INFORMATION & COMMUNICATION			
Value-Added Per Working Age Capita €	697	1,229	1,448
% Increase Needed to Reach the average	-	*76.3*	*118.9*

Undoubtedly, the recession and the subsequent years of budgetary austerity have contributed to a depression of the indigenous sector. Unfortunately, the EU's Structural Budget Survey only has data for Ireland since 2008 with 2012 being the latest year. At the very least, this shows the scale of the challenge that faces our indigenous sector.

The overall Irish indigenous sector trails behind the average of other EU-15 countries and, in particular, our peer group – other small open economies. The Irish indigenous sector would have to increase the value-added it produces by nearly 70 percent just to reach our peer group average.

[13] Eurostat: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=fats_g1a_08&lang=en

The situation is worse when examining the manufacturing and information & communication sectors. Concerning the former, the Irish manufacturing indigenous sector would have increase by more 2.5 times the level today to reach the average of other small open economies. Regarding the information & communication sector, it would have to more than double.

This shows the how far our indigenous sector lags.

(b) Investment

Ireland and Europe Investment: Indigenous Sector 2011			
	Ireland	**Other EU-15 (weighted)**	**Other Small Open Economies (weighted)**
TOTAL MARKET ECONOMY			
Investment Per Working Age Capita €	1,774	2,691	4,605
% Increase Needed to Reach the average	-	*51.7*	*159.7*
MANUFACTURING			
Investment Per Working Age Capita €	177	499	653
% Increase Needed to Reach the average	-	*181.1*	*268.4*
INFORMATION & COMMUNICATION			
Value-Added Per Working Age Capita €	110	132	180
% Increase Needed to Reach the average	-	*20.4*	*63.9*

Given that value-added creation is so low in the Irish indigenous sector, it is not surprising to see that investment levels – one of the main drivers in long-term business and economic growth – falling well behind other European averages. The gap between Irish investment levels and levels in other small open economies is substantial: in the total market economy, Irish indigenous investment would have to more than double; in the manufacturing sector, it would have to more than treble; while in the information & communication sector, where there was some growth in 2012, it would have to increase by nearly two-thirds.

This is probably the greatest challenge facing enterprise policy: to direct investment into our indigenous base. This goes beyond supply-side measures and tax incentives and reliance on so-called market forces – this requires a fundamental and radical re-think of how we restructure our indigenous base.

(c) Employment

Ireland and Europe Employment: Indigenous Sector 2011			
	Ireland	**Other EU-15 (weighted)**	**Other Small Open Economies (weighted)**
TOTAL MARKET ECONOMY			
Employment Per Working Age Population (%)	27.7	36.0	35.4
Increase in Employment Needed to Reach the average	-	*250,100*	*232,600*
MANUFACTURING			
Employment Per Working Age Capita %	2.6	6.8	6.7
Increase in Employment Needed to Reach the average	-	*127,700*	*124,200*
INFORMATION & COMMUNICATION			
Employment Per Working Age Capita %	1.2	1.5	1.8
Increase in Employment Needed to Reach the average	-	*10,500*	*17,400*

Again, given the low levels of valued-added creation and investment, it is not surprising to see low levels of employment. We should note that in 2011, employment had fallen substantially since 2008. However, in the indigenous manufacturing and information & communication had remained relative stable.

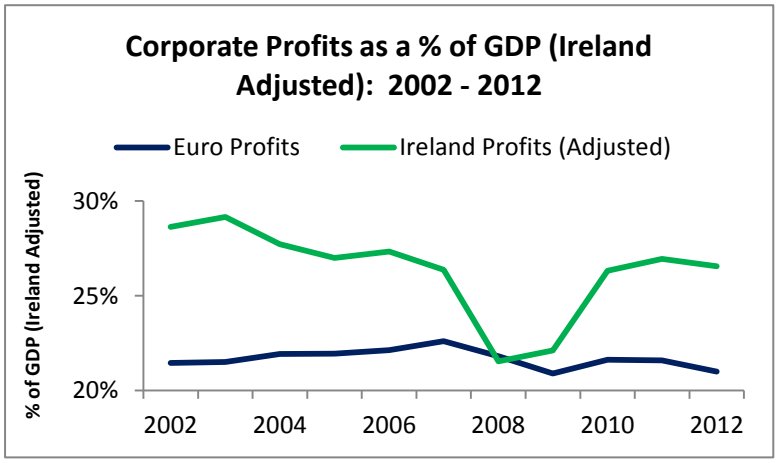
The indigenous sector would have to create over 225,000 jobs to reach the average levels in other small open economies – with the deficit in the manufacturing sector making up more than half the total under-performance.

- **Unite recommends that the Department conduct an exhaustive and comparative analysis of the Irish indigenous sector by sectors and sub-sectors – in order to form the basis for a more evidence-based debate over what is needed to grow the indigenous sector.**

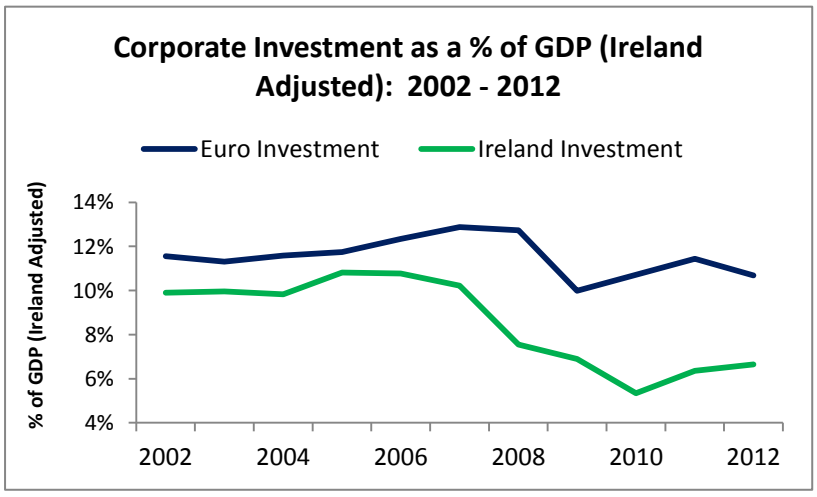
6. The Fundamental Flaw in Ireland's Market Economy

The under-performance of the indigenous sector is part of general and fundamental flaw in Ireland's market economy; namely, the Irish corporate sector takes down a high level of profit but returns a below-average level of investment when compared to other European countries. [14]

We approach the measurement of corporate profits with considerable caution. A headline measurement of corporate profits (net operating surplus) reveals an extra-ordinarily high level for Ireland, far in excess of other European countries. However, this is capturing the multi-national accounting activities (in reality, a code word for companies that engage in transfer-pricing and other profit-booking activities to take advantage of our low corporate tax rates – a feature of tax haven-conduit tax regimes). To separate this out, we use the Irish Fiscal Advisory Council's hybrid GDP measurement and subtract the difference with GDP from net operating surplus. While this is not wholly satisfactory it is nonetheless more reflective of actual profits in the Irish economy.



Even with Irish profits and GDP adjusted in this way, we can see that Ireland is a high-profit economy. Prior to the crash, it was consistently higher than the Eurozone average, only falling to that level in the crash. Irish profits quickly recovered, though, and restored its high level by 2012.



In contrast, Irish corporate investment levels have fallen consistently fallen below Eurozone averages. While in the wake of the crash the gap between Irish and Eurozone investment levels widened, we shouldn't expect investment levels to reach Eurozone averages – if historical patterns are anything to go by.

The fundamental flaw in the market economy can be put simply: Ireland provides a high profit level environment for the corporate sector (the after-tax profit comparison with other European countries would no doubt show an even wider gap), it does not receive a corresponding investment return. This puts Ireland at

[14] EU Ameco Database: http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm

a considerable competitive disadvantage – especially when considering that such a high level of profits flow out of the economy.

(a) FDI and Investment

There is considerable confusion between Foreign Direct investment and actual corporate investment. For instance, in 2012 Ireland received €29.8 billion in foreign direct investment (FDI). However, in that same year corporate investment was recorded at €8.9 billion (this includes both foreign and indigenous corporate investment). The difference lies in the fact that not all FDI ends up in actual investment.

The CSO classifies 'reinvested earnings' as investment for the purposes of determining foreign investment flows. However, the CSO defines this as '*the off-setting entry to the corresponding current account income item: it is the direct investor's share of the undistributed earnings of its branches, subsidiaries and associates*.'[15] In effect, this is not so much 'reinvested' as 'undistributed'. Further, there are indications that the IFSC plays a prominent part in FDI flows, much of which has to do with (re)financing companies unrelated to the domestic economy.

A recent paper by the Central Bank noted:

> *'FDI data in isolation do not give a good indication of the impact of foreign owned companies on the Irish economy. It is necessary to consider FDI statistics along with 'real' economic indicators such as employment, sales growth and value added to the economy.'* [16]

One of the 'real' economic indicators is actual investment – as recorded in national accounts by the CSO and Eurostat. This investment, which creates activity in the economy (company formation and expansion, value-added creation, employment) comprises:

- Dwellings & other buildings and structures (roads, bridges, airfields, dams, etc.)
- Transport equipment (ships, railway, aircraft, etc.)
- Other machinery and equipment (office machinery and hardware, etc.)
- Cultivated assets (managed forests, livestock raised for milk production etc.)
- Intellectual property-type fixed assets (software and databases, etc.)

The CSO and Eurostat measurements of investment show how much of the FDI flows actually end up as investment – which is low compared to other EU countries

- **Unite recommends that the Department conduct an analysis over why, despite high profits, the Irish corporate sector chronically lags European investment levels.**

END.

---

[15] [15] Foreign Direct Investment 2012, CSO: http://www.cso.ie/en/media/csoie/releasespublications/documents/economy/2012/fdi_2012.pdf

[16] [16] Foreign Direct Investment: An Analysis of its Significance, Mary Everett, Central Bank of Ireland: http://www.centralbank.ie/publications/Documents/2006%20No.%204%20Signed%20Article%20-%20Foreign%20Direct%20Investment%20-%20An%20Analysis%20of%20its%20Significance.pdf