

Stability and Change in the Sectoral Structure of the Irish Economy

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Background

This is intended to be the first of a series of papers addressing aspects of the economic crisis currently facing Ireland.

Reflecting our experience in policy analysis, we emphasise issues and variables relevant to enterprise policy and the labour market. Of the various concurrent economic crises affecting Ireland, our particular focus is on jobs and competitiveness.

Introduction

We have found what seems to us to be a high level of stability in important aspects of the economy's sectoral structure, as measured by employment. The paper describes what we have found, and draws a number of conclusions from these findings.

The key conclusion is that while policy actions interventions in other sectors may have some positive impact, only manufacturing and internationally traded services appear to offer good potential to drive a return to full employment in Ireland within a reasonable period of time.

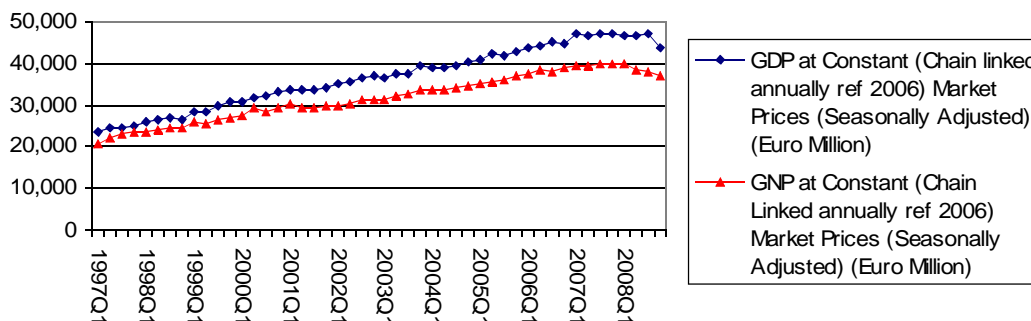
Traded, Domestically Traded and Non-Market Sectors

In the paper: "traded" or "internationally traded" sectors refer to sectors of the economy that trade internationally; "domestically traded" sectors refers to sectors that predominantly operate within the domestic economy and have very limited involvement in international trade; and "non-market sectors" refers to sectors of the economy that are dominated by public spending and public employment.

Major Changes in Scale of Economy

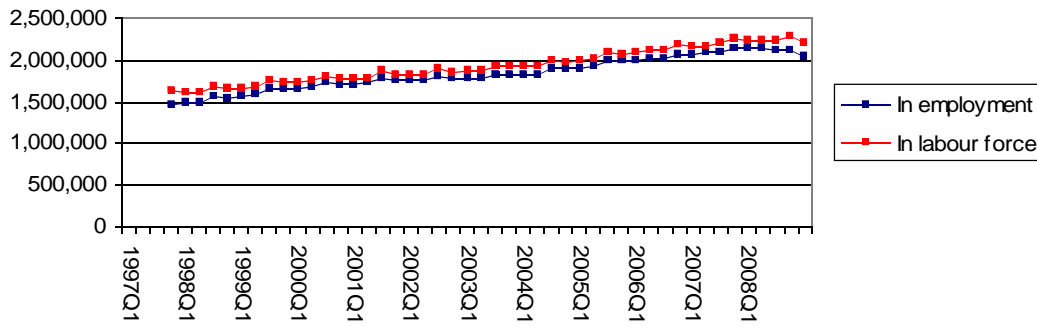
Over the last decade or so (and indeed before then), the Irish economy has gone through major changes in scale, upwards until 2007, and downwards through 2008. The downturn has continued so far through 2009, but data from the main series of statistics used in this paper (National Accounts and Quarterly National Household Survey (QNHS)) are not yet available for any part of 2009.

GDP and GNP since 1997



Source: Data from CSO

Employment and Labour Force¹ in Economy since 1997



Source: Data from CSO

Structural Stability and Domestically Traded Services

It is striking that, as measured through employment levels, the share of activity in the economy accounted for by market services sectors that are predominantly domestically traded has remained close to constant, despite changes upwards and downwards in the economy's size. While the economy's scale has changed, this aspect of its structure has not.

In terms of official NACE industry codes, the main market services industries that are predominantly domestically traded are:

- Section G – Wholesale and Retail Trade
- Section H – Hotels and Restaurants²
- Section I – Transport, Storage and Communication³
- Section O – Other Services

Section J-K – Financial and Other Business Services has components that are predominantly domestically traded and components that are predominantly traded internationally. A convenient approximation for distinguishing between these statistically is to say that statistics on clients of the industrial development agencies described as “internationally traded services” represent the internationally traded part of Section J-K, while the remainder represents the predominantly domestically traded part.

The shares of employment in the economy accounted for by each of these predominantly domestically traded sectors has remained close to constant since 1998. Their total has also remained almost constant since 1998, at close to 41% of all employment⁴.

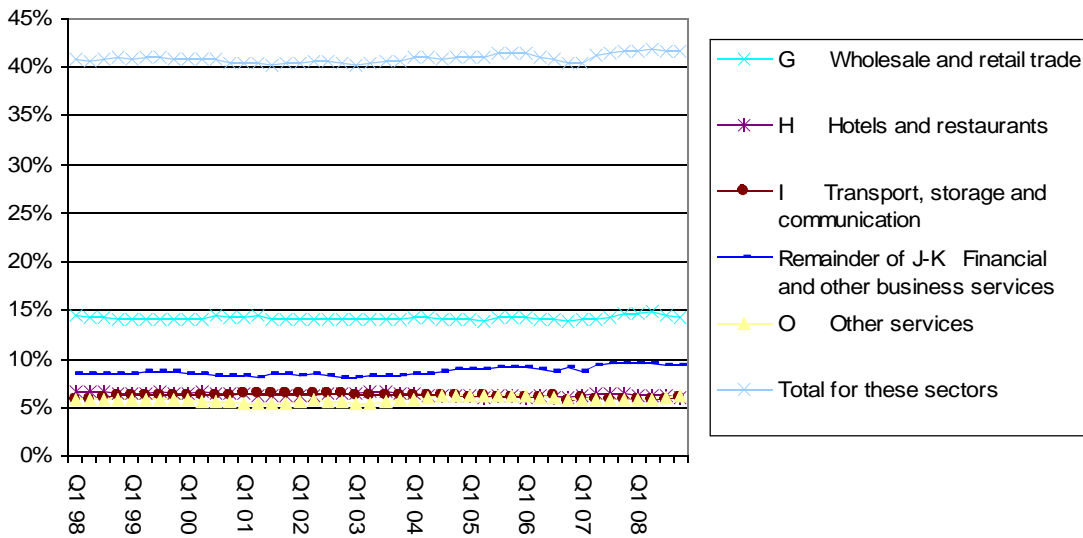
¹ “Labour force” refers to the number of people available for work, based on the number employed, plus the number seeking employment.

² It is notable that employment in the hotels and restaurants sector, which is generally associated with tourism, behaves similarly to that for domestically traded sectors. The main reasons for this appear to be that: the majority of the sector's turnover comes from domestic customers (perhaps three quarters, based on an assumption that half of overseas tourist spend within the economy goes to the sector); business travel, which is likely to correlate with business activity in Ireland, accounts for about 15% of inward visits, and possibly a bigger share of spending with the sector; and, as Irish economic activity has a strong correlation with activity in other countries, spending by tourists from overseas is likely to correlate with Irish economic activity even if not driven by it.

³ In 2006, transport industry receipts from visitors travelling to Ireland amounted to €663m, which was only about 3% of the wider sector's turnover.

⁴ The greatest variations here are in “Remainder of J-K”. It is possible that artefacts of using two different data sources, and of interpolating to synthesise quarterly Internationally Traded Services data, are responsible for part of the variation.

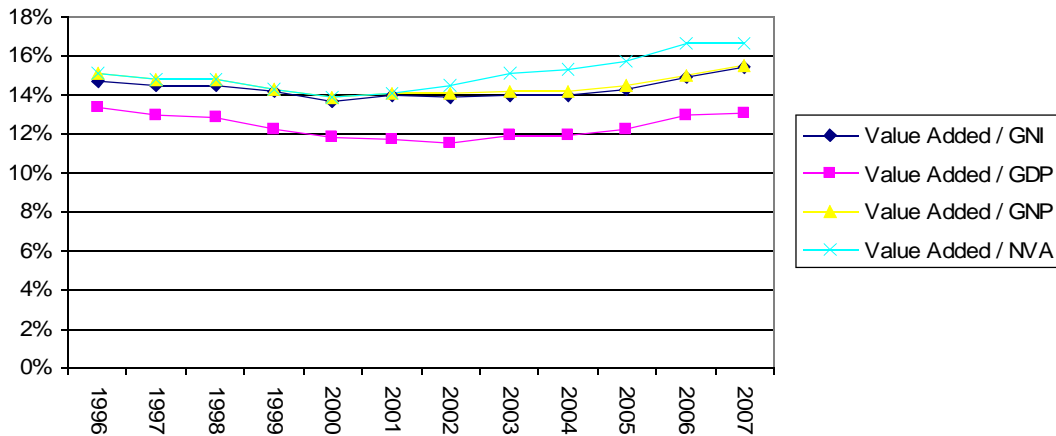
Share of All Employment Accounted for by Each Domestically Traded Sector



Source: Data from CSO

The share of activity in the economy accounted for by domestically traded services appears less stable when viewed through other measures. “Distribution, transport and communication”, covering NACE G and NACE I, is the only category in the National Accounts that forms a subset of these sectors. Net value added in this sector, expressed as a percentage of the main macroeconomic indicators, has varied significantly over time.

Value Added in Distribution, Transport and Communication as % of Main Macroeconomic Indicators

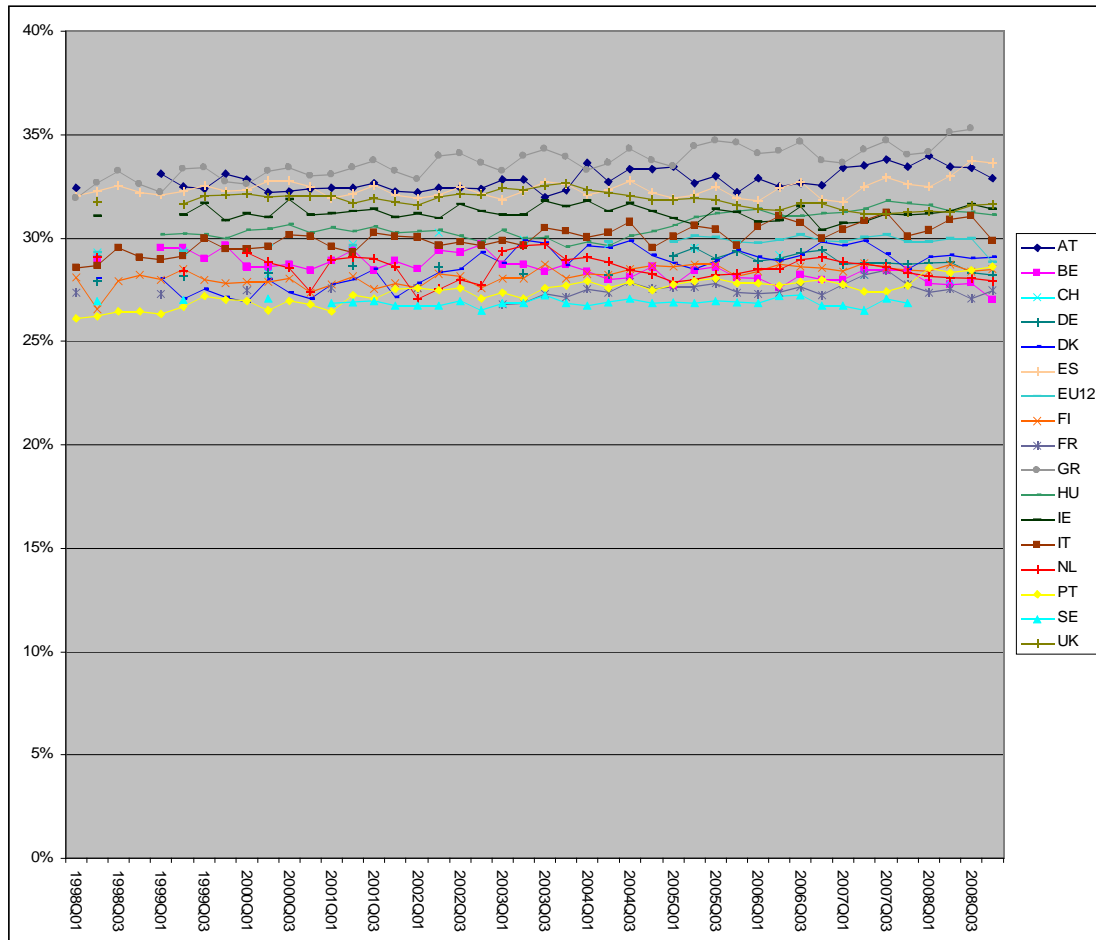


Source: Data from CSO

Therefore, the volume-related employment measure seems to be a better indicator of the enduring structure of the economy than value added, at least as far as domestically traded services are concerned.

While the stability in the share of employment accounted for by domestically traded sectors is particularly stable for Ireland, it is also stable for many other well developed EU Member States. This gives some cause to anticipate that the share of all employment accounted for by domestically traded sectors will not deviate radically from its historical pattern, even if it becomes more volatile.

Share of Total Employment Accounted for by Four Domestically Traded Sectors (Section G – Wholesale and Retail Trade, Section H – Hotels & Restaurants, Section I – Transport, Communications and Storage, Section O – Other Services), Various European Countries

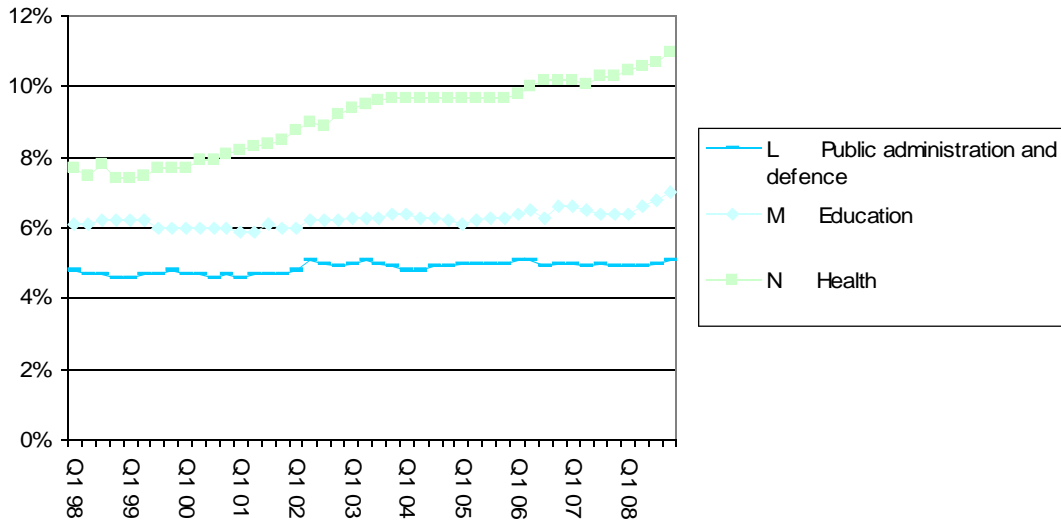


Source: Data from Eurostat

Structural Stability and Change in Non-Market Services

The behaviour of employment in non-market services varies between sectors. The share of employment accounted for by public administration and defence has remained almost as stable as for most domestically traded market services sectors. There is, however, a hint in the data for the last two quarters of 2008 that employment in the sector is sticky downwards as total national employment decreases.

Share of All Employment Accounted for by Each Non-Market Services Sector



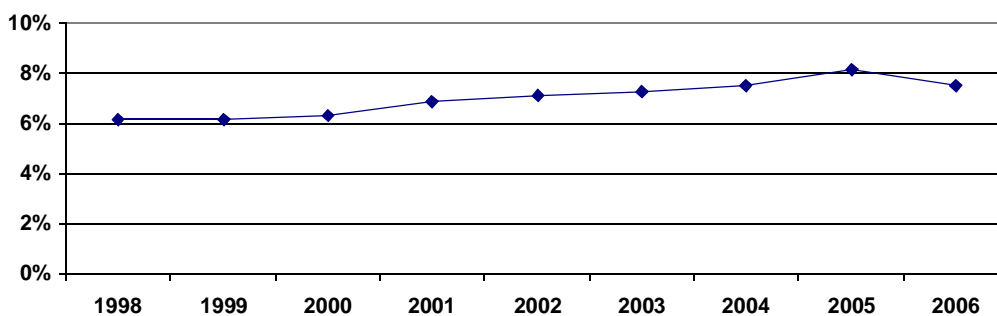
Source: Data from CSO

Over most of the period since 1998, employment trends in education have also roughly tracked national trends, although with a modest increase in share over time. This pattern ended in 2008, with numbers employed in education continuing to rise as national employment fell.

In contrast to the other non-market sectors, employment in health has boomed since 1998. Employment has grown in all years since then, but rose particularly steeply as a share of all employment between 1999 and 2003, and during 2008. The rise during 2008 reflected numbers employed continuing to rise as total employment fell nationally.

This pattern of employment growth reflected trends in healthcare spending, which rose from around 6% of GDP in 1998 to close to 8% in 2005/6.

Irish Healthcare Expenditure as % of GDP

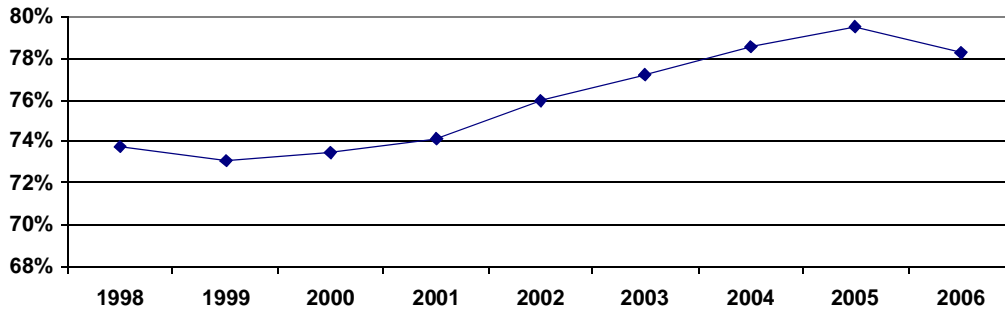


Source: OECD

While there are elements of private provision in healthcare, most employment in the sector is inextricably tied into the public sector, including much of that not recorded as health service employment. Almost 80%⁵ of healthcare spending in Ireland comes from the public purse, and a substantial share of privately funded provision takes place in institutions that are primarily funded by the public.

⁵ 78.3% in 2006, OECD.

Public Share of Total Irish Healthcare Spend

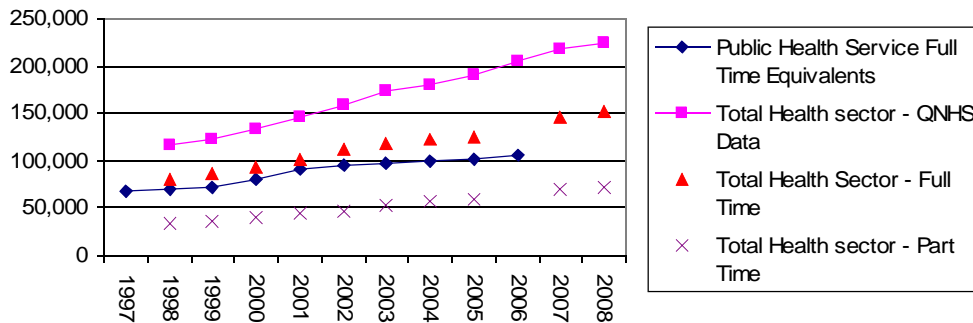


Source: Data from Department of Health and Children

Employment in health in Ireland, at 11% of all employment, is only a little lower than that for Germany (11.6% of all employment), a little above the average for the twelve members of the euro zone (10.6%), and significantly above the average for the EU as a whole (8.9%). This is high for a country that still has a relatively young population, indicating that whatever problems the sector has are not a function of inadequate total numbers of people.

If there was a policy intention to reduce public healthcare spending through reducing employment levels, it might prove less sticky downwards than for the other non-market services sectors. Almost 10% of employment in the sector is temporary, and employment that is formally private sector in character appears to be a substantial feature of the sector.

Employment in Health



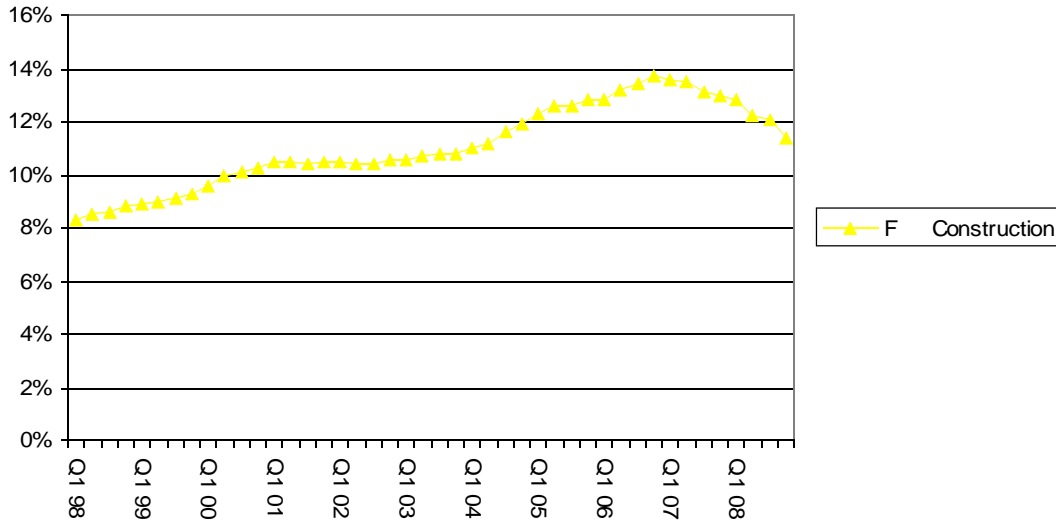
Source: Data from Department of Health and Children, CSO and Eurostat

Given budgetary constraints that will remain severe for the foreseeable future, the Government's efforts to reduce numbers employed, and a widespread acceptance that increasing public sector employment levels would not be an effective response to unemployment, it is difficult to imagine that the non-market sectors will make a major contribution to any recovery in employment levels. Even after planned cuts in public employment take place, it seems likely that the share of employment accounted for by these sectors will be at a level that is hard to fund sustainably. This is likely to preclude significant growth in numbers employed until the rest of the economy catches up.

Structural Change in Construction

The share of the economy's total employment in construction has varied even more dramatically than for healthcare, rising from less than 7% before 2006, to peak at 13.7% in Q4 2006. As the construction bubble started to deflate, the share reached 11.3% in Q4 2008. It has continued to fall since.

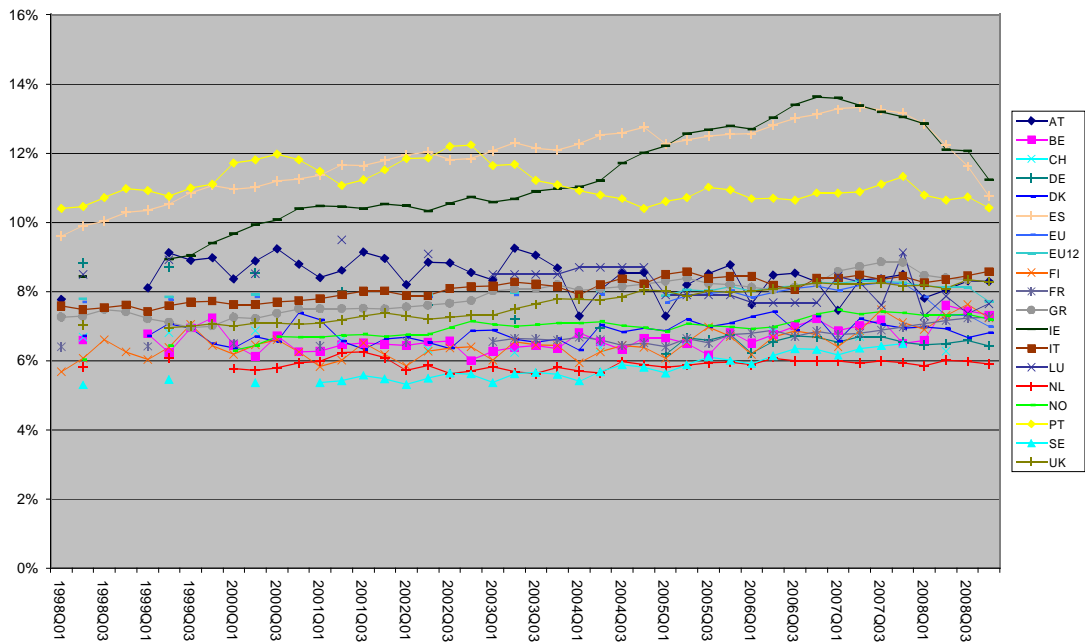
Share of All Employment Accounted for by Construction Sector



Source: Data from CSO

It is clear that construction employment will continue to decrease. Comparisons with other countries point toward employment levels attained during the boom being unsustainable. For most developed European countries, employment in construction runs between 6% and 8% of total employment. It seems unlikely that anything significantly outside this range can be sustainable for Ireland, which suggests that the share of employment accounted for by construction will fall by a minimum of 3.4% over that in Q4 2008. It may possibly fall significantly more, overshooting the level that will eventually be sustainable as it falls.

Share of Total Employment Accounted for by Construction, Various European Countries



Source: Data from Eurostat Labour Force Survey database

In a recent submission to the Government, the Construction Industry Council (CIC) has suggested that construction employment could fall as low as 126,000 in 2011, of which 90,000 would be within the sector as defined in the QNHS statistics used in this paper. It has proposed a programme of capital investment designed to support another 50,000 jobs (35,700 in QNHS terms)^{6,7}. This total of 125,700 jobs (in QNHS terms) would represent a precipitous fall from the peak number of 284,700, and from the 233,800 seen in Q4 2008.

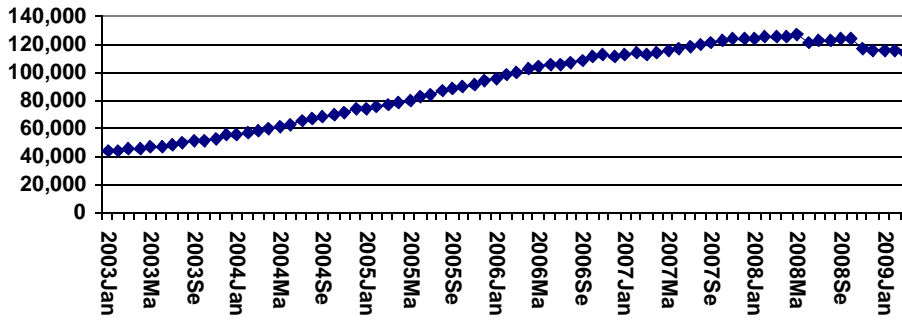
The CIC projection of 90,000 would represent something of the order of 5.2% of total national employment, depending on other assumptions, and taking account of the impact of that level of construction activity on employment in other sectors of the economy.

An important factor in understanding the impact of the construction boom on the wider economy is that much of it was financed through issuing debt to overseas investors. As a consequence, the immediate impact on the labour market was similar to that of an exporting industry; production in Ireland was associated with an inflow of funds analogous to export earnings, from which wages were paid. However, while exporting is sustainable over the long term, providing that competitiveness can be maintained, it is not possible to sustain an industry over the long term on the proceeds of new borrowing equivalent to a substantial share of GDP. Substituting public for private borrowing can do little to make it more sustainable.

⁶ SUBMISSION TO THE GOVERNMENT BY CONSTRUCTION INDUSTRY COUNCIL: Jobs and Infrastructure – A Plan for National Recovery, March 2009

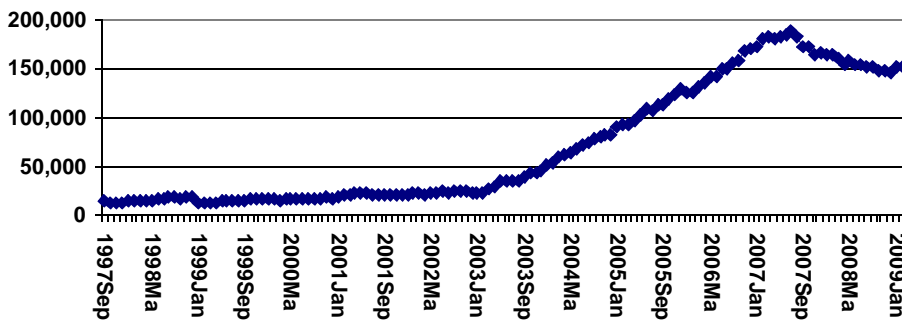
⁷ This reference to the CIC submission should not be construed as an expression of active support. Viewed as an active labour market intervention, which is broadly how the case for intervening is framed in the submission, the CIC proposal has a very high cost per beneficiary per year in comparison with other types of intervention.

Outstanding Loans for House Purchasing by Monetary Financial Institutions in Ireland (€m)



Source: Data from European Central Bank

Outstanding Debt Securities Issued by Monetary Financial Institutions in Ireland (€m)



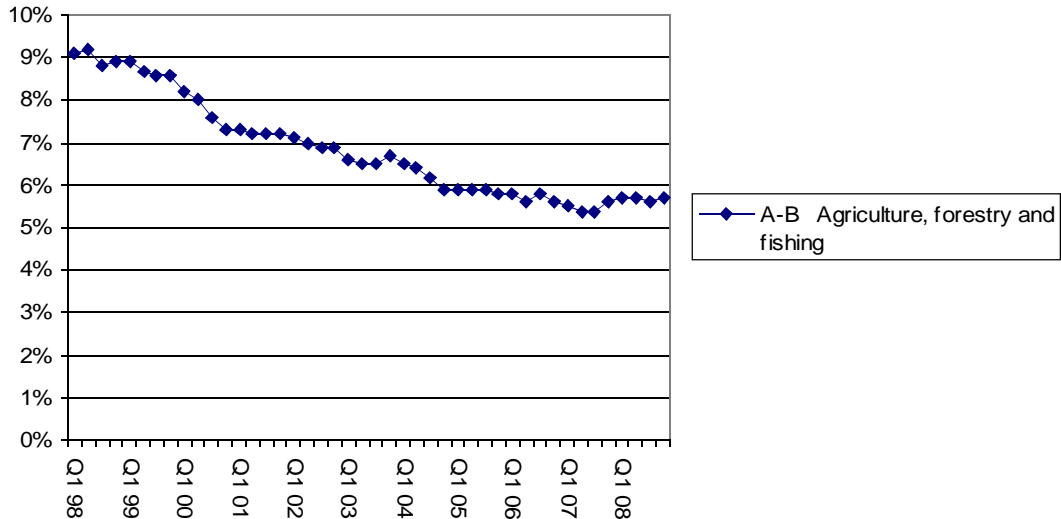
Source: Data from European Central Bank

While heavy investment in infrastructure contributed to the construction boom, it was dominated by private investment in residential and commercial property. There is little prospect, even once the current large oversupply of residential and commercial property has been dissipated, that conditions will re-emerge under which significantly more than 8% of the working population work in construction. Property booms similar to that seen over the last decade in Ireland seldom recur.

Structural Stability and Change in Agriculture, Forestry and Fisheries

Between 1998 and 2005, the share of employment accounted for by agriculture, forestry and fisheries fell from over 9% to under 6%, and has remained roughly stable since then.

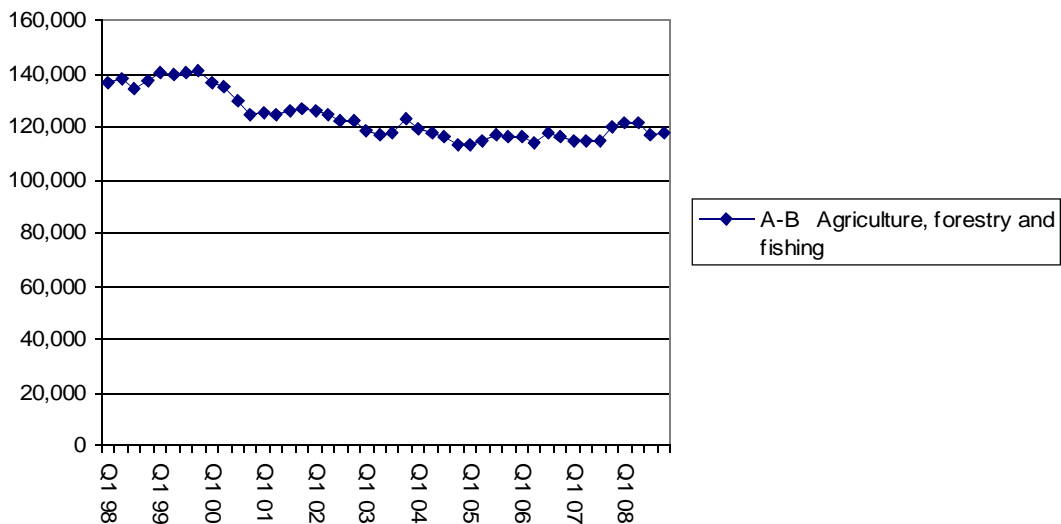
Share of All Employment Accounted for by Agriculture, Forestry and Fishing



Source: Data from CSO

Viewed in terms of absolute numbers, this reflects employment in the sector running at close to 120,000 since the start of the decade.

Employment in Agriculture, Forestry and Fishing



Source: Data from CSO

This level of employment in the agriculture, forestry and fisheries is about twice the euro zone average (3.0% in Q4 2008). However, as net incomes in the sector derive primarily from direct payments and other subsidies, there will be very limited pressure driving numbers

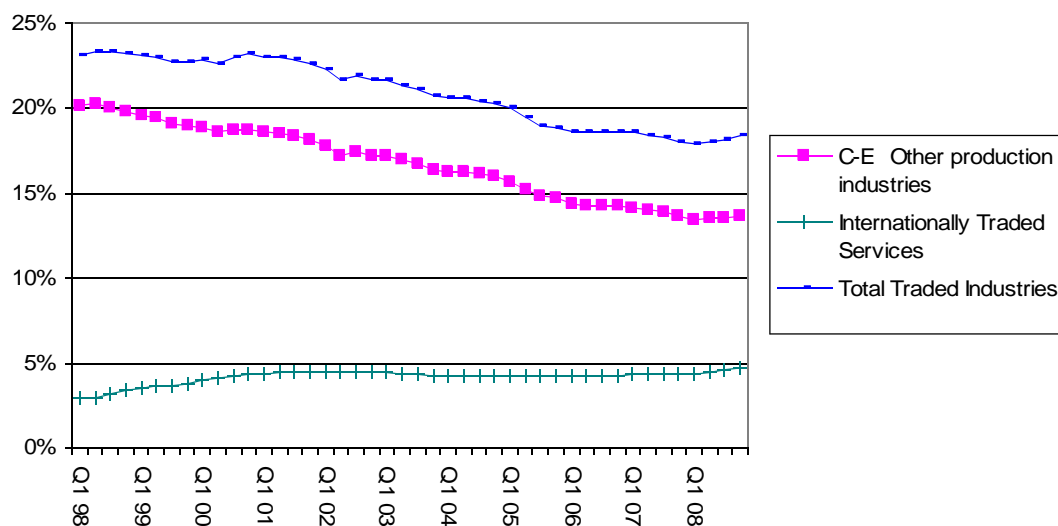
down so long as subventions continue at current levels, and there is significant competition for employment opportunities in other sectors⁸.

Structural Change in Traded Industries

The share of employment in predominantly traded industries remained roughly constant between 1998 and 2001. It fell from 23.0% in Q2 2001 to 17.9% early in 2008. It then rose a little during 2008, as employment levels in exporting industries held up better than those in construction and domestically traded services.

Viewing the statistics at a more detailed level, the share of employment accounted for by “production industries” (predominantly manufacturing) fell fairly constantly between 1998 and early 2008, while that in internationally traded services rose initially (driven particularly by strong growth in software), and then levelled off.

Share of All Employment Accounted for by Internationally Traded Industries



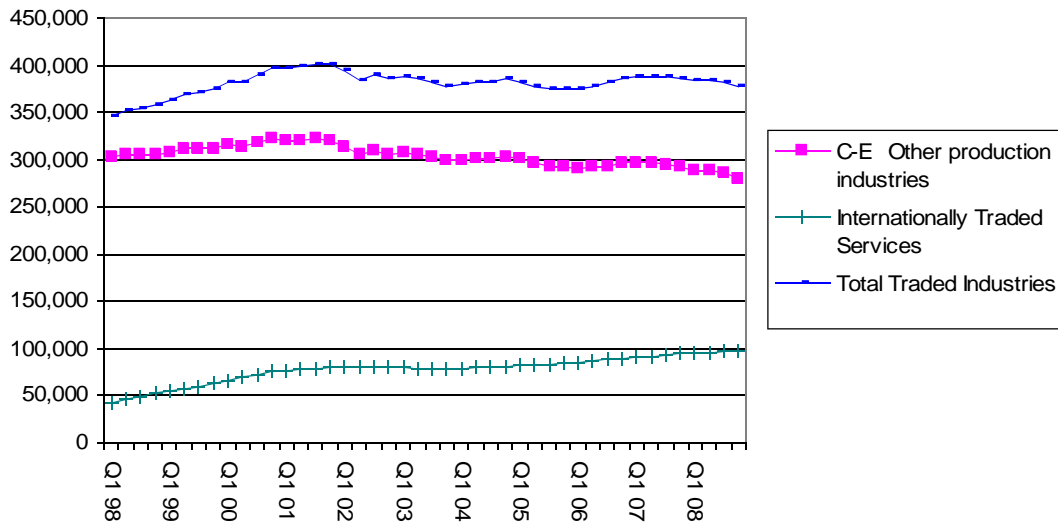
Source: Data from CSO, Internationally Traded Services data⁹ from Forfás

Viewed in terms of absolute numbers, this reflects rising employment in both production industries and internationally traded services to 2001/2. Since then, rising employment in internationally traded services has roughly balanced falling employment in production industries.

⁸ In 2007, direct payments to farmers accounted for 71% of their operating surplus. Source: Department of Agriculture, 2008.

⁹ Survey conducted annually circa Q4. Data for other quarters is based in interpolations.

Employment in Internationally Traded Industries

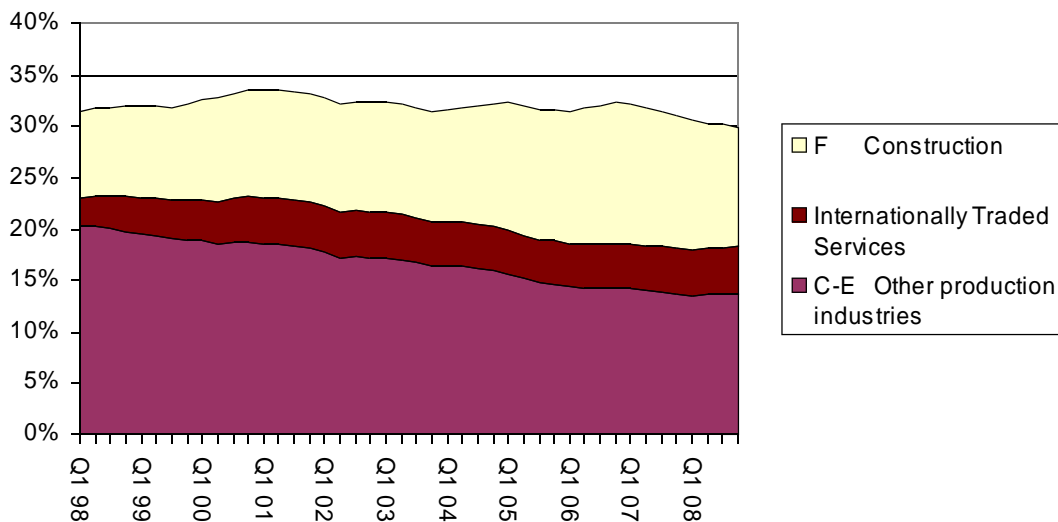


Source: Data from CSO, Internationally Traded Services data from Forfás

Partial Replacement of Traded Industries by Construction

Between 2001 and 2007, the decrease in the share of employment accounted for by internationally traded sectors was balanced by a similar increase in the share accounted for by construction.

Shares of All Employment Accounted for by Internationally Traded Industries and Construction



Source: Data from CSO, Internationally Traded Services data from Forfás

It appears that this is not a coincidence – that it has been driven by:

- Internationally traded activity being squeezed out as construction bid up wages and attracted entrepreneurial and technically-minded talent; and

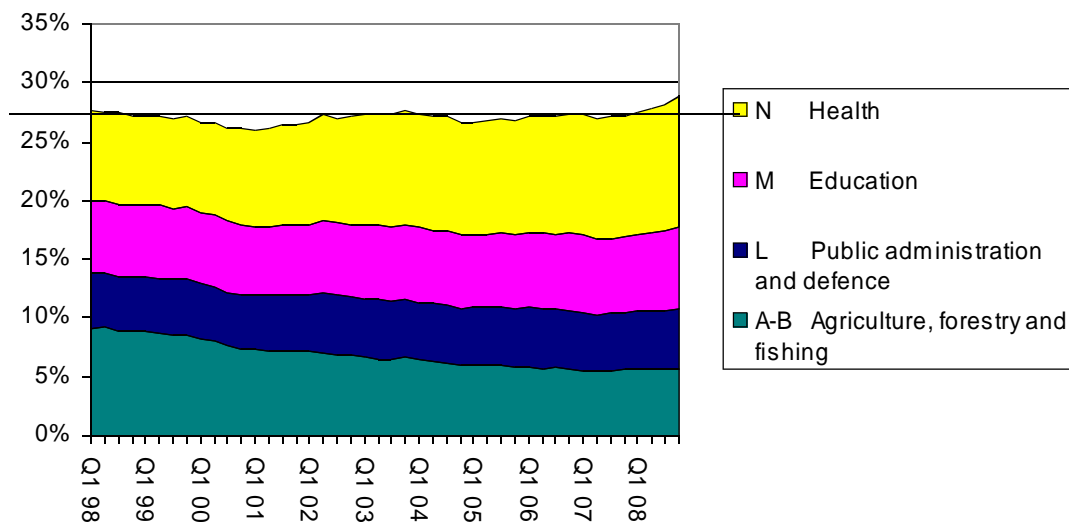
- Substantial net inward migration, ultimately driven by construction, raising the “total employment” denominator while total traded sector employment remained roughly level.

Now, however, with employment in construction falling rapidly, with difficult trading conditions in export markets, and with costs arguably at unsustainable levels, it is difficult for exporting industries to take up the slack.

Partial Replacement of Agriculture, Forestry and Fishing by Non-Market Services

Between 1998 and 2007, increasing employment in education and health effectively balanced falling employment in agriculture, forestry and fishing, so the share of employment in the economy accounted for by activities heavily dependent on State expenditure remained about constant. Continuing increases in employment in health, education and public administration/defence since then have had the effect of driving the share of employment directly dependent on State expenditure above historical levels.

Shares of All Employment Accounted for by Agriculture, Forestry & Fishing and Non-Market Services Sectors



Source: Data from CSO

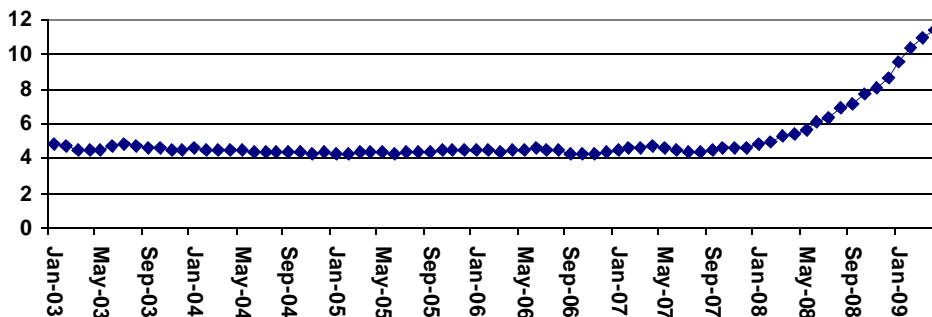
As of Q4 2008, it looks like the overshoot is roughly 6-7% of total non-market services employment, or about 30,000. It seems clear that this will have increased since then.

Fall in Total Employment can be Explained Fully as a Consequence of Fall in Employment in Construction and in Traded Sectors

Some of the policy discourse about trends in employment and unemployment has expressed surprise at how steeply employment has fallen, and at how sharply unemployment has risen. Viewed from the perspective of the relationships identified in this paper, it is not in the least surprising.

- In the context of the end of the construction bubble, it would be surprising if employment in construction did not eventually fall at least to 8% of all employment if not further, even in the context of continuing heavy investment in public infrastructure.
- In the context of very difficult international trading conditions, it would be surprising if employment in traded industries did not fall, following on from a period of no net growth.
- Between Q2 2007 and Q4 2008, employment in construction fell by 52,400 and that in production industries fell by 16,000, for a total fall of 68,400. If no other changes in employment had occurred other than a fall in employment in domestically traded sectors sufficient to maintain their share of total employment, then the total fall in employment in the economy would have been 111,500. The actual fall was much less than this, at 59,200, because employment in non-market services and agriculture/forestry/fisheries combined increased by 22,800, and apparently because this increase eased the pressure on domestically traded services.
- The subsequent increase in unemployment demonstrated through CSO Live Register data looks much like it is made up of:
 - A continuing fall in construction and traded employment, driven by the same root causes as before;
 - An end to growth in employment in non-market sectors of the economy, driven mainly by Government decisions;
 - The impact of falling employment in construction and traded industries on employment in domestically traded services; and
 - Only slow change in the supply of labour, with very limited employment opportunities overseas discouraging motivated people from looking elsewhere for work.

Standardised Unemployment Rate



Source: Data from CSO

What Can Drive a Return to Full Employment?

If the relationships and analysis set out in this paper continue to hold, then:

- Employment in domestically traded services sectors will effectively be a function of employment levels in the wider economy;
- Employment in construction will be constrained on the upside by employment levels in the wider economy, at a level well below that seen in Q4 2008;
- Employment in non-market services will be well ahead of the wider economy, and budgetary constraints will probably mean that it has to pause until the wider economy catches up; and
- Employment in agriculture will, at best, be maintained at roughly current levels through the continued operation of direct payments and other subsidies.

This leaves only traded industries offering good potential to drive employment growth. If they grow, other sectors can follow. If they do not, then the only path to full employment is through substantial structural changes in the economy. There is no roadmap for such a transformation, and it is not obvious whether it is feasible.

A return to employment growth in traded sectors is, at best, likely to start only after significant growth in the global economy resumes.

The analysis downplaying the potential of other sectors has to be qualified to some extent. There is of course potential to develop businesses in domestically traded sectors that operate internationally, and boost employment in Ireland by basing their headquarters functions here. However, it would take a large number of such successes to make a significant impact on employment levels in Ireland.

More significantly, there is potential to grow internationally traded activity in some sectors that are primarily domestically traded. Perhaps ironically, the area that appears to offer most potential is construction and related business services (such as architecture and engineering consultancy). The international market for construction and related services may take longer to recover than other export markets, but with some record of Irish success in the area, and a large pool of construction-related labour that cannot be occupied fully at home, the area offers potential.

Some Policy Conclusions

While one of the purposes of this paper is to lay foundations for a series of further papers, it is possible to draw a number of significant policy conclusions at this point.

1. Traded Sectors

The analysis suggests that the traditional emphasis that Irish enterprise policy has placed on jobs in traded sectors of the economy is highly appropriate to Ireland's current economic predicament. So long as Ireland's economy remains highly open, almost every other job in the economy depends ultimately on jobs in these sectors. Without a major structural shift in the economy, no other sector is plausible as a driver of recovery and future growth.

If the structure of the economy prior to the start of the construction boom is a good guide, then employment in traded sectors will have to return to about 23% of total employment in the economy to support full employment and stable public finances, from its current (Q4 2008) 18.4% share. If, hypothetically, the size of the available labour force remained constant at Q4 2008 levels, then employment in traded industry would have to increase by about 110,000 over Q4 2008 levels to achieve a return to 5% unemployment.

2. Entrepreneurship

Boosting entrepreneurship is being canvassed widely as a means of tackling unemployment. It is clearly true that entrepreneurship in traded industries has an important role to play in increasing employment in these industries, and providing an economic basis to support more employment in other sectors. Promoting entrepreneurship in traded industries clearly has to be a key pillar of jobs policy.

However, the reality of business in Ireland is that most entrepreneurs establish businesses in domestically traded sectors of the economy. It looks from the analysis in this paper as if employment levels in domestically traded market sectors of the economy are probably largely determined by employment in other sectors. Most new entrants into these sectors, if they succeed, are likely to do so primarily by diverting spending from their competitors, on average displacing as many jobs as they create, or almost as many.

We raise “almost” as a possibility because:

- Competition from new market entrants should help drive to drive prices down, and this could have a small net positive impact on volumes consumed, and therefore on the number of employees required; and
- Entrepreneurship could lead to businesses being established that go international, with some positive impact on Irish-based employment.

Entrepreneurship has an important positive role to play in domestically traded sectors in driving innovation, providing a much-needed boost to competition, responding to customer needs and potentially improving productivity. Entrepreneurship in domestically traded sectors will not solve the jobs crisis, but it does not have to solve the crisis to make a positive contribution to the economy.

3. Job Subsidies

Various policy proposals are to introduce employment subsidies currently being canvassed. Much of the response from economists has focused on the likelihood that there would be a high level of deadweight – that many (possibly the vast majority) of jobs subsidised would have been created anyway.

However, there is also a major displacement issue. If employment levels in domestically traded market sectors are largely determined by employment in other sectors, then any subsidy for employment in one of these sectors is likely to displace an equivalent amount of employment elsewhere in the sector.

This argues that employment subsidies, if implemented, should be limited to:

- Traded and possibly non-market sectors of the economy; and, more broadly,
- Cases where there is an explicit policy intention to give preference to particular groups, such as people at risk of long term unemployment, even in the expectation that equal numbers of others will lose out.

This Paper

While reasonable care has been taken to avoid errors, the paper may not be error-free. It should not be relied upon for advice. We may revise the paper so as to correct any errors found.

About Publica Consulting

Publica Consulting is a Dublin-based company, which provides management and public policy consulting services. It commenced business in 2005, and has undertaken a succession of major projects on behalf of public sector bodies, mainly in skills and enterprise policy.

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