



**Central Statistics Office  
IRELAND**

# **Business in Ireland 2011**

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**Central Statistics Office**  
An Phríomh-Oifig Staidrimh

# **Business in Ireland 2011**

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Chapter 1	<b>Introduction and key findings</b>	5
Chapter 2	<b>An overview of the business economy in Ireland</b>	9
Chapter 3	<b>Small and medium enterprises (SMEs)</b>	15
Chapter 4	<b>Enterprise births, survivals and deaths</b>	23
Chapter 5	<b>Business performance in Ireland</b>	29
Chapter 6	<b>Business costs in Ireland</b>	35
Chapter 7	<b>Detailed business sectors</b>	41
Chapter 8	<b>Multinationals: an Irish perspective</b>	47
Chapter 9	<b>Financial sector</b>	53
Chapter 10	<b>International comparisons</b>	57
Special Article 1	<b>International Sourcing Survey 2009 to 2011 - a case study for systematic micro data linking</b>	67
Special Article 2	<b>The Distribution sector in Ireland</b>	77
Appendix 1	<b>Data sources</b>	91
Appendix 2	<b>Definitions</b>	93
Appendix 3	<b>Classifications</b>	97
Appendix 4	<b>StatBank - CSO main data dissemination service</b>	99





## Introduction and key findings

This is the third year of the consolidated annual report on Business in Ireland. It was initiated to provide an overview of the Structural Business Statistics currently produced by the Central Statistics Office (CSO).

The report this year again focuses on the activities and performance of small and medium enterprises (SMEs). Chapter 3, which is dedicated to the analysis of SMEs, has been expanded to include a categorisation of SMEs into Irish-owned or foreign-owned enterprises which were either engaged or not in international trade. Chapter 5 looks more specifically at the performance of SMEs compared to large enterprises while Chapter 6 looks at the breakdown of the business costs faced by SMEs.

There is one new chapter which expands the scope of the report. Chapter 6 – Business costs in Ireland – looks at personnel costs and its constituent parts of wages & salaries and employers' social security costs. Total purchases of goods and services by enterprises are also analysed in terms of broad sector and size class.

There are two special articles in the report this year. The first special article, which is authored by Mr. Barra Casey (CSO), outlines some of the key results from the International Sourcing Survey 2009 – 2011. As this survey was coordinated from the European level, it is possible to compare the Irish data with results from other countries in the EU. A methodological note is also included about an ongoing project with Eurostat that aims to link the micro data from the International Sourcing Survey 2009 - 2011 to other statistical domains. The benefits of micro data linking include the production of new statistical outputs at minimal extra cost to the CSO and no extra burden on respondents. The European project will be outlined and initial outputs from the micro data linking exercise will be presented.

The second, which is authored by Mr. Don Forde (CSO), analyses the Distribution sector in Ireland over the period 2000 to 2011. A number of different data sources are used in the analysis (e.g. National Accounts, Annual Services Inquiry, Business Demography statistics and the Retail Sales Index) in order to build a narrative around the structure and performance of the Distribution sector over time.

Appreciation is extended to all firms that co-operate with the structural business surveys carried out by the CSO. The information they provide is treated as strictly confidential. Direct or indirect disclosure of information relating to individual respondents is avoided in the publication of results by combining categories containing small numbers of enterprises.

Irish data presented in this report are available on StatBank, the main data dissemination service on the [CSO website](#). See *Appendix 4*. The data presented in this report are only a small fraction of the Structural Business Statistics available online.

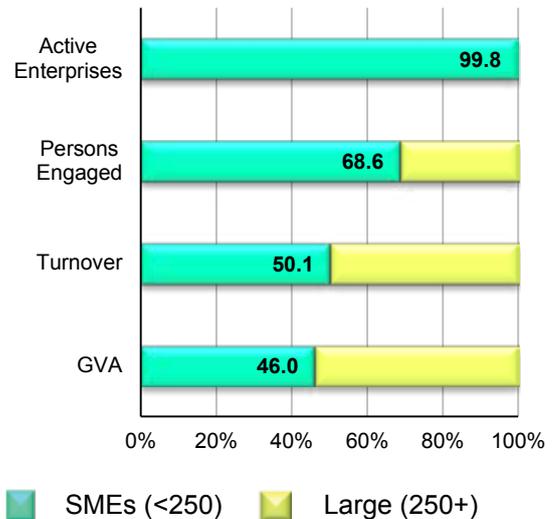
The international comparisons data in Chapters 6 and 10 and in the special article on the Distribution sector are sourced from the [Eurostat website](#).

# Six Key Findings from Business in Ireland 2011

## 1. Key statistics on small and medium enterprises (SMEs)

In 2011, SMEs (employing less than 250 persons) accounted for 99.8% of active enterprises, 68.6% of persons engaged, 50.1% of turnover and 46.0% of gross value added (GVA). GVA is the gross income from operating activities and is the balance available to enterprises to pay employees and realise a return on investment. It is noticeable that while SMEs employed almost seven in every ten persons in the business economy, they accounted for less than half of GVA. See Figure 1.1 and Chapter 3.

Figure 1.1 SME percentage share of key variables, 2011



## 2. Categorising SMEs by type of enterprise

In 2011, SMEs generated €41.1 billion in GVA. Irish-owned SMEs that were solely engaged with the domestic economy (no exports or imports) accounted for 39.7% of GVA while they accounted for 62.0% of the employment in all SMEs.

Irish-owned SMEs that engaged in international trade (either exported or imported goods/services) in 2011 accounted for a further 27.6% of GVA while their SME employment share was 27.3%.

Foreign-owned SMEs that engaged in international trade accounted for just less than a quarter of GVA while foreign-owned SMEs solely engaged with the domestic economy accounted for the remaining 10.0% of GVA. While foreign-owned SMEs accounted for almost a third of GVA in all SMEs, they only accounted for 10.7% of total SME employment. See Figure 1.2, Table 1.1 and Chapter 3.

Figure 1.2 Gross value added in SMEs by type of enterprise, 2011



Table 1.1 GVA and persons engaged in SMEs by type of enterprise, 2011

	GVA	Persons engaged <sup>1</sup>	GVA per person engaged
Irish trader	11,360	229,255	49,552
Irish non-trader	16,322	520,162	31,379
Foreign trader	9,350	56,138	166,554
Foreign non-trader	4,093	33,425	122,453
<b>All SMEs</b>	<b>41,124</b>	<b>838,980</b>	<b>49,018</b>

Source: CSO structural business surveys

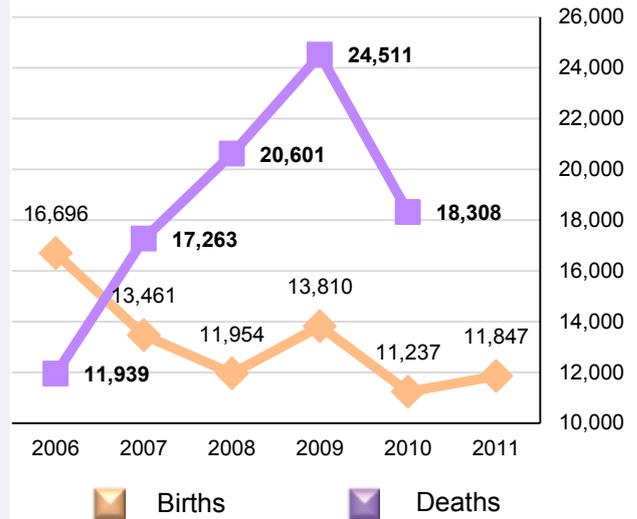
<sup>1</sup> The persons engaged in this table were taken from the CSO business surveys rather than the CSO Business Demography statistics.

### 3. Signs of improvement in the business environment for enterprises

The number of enterprise births (new enterprises created) has fallen over the period 2006 to 2011. In 2006 there were almost 16,700 enterprises born but by 2011 this figure had fallen to over 11,800 births. However, there were signs of improvement as the 2011 births increased by about 600 enterprises compared to the 2010 figure.

The number of enterprise deaths (enterprises that ceased trading) rose steadily between the years 2006 to 2009 as the economy underwent a major contraction. There was evidence of an improvement in the business environment in 2010 as there was a significant fall in the number of enterprise deaths compared to 2009. In 2009, the number of enterprise deaths was 24,500 while in 2010 this figure had fallen to 18,300. See *Figure 1.3 and Chapter 4*.

**Figure 1.3 Number of births and deaths of enterprises, 2006 to 2011**



### 4. Business productivity in Ireland (GVA per person engaged)

GVA per person engaged was over €76,000 for all enterprises and over €43,000 for indigenous Irish-owned enterprises.

GVA per person engaged for all micro enterprises (<10 persons engaged) was almost €38,000 while for all large enterprises (250+ persons engaged) the figure was almost €145,000.

When the foreign multinationals were excluded, the productivity measure for each of the size classes was reduced considerably. This was particularly evident for large indigenous enterprises where GVA per person engaged at almost €72,000 was approximately half the figure for all large enterprises. See *Figure 1.4 and Chapter 5*.

**Figure 1.4 GVA per person engaged by size class, 2011**

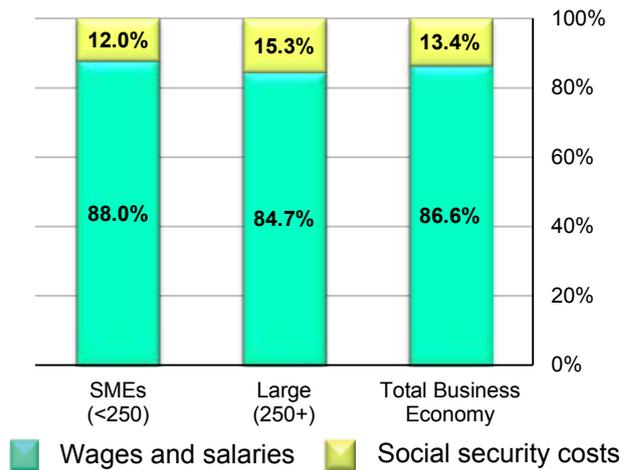


## 5. Business costs facing enterprises

In the total business economy in 2011, over €38.6 billion was paid in personnel costs. Almost €5.2 billion or 13.4% of this was in the form of employers' social security payments e.g. employer's contributions to the PRSI scheme, superannuation funds, PRSA's and other pension schemes. The percentage was higher for large enterprises at 15.3% compared to SMEs at 12.0%.

Enterprises in Ireland paid a low rate of employers' social security payments when compared to the European average rate of 21.5% in 2010. The countries that paid the highest rates of employers' social security costs included Sweden at 30.7%, France at 29.9% and Italy at 28.4%. See *Figure 1.5 and Chapter 6*.

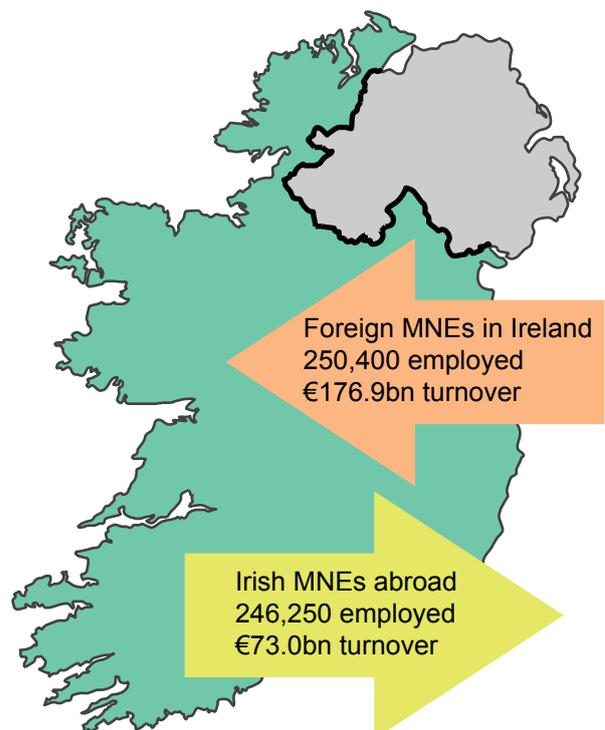
**Figure 1.5 Breakdown of personnel costs for the business economy, 2011**



## 6. Irish multinationals abroad and foreign multinationals in Ireland

In 2011, Irish multinationals (MNEs) employed over 246,000 persons in foreign affiliates. These affiliates generated turnover of almost €73.0 billion. By contrast, foreign multinationals employed over 250,000 persons in affiliates in Ireland. These affiliates generated turnover of almost €176.9 billion. See *Figure 1.6 and Chapter 8*.

**Figure 1.6 Irish MNEs abroad and foreign MNEs in Ireland, 2011**



## An overview of the business economy in Ireland

This chapter outlines the key statistics for the Irish business economy in 2011. Business Demography data are used to analyse the number of enterprises and employment across the five key sectors of Industry, Construction, Distribution, Services and Financial & Insurance. The structural business surveys are used to analyse the related financial variables such as turnover, gross value added, gross operating surplus and personnel costs.

### Business Demography

#### Active enterprises and persons engaged

In 2011 there were over 189,000 active enterprises in the business economy, with over 1.2 million persons engaged. See Table 2.1.

The Services sector was the largest sector in terms of active enterprises and persons engaged with 47.6% of total enterprises and 42.1% of persons engaged. This sector includes a wide range of services such as transportation, accommodation and food, publishing, telecommunications, legal and accounting activities and scientific research.

Construction accounted for 19.4% of all enterprises but only 7.0% of total persons engaged. The Distribution sector (retail and wholesale activity including the sale of motor vehicles) accounted for 22.7% of total enterprises and 26.7% of persons engaged. Industry accounted for 7.3% of all enterprises and 16.6% of total persons engaged. Financial & Insurance activities accounted for only 2.9% of all enterprises and 7.7% of total persons engaged. See Figures 2.1 and 2.2.

Figure 2.1 Number of active enterprises by sector, 2011

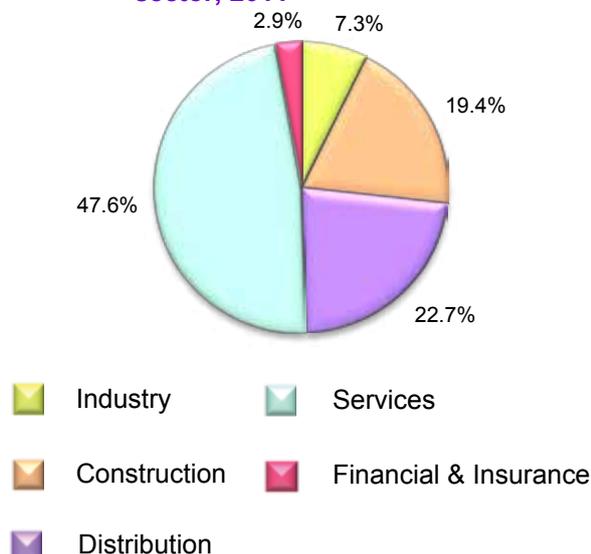
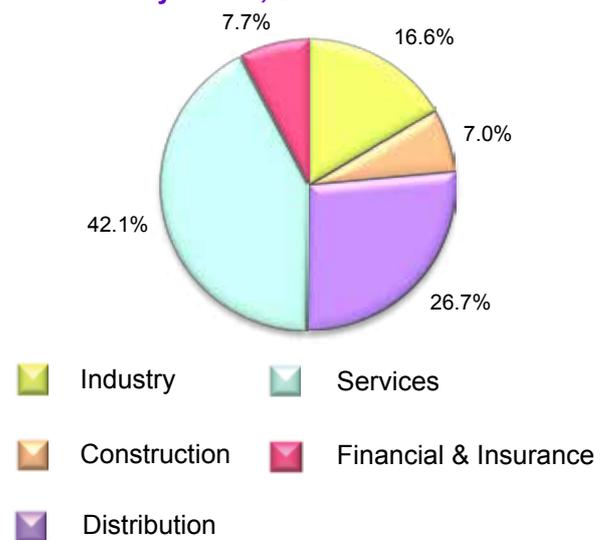
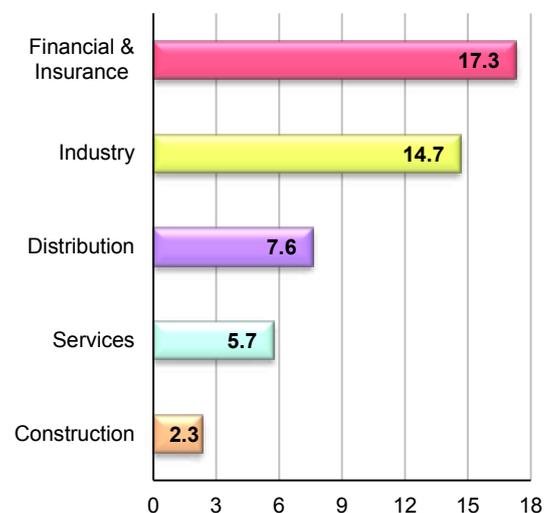


Figure 2.2 Number of persons engaged by sector, 2011



The Industry sector and Financial & Insurance activities sector had the highest number of persons engaged per enterprise at 14.7 and 17.3 respectively. See Figure 2.3 and Table 2.1.

Figure 2.3 Number of persons engaged per enterprise by sector, 2011



## Business Operations

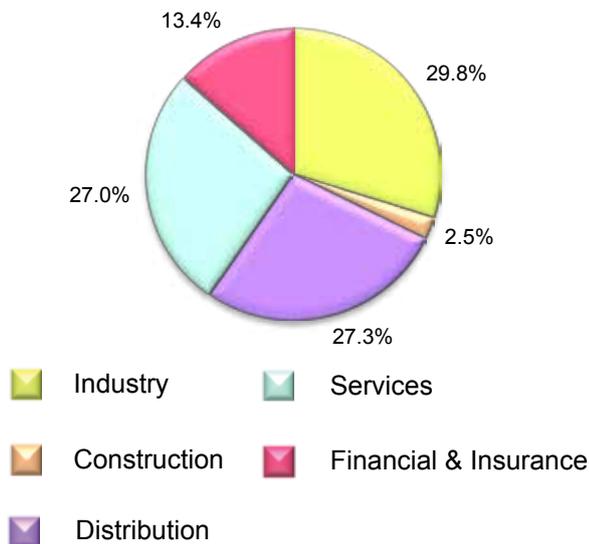
### Turnover

Turnover is the total invoiced by enterprises during the reference period. See Appendix 2 for full definitions.

From a turnover perspective, Industry was the largest sector accounting for 29.8% of the €376.7 billion in total turnover in the business economy.

The Distribution sector also accounted for a large proportion of turnover at 27.3%. Services, the largest sector in terms of number of enterprises and number of persons engaged, accounted for 27.0% of turnover. Financial & Insurance activities<sup>1</sup> accounted for 13.4% of total turnover while the Construction sector only accounted for 2.5%. See Figure 2.4 and Table 2.1.

**Figure 2.4 Total turnover in the business economy by sector, 2011**

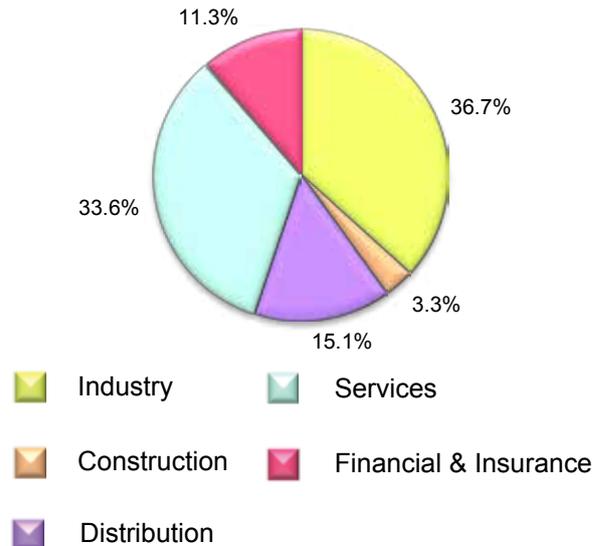


### Gross value added (GVA)

GVA is the gross income from operating activities and is the balance available to enterprises to pay employees and realise a return on investment. See Appendix 2 for full definitions.

Business sectors generated €100.6 billion GVA in 2011. Industry and Services contributed the most, accounting for 36.7% and 33.6% respectively. Distribution contributed 15.1% of the total GVA with Financial & Insurance activities accounting for 11.3% and Construction accounting for 3.3%. See Figure 2.5 and Table 2.1.

**Figure 2.5 Total GVA in the business economy by sector, 2011**



### How GVA is used in the business economy

GVA is split between gross operating surplus and personnel costs. Gross operating surplus is the balance available to the enterprise which allows it to provide a return to shareholders, to pay taxes and to finance all or part of its investment. Personnel costs are defined as the total remuneration, in cash or in kind, payable by an employer to an employee. See Appendix 2 for full definitions.

Gross operating surplus accounted for the larger share of GVA in 2011 at €58.3 billion or 57.9%. Personnel costs accounted for €42.4 billion or 42.1% of GVA. See Figure 2.6 and Table 2.1.

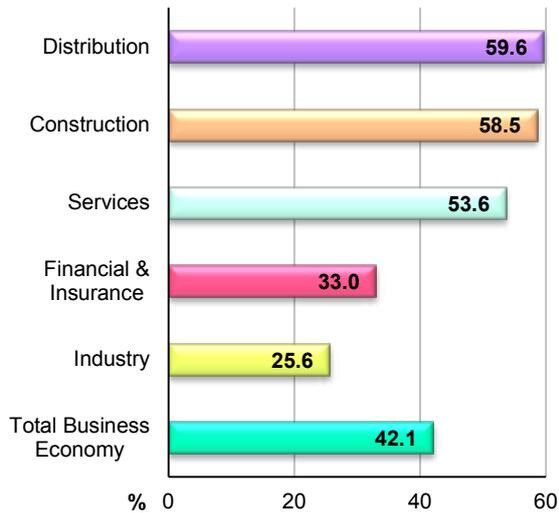
**Figure 2.6 Breakdown of GVA in the business economy, 2011**



<sup>1</sup> The Business Operations data for Financial & Insurance activities was calculated using data from banks and insurance corporations only. See Chapter 9.

Distribution paid the highest proportion of GVA in personnel costs at 59.6% with Construction only marginally lower at 58.5%. Services recorded a figure of 53.6% while Financial & Insurance activities paid 33.0% and Industry paid the lowest proportion at 25.6%. See Figure 2.7 and Table 2.1.

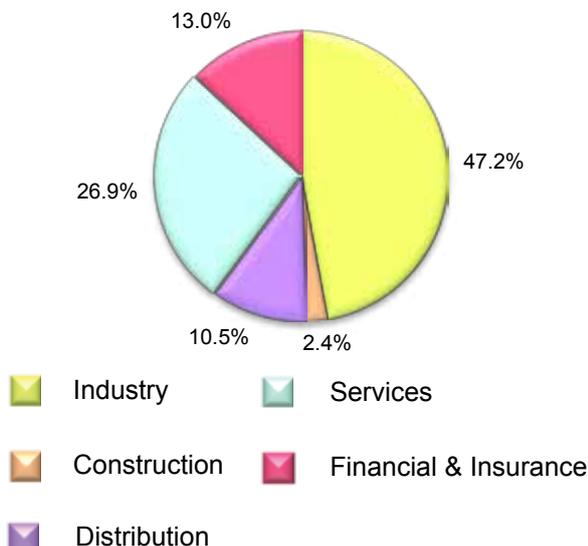
**Figure 2.7 Personnel costs as a percentage of GVA by sector, 2011**



### Gross operating surplus and personnel costs by broad sector

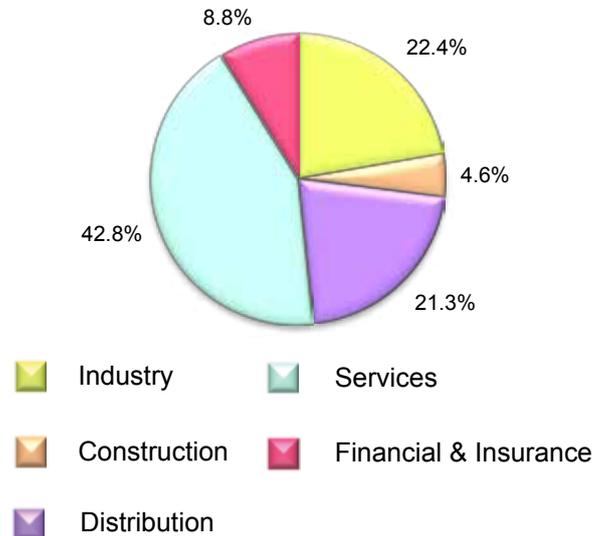
Industry accounted for almost half or 47.2% of the total gross operating surplus in the business economy while Services contributed 26.9%. Financial & Insurance activities accounted for 13.0% while Distribution and Construction accounted for 10.5% and 2.4% respectively. See Figure 2.8 and Table 2.1.

**Figure 2.8 Gross operating surplus in the business economy by sector, 2011**



Services accounted for the largest proportion of personnel costs at 42.8%. Industry and Distribution both contributed just over a fifth each at 22.4% and 21.3% respectively. Financial & Insurance activities accounted for 8.8% of personnel costs while Construction contributed 4.6%. See Figure 2.9 and Table 2.1.

**Figure 2.9 Personnel costs in the business economy by sector, 2011**



### Turnover per person engaged and GVA per person engaged<sup>2</sup>

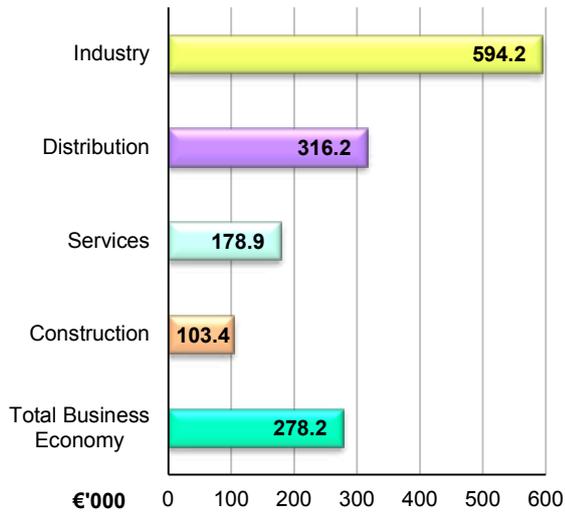
Turnover per person engaged and GVA per person engaged are simple measures of labour productivity<sup>3</sup>. Note that the presence of foreign multinationals in Ireland has a significant impact on these measures. In later chapters, labour productivity will be presented with and without foreign multinationals.

Turnover per person engaged averaged over €278,000 in 2011 across all sectors. There were large differences across individual sectors with Industry recording the highest figure at over €594,000 while Construction recorded the lowest figure at over €103,000. See Figure 2.10 and Table 2.1.

<sup>2</sup> These indicators were calculated using the number of persons engaged on the survey forms. Financial & Insurance activities were excluded from this calculation as the number of persons engaged was not available from the survey forms.

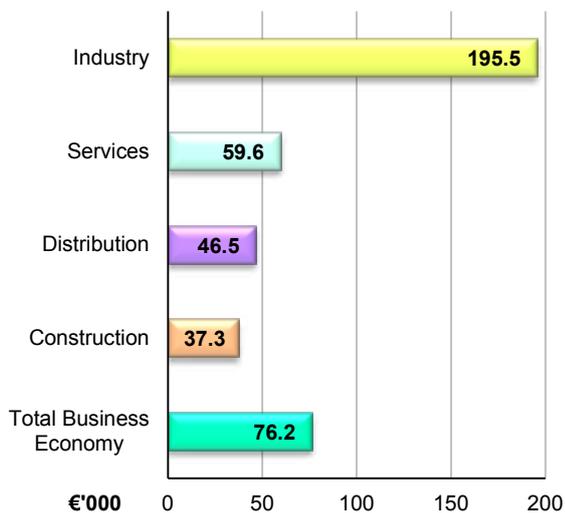
<sup>3</sup> Number of persons engaged is used as the measure for labour input rather than the number of full-time equivalents (FTEs).

**Figure 2.10 Turnover per person engaged by sector, 2011**



GVA per person engaged averaged over €76,000 across all sectors. Each individual sector reported a figure less than the average business economy, with the exception of Industry, which reported GVA per person engaged of almost €196,000. This was followed by Services at almost €60,000. The Construction sector had the lowest GVA per person engaged at over €37,000. See Figure 2.11 and Table 2.1.

**Figure 2.11 GVA per person engaged by sector, 2011**



## Profitability

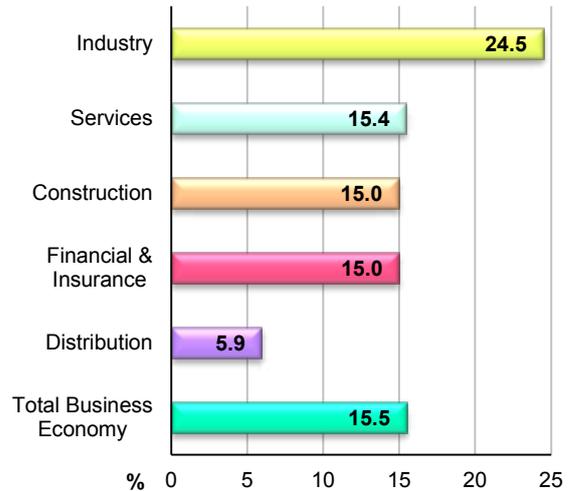
GVA as a percentage of turnover and gross operating surplus as a percentage of turnover are measures of enterprise profitability.

Specifically looking at gross operating surplus as a percentage of turnover, the objective is to analyse the proportion of sales that remains in the enterprises after all expenses have been paid. Profitability

across all sectors in the business economy was 15.5% of turnover.

Industry was the most profitable sector with an operating surplus of 24.5% of turnover. Services, Construction and Financial & Insurance activities recorded similar profitability levels at about 15.0%. Distribution was the least profitable with an operating surplus of 5.9%. See Figure 2.12 and Table 2.1.

**Figure 2.12 Gross operating surplus as a percentage of turnover by sector, 2011**



**Table 2.1 Main indicators for all business sectors, 2011**

	Unit	Industry	Construction	Distribution	Services <sup>1</sup>	Financial and Insurance <sup>2</sup>	Total Business Economy
<b>Business Demography</b>							
Active enterprises	No	13,822	36,747	42,966	90,066	5,454	189,055
Persons engaged <sup>3</sup>	No	202,512	85,306	326,303	514,598	94,328	1,223,047
Employees	No	197,510	62,560	304,815	460,414	93,380	1,118,679
Average persons engaged per enterprise	No	14.7	2.3	7.6	5.7	17.3	6.5
<b>Business Operations</b>							
Turnover	€m	112,300	9,316	102,965	101,547	50,603	376,731
Production value	€m	105,950	8,501	29,852	81,959	22,669	248,931
Gross value added of which	€m	36,957	3,363	15,157	33,833	11,326	100,636
Gross operating surplus	€m	27,489	1,394	6,123	15,686	7,589	58,281
Personnel costs	€m	9,468	1,969	9,034	18,147	3,738	42,356
Personnel costs as % of GVA	%	25.6%	58.5%	59.6%	53.6%	33.0%	42.1%
Turnover per person engaged <sup>4</sup>	€	594,182	103,385	316,159	178,898	n/a	278,169
GVA per person engaged <sup>4</sup>	€	195,542	37,322	46,541	59,604	n/a	76,177
GVA as % of Turnover	%	32.9%	36.1%	14.7%	33.3%	22.4%	26.7%
GOS as % of Turnover	%	24.5%	15.0%	5.9%	15.4%	15.0%	15.5%

**Sources:** CSO Business Demography and Structural Business Surveys

<sup>1</sup> Business Operations data includes NACE R92, R93, S95 and S96 whereas Business Demography data excludes these.

<sup>2</sup> Business Operations data includes banks and insurance companies only whereas Business Demography data includes all financial enterprises.

<sup>3</sup> Persons engaged include employees, proprietors and family members.

<sup>4</sup> These indicators were calculated using the number of persons engaged on the survey forms. Financial and Insurance activities were excluded from this calculation as the number of persons engaged was not available from the survey forms.

## Technical Notes:

1. The data for Business Demography are based on the CSO Central Business Register. The Business Register is a register of all enterprises that are active in the State and is based on enterprises that are registered with the Revenue Commissioners. *See Appendix 1.*
2. In contrast to the Business Demography data, the Business Operations data are primarily sourced from the main structural business surveys. *See Appendix 1.*
3. The coverage of the structural business surveys is generally quite consistent with the Business Demography data. However, there are some exceptions; for example, the Business Operations data for Services includes market services from NACE Sections R and S (approximately 10,000 enterprises from R92, R93, S95 and S96) while the Business Demography data excludes these sectors.
4. In the Financial & Insurance activities sector the Business Operations data covers banks and insurance corporations whereas the Business Demography data includes all financial companies that are deemed active on the CSO Central Business Register (with the exception of financial holding companies). The main financial sectors not included in the Business Operations data are Other Financial Service Activities (NACE K649) and Activities Auxiliary to Financial Services and Insurance Activities (K66). *See Chapter 9.*
5. The Financial & Insurance activities sector is unusual in the sense that the normal definitions of turnover, production value etc do not apply to credit institutions and insurance companies. Therefore, European-wide definitions have been devised in the Structural Business Statistics to estimate these variables in order to compare the financial sector with the rest of the business economy. *See Chapter 9 and Appendix 2.*

## Small and medium enterprises (SMEs)

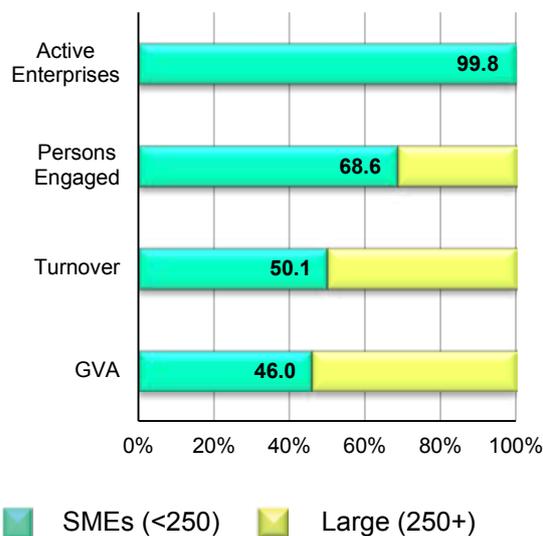
Small and medium enterprises (SMEs) have received much attention recently due to the large employment in this sector and its potential to support a recovery in the Irish economy. This chapter outlines some of the main CSO statistics available for SMEs. Chapter 5, which deals with business performance in Ireland, also contains data on these enterprises.

SMEs are defined as enterprises with less than 250 persons engaged. In this chapter SMEs are further split into micro enterprises with less than 10 persons engaged, other small enterprises with between 10 and 49 persons engaged and medium sized enterprises with between 50 and 249 persons engaged. See Appendix 3. See Tables 3.1, 3.2 and 3.3 in this chapter for more detail on the data used in graphs.

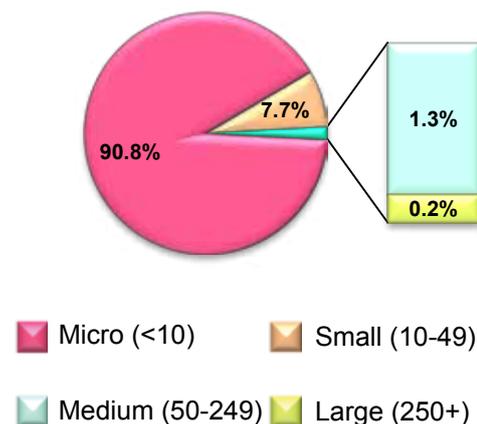
### Key Statistics on SMEs

SMEs accounted for 99.8% of active enterprises, 68.6% of persons engaged, 50.1% of turnover and 46.0% of gross value added (GVA). It is noticeable that while SMEs employed almost seven in every ten persons in the business economy, they accounted for less than half of GVA. See Figure 3.1.

**Figure 3.1 SME percentage share of key variables, 2011**



**Figure 3.2 Number of active enterprises by size class for all sectors, 2011**



Micro-enterprises employed 27.0% of persons engaged in the business economy while other small enterprises accounted for a further 22.6%. Medium sized enterprises accounted for 19.0% of total persons engaged.

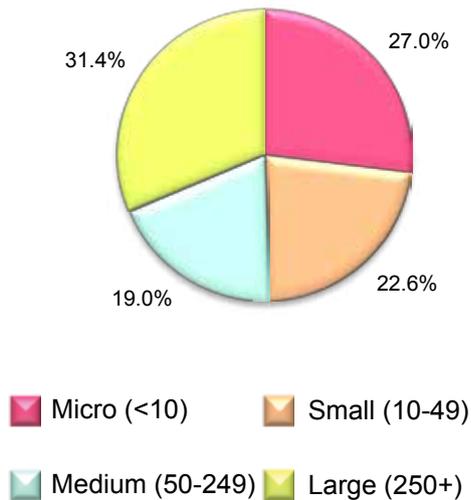
Large enterprises accounted for only 0.2% of all enterprises but employed 31.4% of total persons engaged. See Figures 3.2 and 3.3.

### Business Demography - Active Enterprises and Persons Engaged

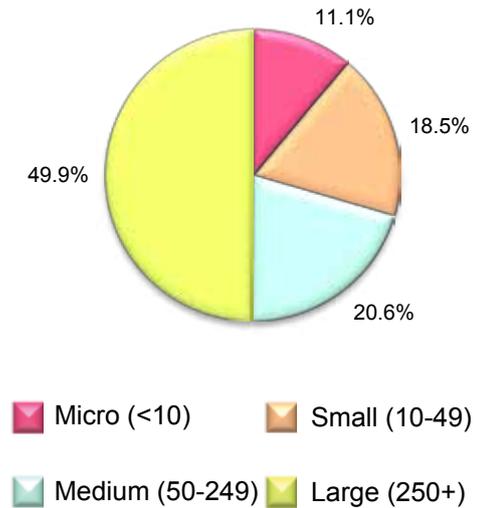
Looking at the CSO Business Demography data in more detail, SMEs can be broken down into micro, other small and medium sized enterprises.

The majority of enterprises in the business economy at 90.8% were micro-enterprises. A further 7.7% were other small enterprises while 1.3% were classified as medium sized enterprises. Only 0.2% of enterprises were large with greater than 250 persons engaged. See Figure 3.2.

**Figure 3.3 Number of persons engaged by size class for all sectors, 2011**



**Figure 3.4 Turnover by size class for all sectors, 2011**



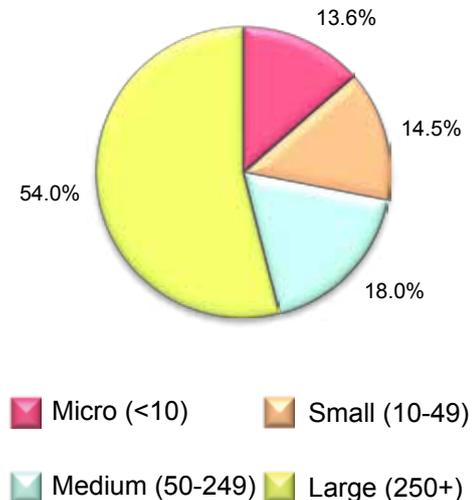
### Business Operations<sup>1</sup> - Turnover and GVA

The structural business surveys were used to analyse the financial variables of turnover and GVA by employment size class. Enterprises were classified by employment size class based on the number of persons engaged provided on the business survey forms. This is in contrast to the Business Demography data provided in Figures 3.1 to 3.3 where the number of persons engaged was taken from administrative sources.

As seen previously in Figure 3.1, SMEs accounted for just over half of total turnover in the business economy. This amounted to €163.5 billion for SMEs compared to €162.7 billion for large enterprises. Micro enterprises accounted for 11.1% of total turnover, other small enterprises accounted for 18.5% and medium sized enterprises accounted for 20.6%. See Figure 3.4.

SMEs accounted for €41.1 billion or 46.0% of total GVA in the business economy in 2011. Micro enterprises accounted for 13.6% of total GVA, other small enterprises accounted for 14.5% and medium sized enterprises accounted for 18.0%. See Figure 3.5.

**Figure 3.5 GVA by size class for all sectors, 2011**



Using the structural business surveys, it is possible to categorise SMEs into foreign versus Irish-owned enterprises and also those SMEs that engage in international trade versus those that do not. If an enterprise exported or imported goods/services it is categorised as engaged in international trade.

In relation to the €41.1 billion in GVA generated by SMEs in 2011, 39.7% was accounted for by Irish

<sup>1</sup> In contrast to the Business Demography statistics, the Financial & Insurance Activities sector (NACE Rev. 2 Section K) was not included in the Business Operations data due to the unavailability of persons engaged data on the relevant survey forms. The Services sectors of R92, R93, S95 and S96 were included in the analysis.

SMEs that were solely engaged with the domestic economy. This type of SME accounted for 62.0% of the employment in all SMEs. Irish SMEs that engaged in international trade in 2011 accounted for a further 27.6% of GVA while their SME employment share was 27.3%.

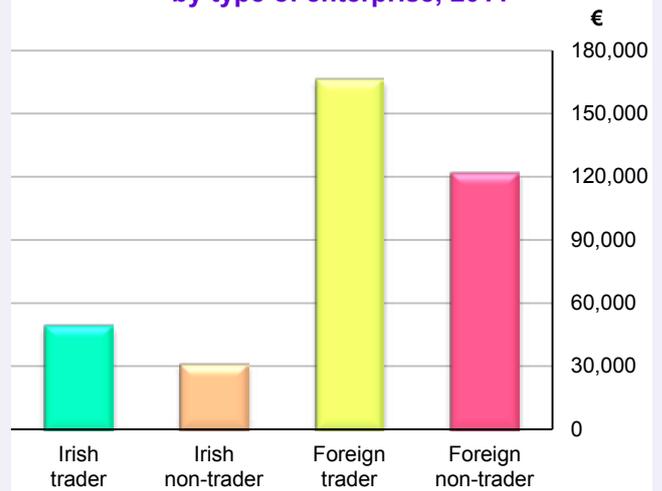
Foreign-owned SMEs that engaged in international trade accounted for just less than a quarter of GVA, while foreign-owned SMEs solely engaged with the domestic economy accounted for the remaining 10.0% of GVA. While foreign-owned SMEs accounted for almost a third of GVA in all SMEs, they only accounted for 10.7% of total SME employment. See Figure 3.6 and Table 3.1.

**Figure 3.6 Gross value added in SMEs by type of enterprise, 2011**



Foreign-owned SMEs generated significant amounts of GVA given the number of persons engaged in these enterprises. GVA per person engaged in foreign-owned SMEs which were engaged in international trade was almost €167,000. The figure for foreign-owned SMEs that were solely engaged in the domestic economy was over €122,000. The equivalent figures for Irish-owned SMEs were much lower compared to foreign-owned SMEs at almost €50,000 (engaged in international trade) and just over €31,000 (engaged solely with the domestic economy). See Figure 3.7 and Table 3.1.

**Figure 3.7 GVA per person engaged in SMEs by type of enterprise, 2011**



**Table 3.1 GVA and persons engaged in SMEs by type of enterprise, 2011**

	GVA	Persons engaged <sup>1</sup>	GVA per person engaged
Irish trader	11,360	229,255	49,552
Irish non-trader	16,322	520,162	31,379
Foreign trader	9,350	56,138	166,554
Foreign non-trader	4,093	33,425	122,453
<b>All SMEs</b>	<b>41,124</b>	<b>838,980</b>	<b>49,018</b>

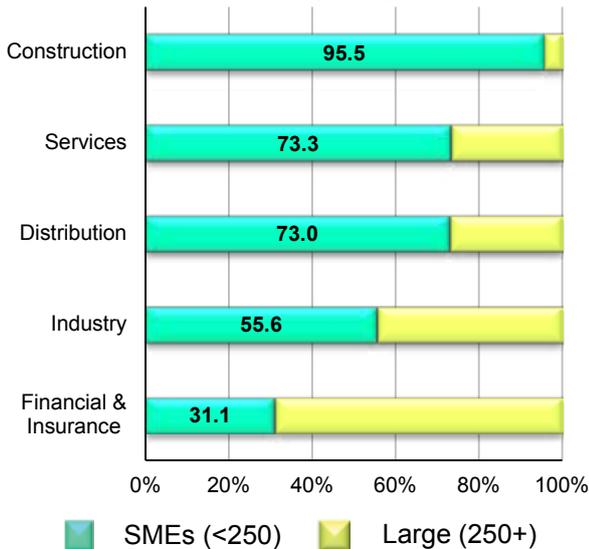
Source: CSO structural business surveys

<sup>1</sup> The persons engaged in this table were taken from the CSO business surveys rather than the CSO Business Demography statistics.

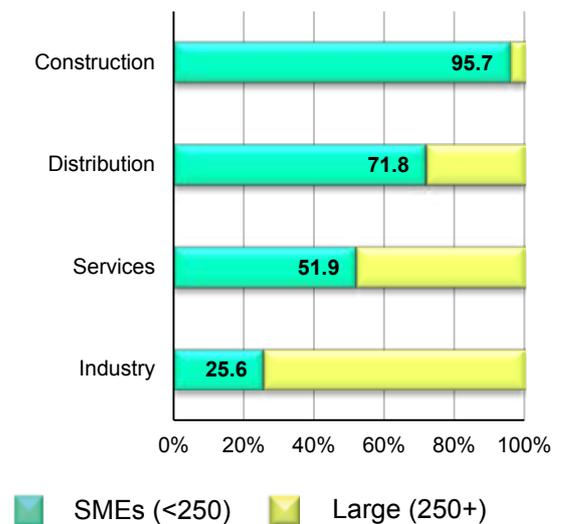
### Business Demography – SME shares within sectors

There were large variations across sectors when looking at the SME share of employment. In Construction, 95.5% of persons engaged worked in SMEs while the equivalent figures for Industry and Financial & Insurance activities were 55.6% and 31.1% respectively. See Figure 3.8.

**Figure 3.8 SME percentage share of persons engaged by sector, 2011**



**Figure 3.10 SME percentage share of GVA by sector, 2011**



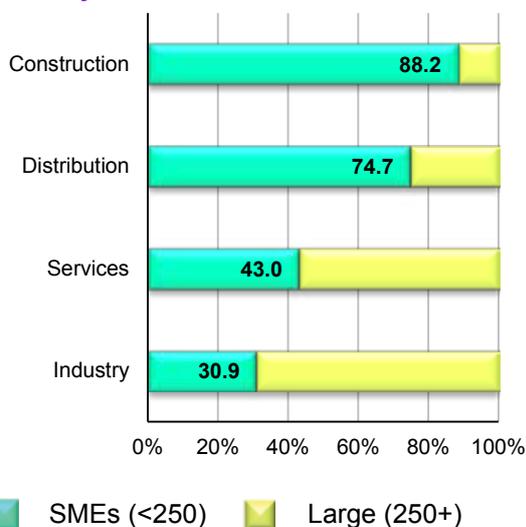
### Business Operations - SME shares within sectors

The SME share of employment was significantly higher than the SME share of turnover across the broad sectors. This implies a lower turnover per person engaged for SMEs compared to large enterprises. For example, in Industry the SME share of employment was 55.6% while the SME share of turnover was 30.9%. In Services, the SME share of employment was 73.3% while the SME share of turnover was 43.0%. The exception to this was in Distribution where SMEs had a slightly higher share of turnover when compared to employment. See Figures 3.8 and 3.9.

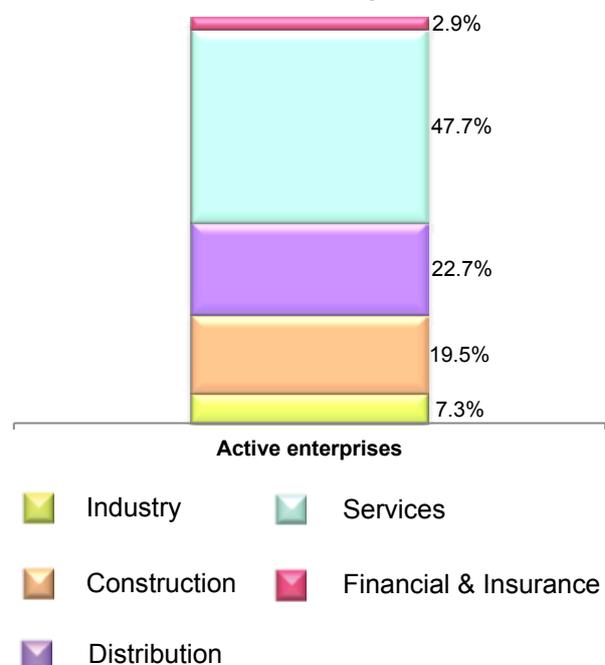
### Business Demography – Sectoral breakdown of SME totals

The sectoral breakdown of SMEs shows that almost half or 47.7% of active enterprises were in Services. This was followed by 22.7% in Distribution and 19.5% in Construction. The remaining SMEs were either in Industry with 7.3% or Financial & Insurance activities with 2.9%. See Figure 3.11.

**Figure 3.9 SME percentage share of turnover by sector, 2011**



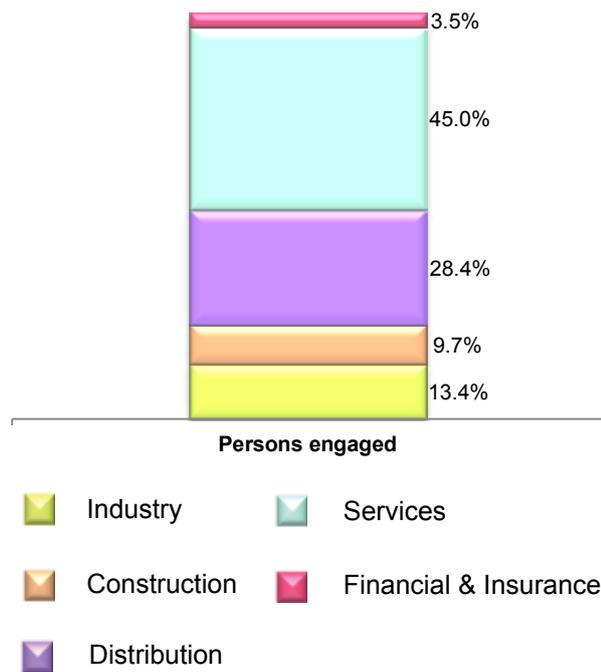
**Figure 3.11 Sectoral breakdown of SMEs, number of enterprises, 2011**



The SME share of GVA within the broad sectors shows a similar picture to turnover. See Figure 3.10.

The sectoral profile of employment in SMEs shows some differences compared to the sectoral profile of active enterprises. For example, Construction only accounted for 9.7% of SME employment while it accounted for double that percentage in active enterprises. Industry accounted for 13.4% of SME employment while it only accounted for about half that percentage in active enterprises. See Figures 3.11 and 3.12.

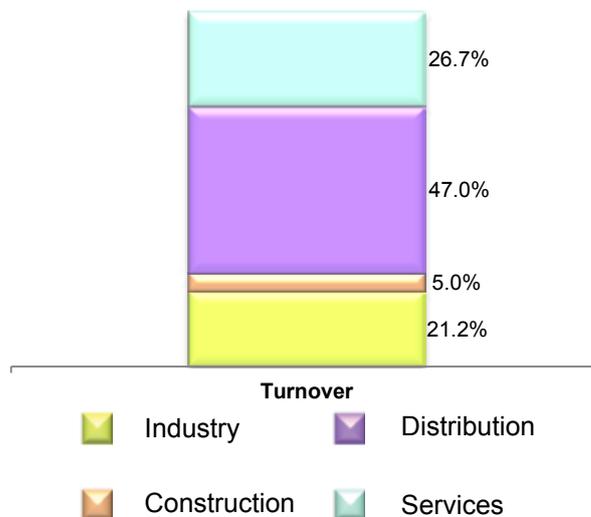
**Figure 3.12 Sectoral breakdown of SMEs, persons engaged, 2011**



### Business Operations – Sectoral breakdown of SME totals

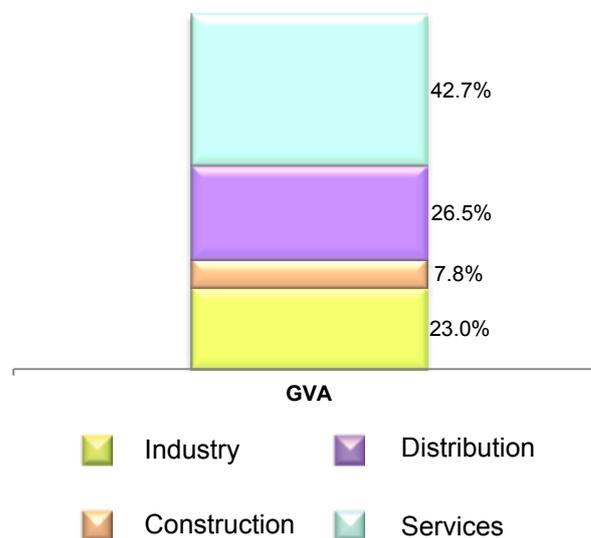
The sector that made the largest contribution to turnover in SMEs at 47.0% was Distribution. This was followed by Services and Industry with 26.7% and 21.2% respectively. Construction contributed far less at 5.0%. See Figure 3.13.

**Figure 3.13 Sectoral breakdown of SMEs, turnover, 2011**



The sector that made the largest contribution to SME gross value added at 42.7% was Services. Distribution contributed the next largest share at 26.5%. Industry, which is a high value added sector, contributed 23.0% of total SME gross value added, while Construction contributed 7.8%. See Figure 3.14.

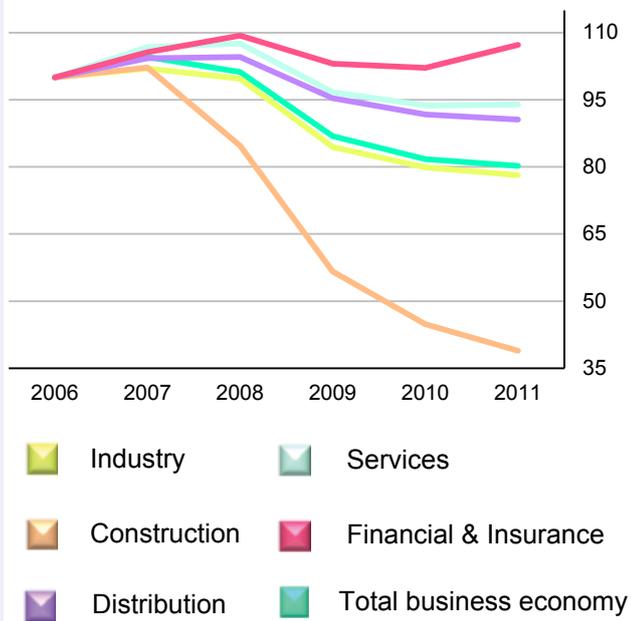
**Figure 3.14 Sectoral breakdown of SMEs, gross value added, 2011**



## Impact of the downturn on SME employment

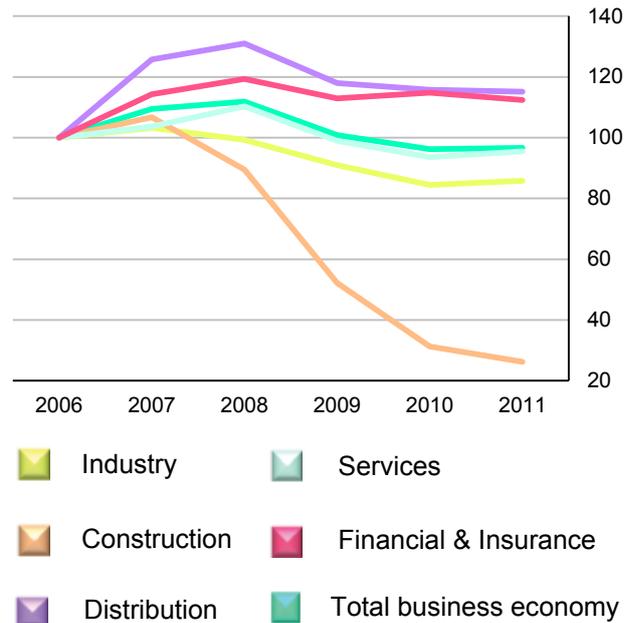
Employment in SMEs for the total business economy fell from 1,045,000 in 2006 to 839,000 in 2011 or to 80.3% of the 2006 level. The sector that was impacted the most was Construction where SME employment in 2011 was only 38.9% of the 2006 level with almost 128,000 job losses. Industry was also impacted quite heavily with SME employment in the sector falling to 78.2% of the 2006 level which corresponds to over 31,000 job losses. The only sector where SME employment increased over this period was in Financial & Insurance activities. See *Figure 3.15*.

**Figure 3.15 Index of employment in SMEs by sector, 2006 to 2011 (base year 2006 = 100)**



Data for large enterprises has also been included for comparison purposes. Employment in large enterprises was 384,000 in 2011 or 96.6% of the 2006 level for the total business economy. In contrast to the SMEs, there was a recovery in the numbers employed by large enterprises in 2011 rising marginally from 383,000 in 2010 to 384,000. This rise was driven by the Industry and Services sectors while employment in the sectors of Distribution, Construction and Financial & Insurance activities continued to decline. See *Figure 3.16*.

**Figure 3.16 Index of employment in large enterprises by sector, 2006 to 2011 (base year 2006 = 100)**



**Table 3.2 Number of active enterprises and persons engaged by sector and size class, 2011**

Class Size	Industry			Construction			Distribution			Services			Financial and Insurance <sup>1</sup>			Total Business Economy		
	Active Enterprises	Persons Engaged	No.	Active Enterprises	Persons Engaged	No.	Active Enterprises	Persons Engaged	No.									
	Micro (<10)	11,465	23,139		35,658	57,408		37,132	88,149		82,602	152,863		4,795	8,080		171,652	329,639
Small (10-49)	1,690	35,356		1,011	17,331		5,140	95,586		6,185	118,776		496	9,672		14,522	276,721	
Medium (50-249)	529	54,096		69	6,720		608	54,360		1,110	105,710		105	11,583		2,421	232,469	
<b>All SMEs (&lt;250)</b>	<b>13,684</b>	<b>112,591</b>		<b>36,738</b>	<b>81,459</b>		<b>42,880</b>	<b>238,095</b>		<b>89,897</b>	<b>377,349</b>		<b>5,396</b>	<b>29,335</b>		<b>188,595</b>	<b>838,829</b>	
Large	138	89,921		9	3,847		86	88,208		169	137,249		58	64,993		460	384,218	
<b>All sizes</b>	<b>13,822</b>	<b>202,512</b>		<b>36,747</b>	<b>85,306</b>		<b>42,966</b>	<b>326,303</b>		<b>90,066</b>	<b>514,598</b>		<b>5,454</b>	<b>94,328</b>		<b>189,055</b>	<b>1,223,047</b>	

Source: CSO Business Demography

<sup>1</sup> Excludes activities of financial holding companies (K642).

**Table 3.3 Turnover and gross value added by sector and size class, 2011**

Class Size	Industry			Construction			Distribution			Services <sup>1</sup>			Total Business Economy <sup>1</sup>		
	Turnover	Gross Value Added	€m	Turnover	Gross Value Added	€m	Turnover	Gross Value Added	€m	Turnover	Gross Value Added	€m	Turnover	Gross Value Added	€m
	Micro (<10)	3,338	1,281		3,546	1,866		14,743	2,724		14,489	6,248		36,116	12,118
Small (10-49)	8,129	1,900		2,277	697		34,152	4,272		15,659	6,106		60,217	12,974	
Medium (50-249)	23,180	6,277		2,398	655		28,012	3,892		13,541	5,208		67,132	16,032	
<b>All SMEs (&lt;250)</b>	<b>34,647</b>	<b>9,458</b>		<b>8,221</b>	<b>3,218</b>		<b>76,907</b>	<b>10,888</b>		<b>43,689</b>	<b>17,562</b>		<b>163,465</b>	<b>41,124</b>	
Large	77,653	27,500		1,095	146		26,057	4,270		57,858	16,271		162,663	48,186	
<b>All sizes</b>	<b>112,300</b>	<b>36,957</b>		<b>9,316</b>	<b>3,363</b>		<b>102,965</b>	<b>15,157</b>		<b>101,547</b>	<b>33,833</b>		<b>326,128</b>	<b>89,310</b>	

Source: CSO structural business surveys

<sup>1</sup> Excludes Financial & Insurance activities (NACE Rev.2 Section K) and includes Services sectors of R92, R93, S95, S96.



## Enterprise births, survivals and deaths

CSO Business Demography data monitors the number of enterprise births (new enterprises created) and deaths (enterprises that ceased trading) in the business economy. Births and deaths due to mergers, take-overs, break-ups, change of activity or restructuring of a set of enterprises are all excluded from the data.

This chapter presents this information at a broad sectoral level as well as for the total business economy. It is also possible to track new enterprise births in order to gain a better understanding of the types of business that are more likely to survive the early years of their life cycle<sup>1</sup>.

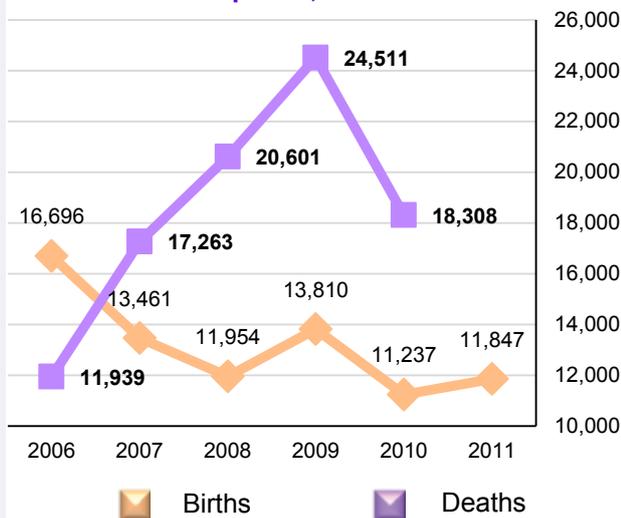
### Births and deaths – enterprise numbers

The number of enterprise births has fallen over the period 2006 to 2011. In 2006 there were nearly 16,700 enterprise births but by 2011 this figure had fallen to just over 11,800. However in 2011 there were signs of improvement as the births figure had increased by almost 600 enterprises compared to the previous year.

The number of enterprise deaths rose steadily between 2006 and 2009 as the economy underwent a major contraction. There was evidence of an improvement in the business environment in 2010 with a significant fall in the number of enterprise deaths compared to 2009.

In 2006 enterprise births exceeded deaths by just under 4,800. However by 2007 the situation had reversed and by 2009 enterprise deaths exceeded births by 10,700. In 2010, enterprise deaths continued to exceed births but the gap had reduced to just over 7,100. See Figure 4.1.

**Figure 4.1 Number of births and deaths of enterprises, 2006 to 2011**

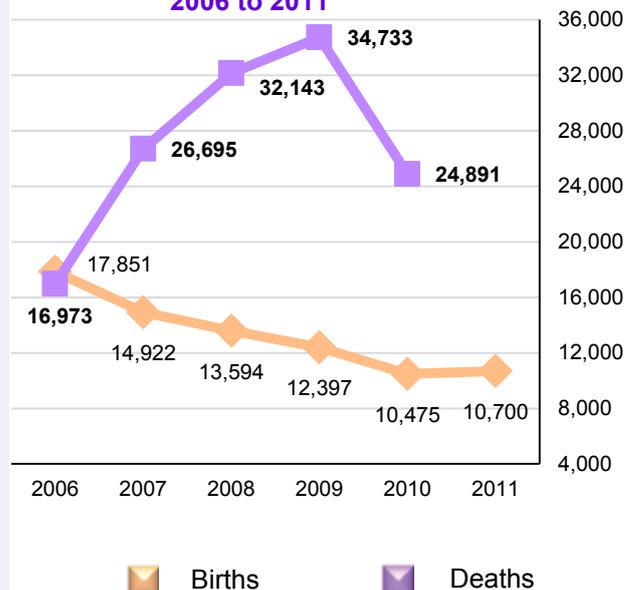


### Births and deaths - employment effects

An important aspect of enterprise births and deaths is the impact on employment in the business economy. The number of persons engaged by newly birthed enterprises in 2006 was nearly 17,900 and in line with the decline in the number of new enterprises, this figure had dropped to 10,700 by 2011. The small improvement in the number of enterprise births between 2010 and 2011 did not translate into a large number of new jobs.

Employment losses as a result of enterprise deaths increased dramatically from 2006 to 2009, rising from almost 17,000 in 2006 to just over 34,700 in 2009. By 2010, there was a significant improvement in this figure however, as the employment losses associated with enterprise deaths fell to almost 24,900. See Figure 4.2.

**Figure 4.2 Number of persons engaged in births and deaths of enterprises, 2006 to 2011**



<sup>1</sup> See Appendix 2 for full definitions of enterprise births and deaths.

## Births by sector – enterprise numbers

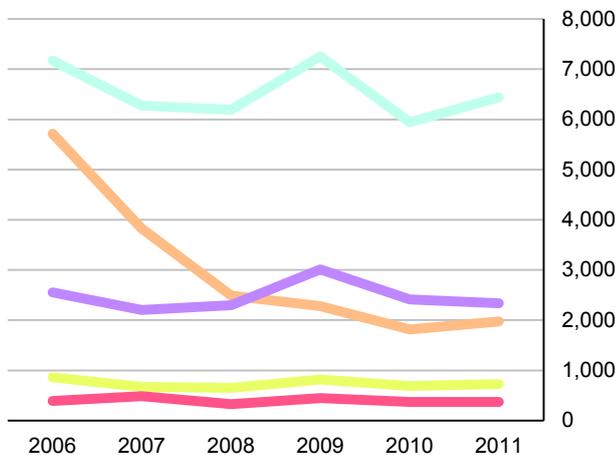
Over the period 2006 to 2011, the Services<sup>2</sup> sector had the highest number of enterprise births each year. The proportion of new births accounted for by Services also consistently increased over this period from 43.0% of new births in 2006 to 54.4% in 2011. This is evidence of the increased importance of Services enterprises in the overall stock of enterprises in the business economy.

Construction largely drove the overall fall in enterprise births in the business economy as the number of births in Construction fell sharply from just over 5,700 (34.2% of all births) in 2006 to almost 2,000 (16.7% of all births) in 2011. The drop of over 3,700 births in this sector represented around three quarters of the overall fall in births in the business economy.

The proportion of total new births from the Distribution sector increased from 15.3% in 2006 to 19.7% in 2011.

The Industry and Financial & Insurance Activities sectors combined, consistently had fewer than 10% of new enterprise births during the period 2006 to 2011. See Figure 4.3.

**Figure 4.3 Number of new births by sector, 2006 to 2011**



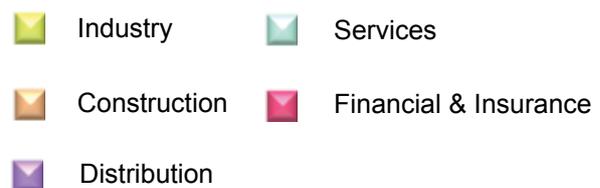
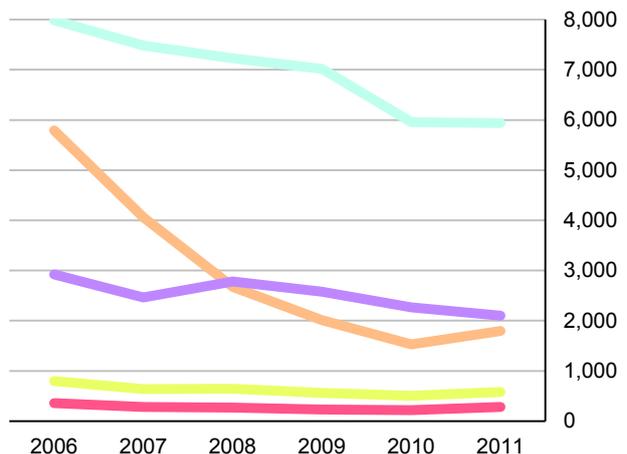
## Births by sector – employment effects

The number of persons engaged in newly born enterprises largely reflects the trends already seen in Figure 4.3.

Although the Services sector has seen a decline in the absolute number of new jobs in enterprise births over the period 2006 to 2011, the proportion of total new jobs accounted for by newly birthed Services enterprises has risen steadily from 44.7% in 2006 to 55.5% in 2011.

The Construction sector created nearly 6,000 new jobs in enterprise births in 2006 but this number had dropped by 69.0% to almost 1,800 in 2011. Although all sectors between 2006 and 2011 saw employment in new enterprise births fall, they were not as dramatic as the decrease in Construction. See Figure 4.4.

**Figure 4.4 Number of persons engaged in new births by sector, 2006 to 2011**



## Deaths by sector – enterprise numbers

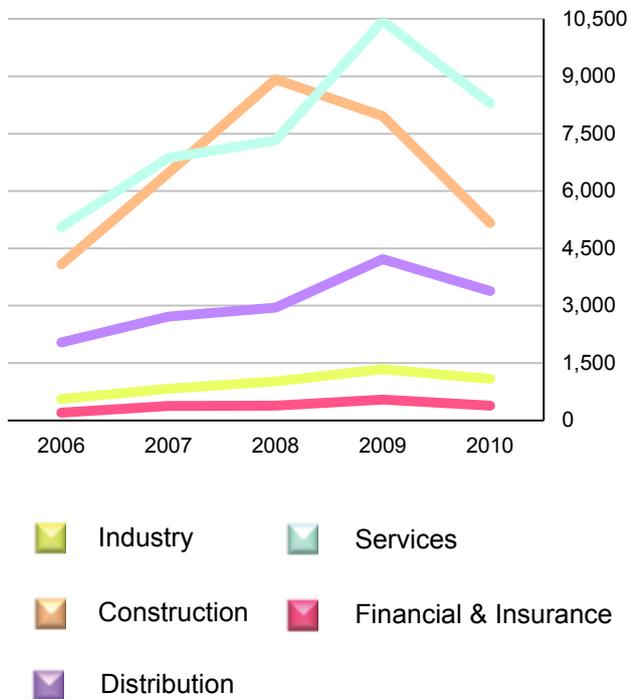
All sectors saw a reduction in enterprise deaths between 2009 and 2010 which is indicative of an improvement in the business environment in Ireland at that time.

The Construction and Services sectors reported the highest numbers of enterprise deaths in each year between 2006 and 2010. These two sectors combined accounted for 76.2% of all enterprise deaths over the period.

<sup>2</sup> See Appendix 3 for full detail on the coverage of the Services sector.

By contrast the Distribution sector accounted for 16.5% of all enterprise deaths over this five year period while Industry accounted for 5.2% and Financial & Insurance Activities accounted for only 2.1%. See Figure 4.5.

**Figure 4.5 Number of enterprise deaths by sector, 2006 to 2010**

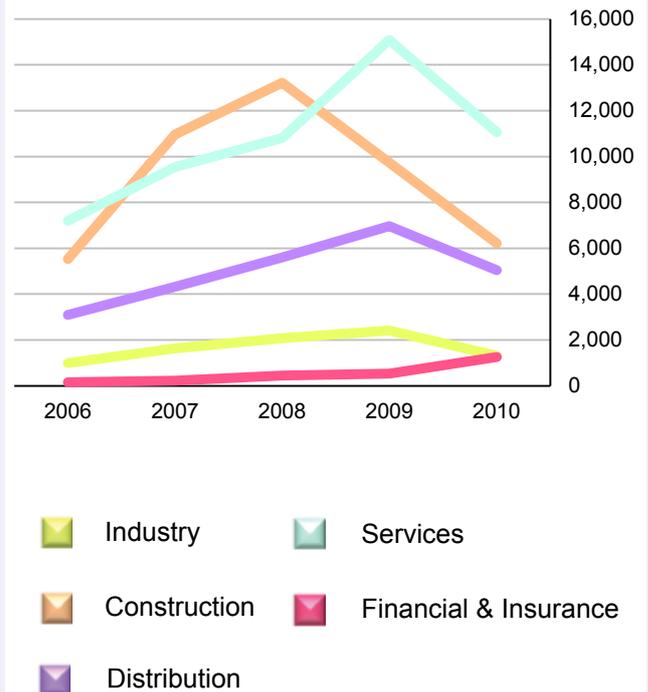


### Deaths by sector – employment effects

For Services and Construction, there were significant falls in the employment losses associated with enterprise deaths between 2009 and 2010. In the Services sector, the associated employment loss fell from just under 15,100 in 2009 to almost 11,100 in 2010. In the Construction sector, the associated employment loss fell from just over 9,700 in 2009 to almost 6,200 in 2010.

The Services sector recorded the most job losses in enterprises that ceased activity over the five year period up to 2010 at nearly 53,700. This was followed by the Construction sector with over 45,600 job losses. Note that these figures do not include job losses from enterprises that were still active in the business economy over this period. See Figure 4.6.

**Figure 4.6 Number of persons engaged in enterprise deaths by sector, 2006 to 2010**



### Survivals<sup>3</sup> – enterprise numbers

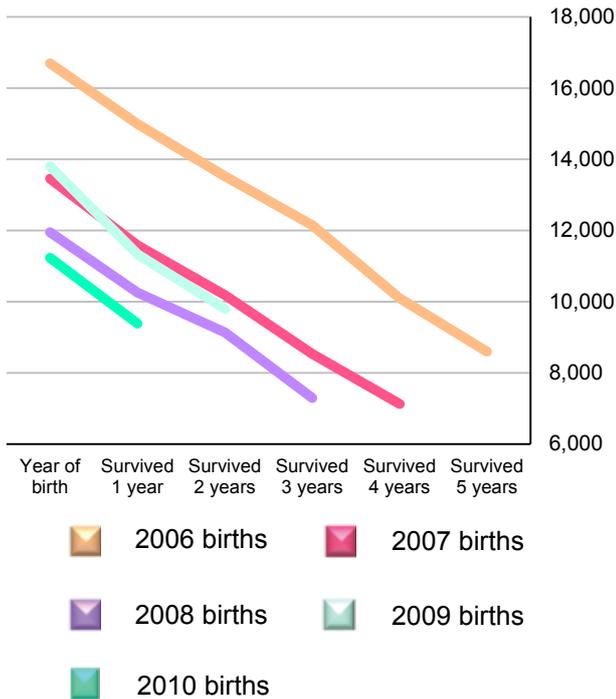
A particularly useful feature of the Business Demography data is the ability to track new enterprise births from year to year to monitor their survival rates.

There were almost 16,700 new enterprises birthed in 2006. Of these, nearly 15,000 enterprises (89.8%) survived one year in business; over 13,500 (81.0%) survived two years in business; almost 12,200 (72.8%) survived three years in business; just under 10,100 (60.5%) survived four years in business and around 8,600 (51.5%) survived at least five years in business.

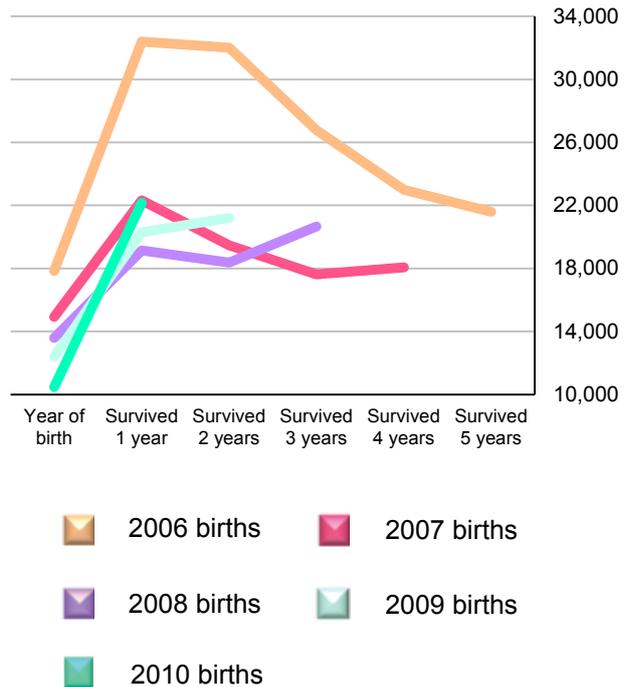
Over this period, the survival rates have declined somewhat. For example, the one-year survival rate declined from 89.8% in 2007 (for 2006 births) to 83.5% in 2011 (for 2010 births). The two-year survival rate declined from 81.0% in 2008 (for 2006 births) to 71.0% in 2011 (for 2009 births). See Figure 4.7.

<sup>3</sup> The survivals data for reference year 2010 (e.g. four year survivals for 2006 births or three year survivals for 2007 births) were revised following their initial publication in 2012.

**Figure 4.7 Number of surviving enterprises by birth year, 2006 to 2011**



**Figure 4.8 Persons engaged in surviving enterprises by birth year, 2006 to 2011**



### Survivals – employment effects

The survival data provides an overview of how the employment created by newly birthed enterprises evolved over a number of years following the year of birth.

Enterprises that were birthed in 2006 and survived to 2011 initially created almost 17,900 jobs in 2006. By 2011, these enterprises employed just under 21,600 persons.

Enterprises that were birthed in 2007 and survived to 2011 initially created just over 14,900 jobs. By 2011, these enterprises employed almost 18,100.

Enterprises that were birthed in 2010 initially created fewer jobs than in previous years at just under 10,500. However, by 2011, the number of jobs in these enterprises had increased to almost 22,200.

Between 2006 and 2009 the rate of growth in employment in enterprises that survived the first year slowed significantly. Enterprises born in 2006 showed an increase in employment of 81.4% in the first year whereas enterprises born in 2008 experienced an employment growth rate of 40.7%.

However, this situation has reversed in more recent years with enterprises born in 2009 and 2010 showing employment growth of 63.7% and 111.5% respectively over the first year. It should be noted however that the initial employment in new births was much lower in 2010 compared to 2006. See *Figure 4.8*.

**Table 4.1 Number of enterprise births and associated persons engaged by sector, 2006 to 2011**

	Enterprise births							Persons engaged in enterprise births						
	2006	2007	2008	2009	2010	2011	Total	2006	2007	2008	2009	2010	2011	Total
Industry	861	672	648	815	691	725	<b>4,412</b>	800	636	645	559	504	584	<b>3,728</b>
Construction	5,717	3,824	2,489	2,278	1,818	1,976	<b>18,102</b>	5,788	4,060	2,674	2,013	1,527	1,793	<b>17,855</b>
Distribution	2,553	2,202	2,298	3,012	2,413	2,335	<b>14,813</b>	2,923	2,465	2,781	2,577	2,266	2,104	<b>15,116</b>
Services	7,174	6,275	6,193	7,256	5,944	6,439	<b>39,281</b>	7,983	7,481	7,227	7,020	5,958	5,939	<b>41,608</b>
Financial & Insurance	390	487	325	449	370	372	<b>2,393</b>	357	280	267	228	220	280	<b>1,632</b>
Total Business Economy	16,696	13,461	11,954	13,810	11,237	11,847	<b>79,005</b>	17,851	14,922	13,594	12,397	10,475	10,700	<b>79,939</b>

Source: CSO Business Demography

**Table 4.2 Number of enterprise deaths and associated persons engaged by sector, 2006 to 2010**

	Enterprise deaths						Persons engaged in enterprise deaths					
	2006	2007	2008	2009	2010	Total	2006	2007	2008	2009	2010	Total
Industry	565	829	1,021	1,339	1,085	<b>4,839</b>	990	1,637	2,072	2,418	1,316	<b>8,433</b>
Construction	4,076	6,477	8,923	7,956	5,162	<b>32,594</b>	5,525	10,965	13,215	9,730	6,207	<b>45,642</b>
Distribution	2,038	2,714	2,948	4,217	3,382	<b>15,299</b>	3,098	4,319	5,596	6,971	5,050	<b>25,034</b>
Services	5,058	6,864	7,326	10,450	8,290	<b>37,988</b>	7,196	9,541	10,808	15,078	11,059	<b>53,682</b>
Financial & Insurance	202	379	383	549	389	<b>1,902</b>	164	234	452	537	1,259	<b>2,646</b>
Total Business Economy	11,939	17,263	20,601	24,511	18,308	<b>92,622</b>	16,973	26,695	32,143	34,733	24,891	<b>135,435</b>

Source: CSO Business Demography

**Table 4.3 Number of enterprise survivals and associated persons engaged, 2006 to 2011**

	Enterprise survivals						Persons engaged in enterprise survivals						
	Year of birth	Survived					Year of birth	Survived					
		1 year	2 years	3 years	4 years	5 years		1 year	2 years	3 years	4 years	5 years	
<b>2006</b>	16,696	14,993	13,524	12,152	10,093	8,596	<b>2006</b>	17,851	32,384	32,006	26,774	22,991	21,583
<b>2007</b>	13,461	11,579	10,186	8,529	7,124		<b>2007</b>	14,922	22,321	19,456	17,617	18,060	
<b>2008</b>	11,954	10,252	9,133	7,295			<b>2008</b>	13,594	19,133	18,378	20,668		
<b>2009</b>	13,810	11,336	9,799				<b>2009</b>	12,397	20,295	21,217			
<b>2010</b>	11,237	9,387					<b>2010</b>	10,475	22,153				
<b>2011</b>	11,847						<b>2011</b>	10,700					

Source: CSO Business Demography



## Business performance in Ireland

The performance of business in Ireland in 2011 was examined using a number of performance indicators. The structural business surveys<sup>1</sup> were used to compile the data.

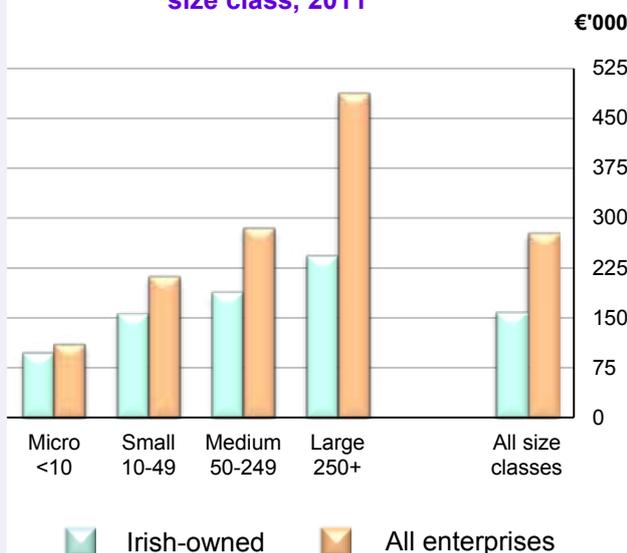
Labour productivity, personnel costs as a percentage of GVA and enterprise profitability were analysed. The contribution of the 50 largest enterprises, in terms of GVA, was also examined.

### Business productivity in Ireland

Turnover per person engaged and GVA per person engaged are simple measures of labour productivity<sup>2</sup>. These indicators are presented for each of the employment size classes<sup>3</sup> as well as for all enterprises combined.

In 2011, turnover per person engaged for all enterprises in Ireland was over €278,000 while the equivalent figure for indigenous Irish-owned enterprises (i.e. excludes foreign multinationals) was over €160,000. When these indicators were examined by employment size class, there was a strong upward trend from the small enterprises to the medium and large enterprises. See Figure 5.1.

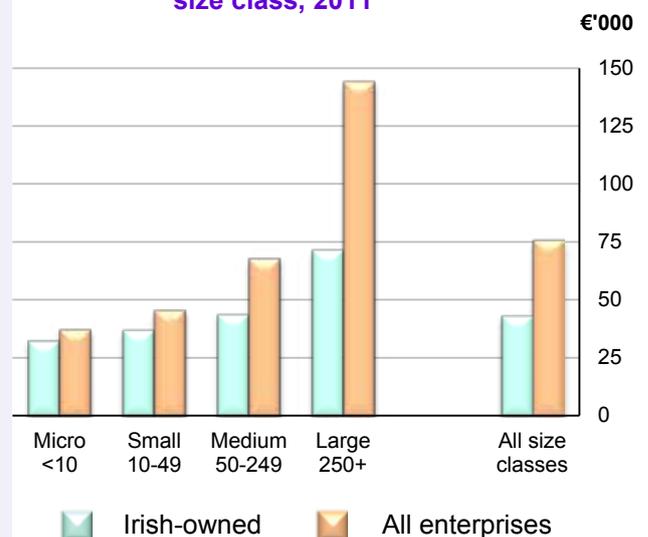
Figure 5.1 Turnover per person engaged by size class, 2011



GVA per person engaged was over €76,000 for all enterprises and over €43,000 for indigenous Irish-owned enterprises.

GVA per person engaged for all micro enterprises was almost €38,000 while for all large enterprises the figure was almost €145,000. When the foreign multinationals were excluded, the productivity measure for each of the size classes was reduced considerably. This was particularly evident for large indigenous enterprises where GVA per person engaged at almost €72,000 was approximately half the figure for all large enterprises. See Figure 5.2.

Figure 5.2 GVA per person engaged by size class, 2011



In 2011, each broad sector had a higher turnover per person engaged in large enterprises than small and medium enterprises (SMEs), with the exception of the Distribution sector. This trend was most evident in Industry where large enterprises had a turnover per person engaged of over €881,000 compared to over €343,000 for SMEs. Although

<sup>1</sup> The surveys used were Census of Industrial Production (CIP), Building and Construction Inquiry (BCI) and Annual Services Inquiry (ASI). Financial & Insurance activities were excluded from this analysis.

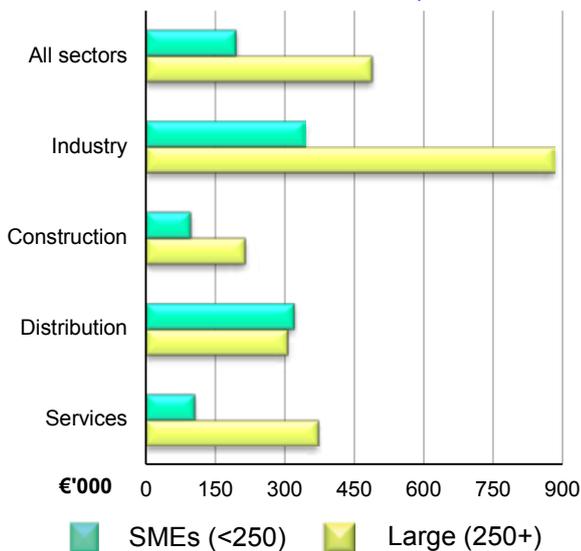
<sup>2</sup> These measures are not adjusted for full-time equivalents.

<sup>3</sup> See Appendix 3 for size class definitions.

the gap between the two size classes was less in the other broad sectors, there was still a sizeable difference for both Services and Construction.

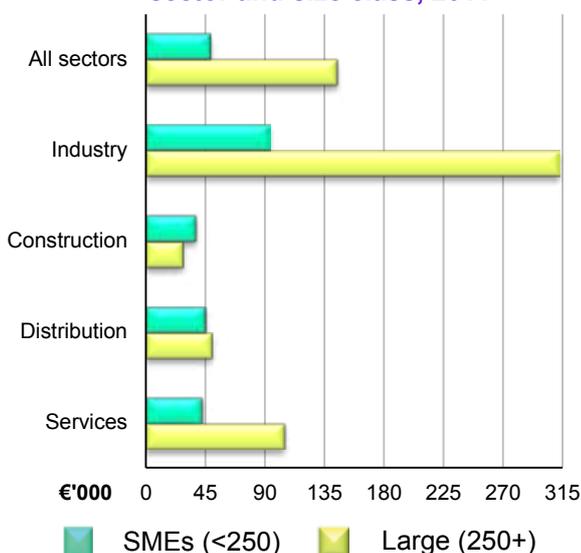
Turnover per person engaged across both size classes was most similar in the Distribution sector where SMEs reported a value of over €319,000 while the corresponding figure for large enterprises was just under €307,000. See Figure 5.3.

**Figure 5.3 Turnover per person engaged by sector and size class, 2011**



In relation to GVA per person engaged, Industry again had the largest gap between the two size classes, where large enterprises had a GVA per person engaged of over €312,000 while the corresponding figure for SMEs was just under €94,000. See Figure 5.4.

**Figure 5.4 GVA per person engaged by sector and size class, 2011**



## Apportioning GVA between personnel costs and gross operating surplus

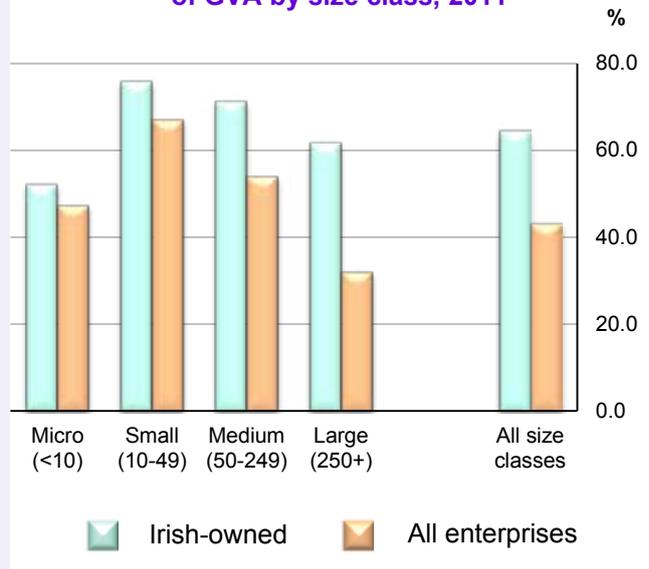
Personnel costs include wages and taxes as well as both employee and employer social security contributions. When combined with gross operating surplus, it is possible to calculate gross value added<sup>4</sup>. The proportion of GVA that is paid by enterprises in the form of personnel costs is presented here. For enterprises, the lower the percentage paid in personnel costs, the more they are able to extract in the form of gross operating surplus or profit.

In 2011, 43.2% of GVA was paid in personnel costs across all enterprises<sup>5</sup>. Indigenous Irish-owned enterprises (i.e. excludes foreign multinationals) paid 64.5% of GVA in personnel costs.

Small enterprises with between 10 and 49 persons engaged showed particularly high proportions of GVA paid in personnel costs. Within this category, all enterprises paid 67.1% in personnel costs while indigenous enterprises paid 75.9%.

Foreign multinationals had a significant effect on the shares reported by large enterprises. All large enterprises paid 32.1% of GVA in personnel costs while large indigenous enterprises paid 61.8%. See Figure 5.5.

**Figure 5.5 Personnel costs as a percentage of GVA by size class, 2011**



When the sectoral breakdown is examined, it can be seen that industrial enterprises paid the lowest proportions of GVA in personnel costs across all sectors. This is the case for both SMEs and large enterprises. In particular, large industrial enterprises only paid about one fifth of GVA in personnel

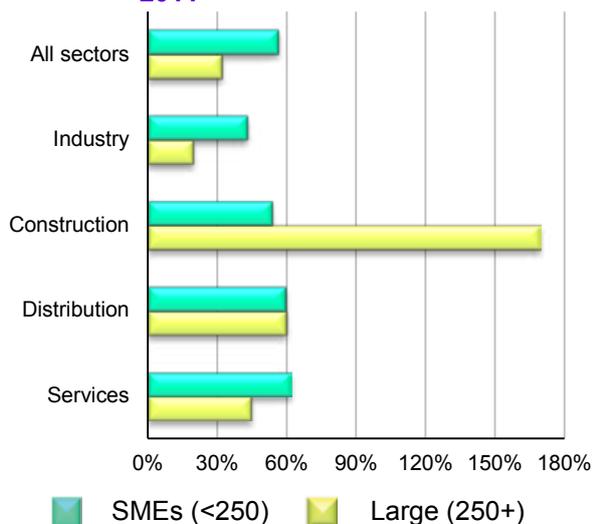
<sup>4</sup> See Appendix 2 for variable definitions.

<sup>5</sup> This percentage was marginally higher than the percentage quoted in Table 2.1 as Financial & Insurance activities was excluded from Figure 5.5.

costs with the remainder being recorded as gross operating surplus.

It should be noted that there are very few large construction enterprises. Therefore, the GVA and personnel costs recorded by this category can be somewhat volatile. A figure of greater than 100% in this case implies personnel costs were greater than GVA which means that gross operating surplus or profit was negative for this category. See Figure 5.6.

**Figure 5.6 Personnel costs as a percentage of GVA by sector and size class, 2011**



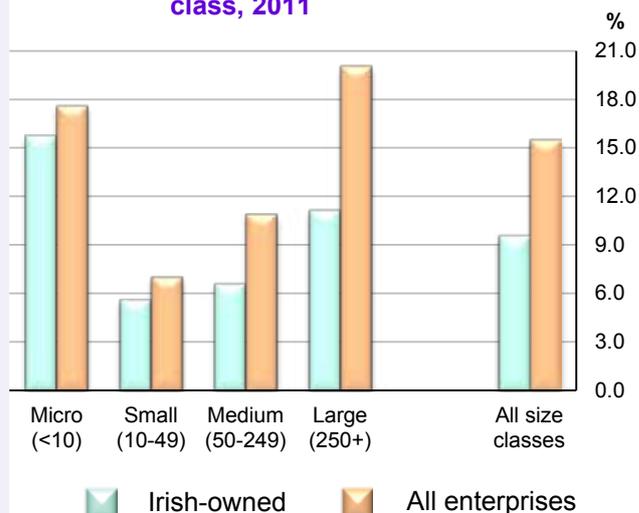
### Business profitability in Ireland

Gross operating surplus is the balance available to an enterprise which allows it to provide a return to shareholders, to pay taxes and to finance all or part of its investment. Gross operating surplus as a percentage of turnover is a measure of profitability for an enterprise and is presented here for each of the detailed size classes. The higher the percentage the more turnover or sales an enterprise is able to translate into gross operating surplus or profit.

For all enterprises in the business economy, 15.5% of turnover was reported as operating surplus. This figure was reduced significantly to 9.6% when the foreign multinationals were removed from the analysis.

All large enterprises recorded 20.1% of turnover as gross operating surplus while large indigenous enterprises recorded a percentage of almost half that figure at 11.2%. See Figure 5.7.

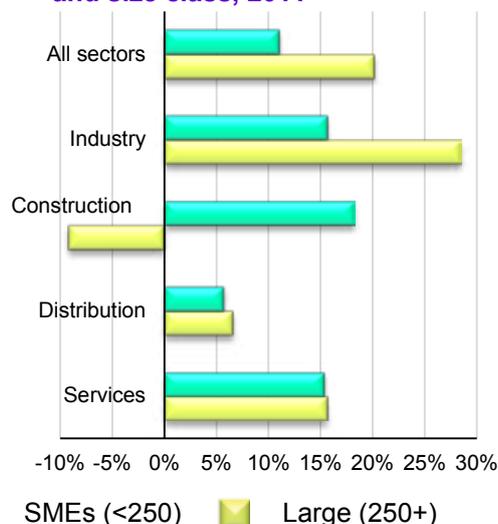
**Figure 5.7 Gross operating surplus as a percentage of turnover by size class, 2011**



The Distribution sector recorded the lowest levels of gross operating surplus as a percentage of turnover. This profitability measure was 5.7% for SMEs compared to 6.6% for large enterprises. In the Services sector, gross operating surplus as a percentage of turnover for SMEs and large enterprises were very similar at about 15.5%.

However, in industry, large enterprises recorded a profitability figure of 28.4% while SMEs reported a figure of 15.6%. Therefore, the gap in the profitability measure for SMEs and large enterprises evident in the total business economy was driven by industrial enterprises. See Figure 5.8.

**Figure 5.8 Gross operating surplus as a percentage of turnover by sector and size class, 2011**



## Contribution of 50 largest enterprises

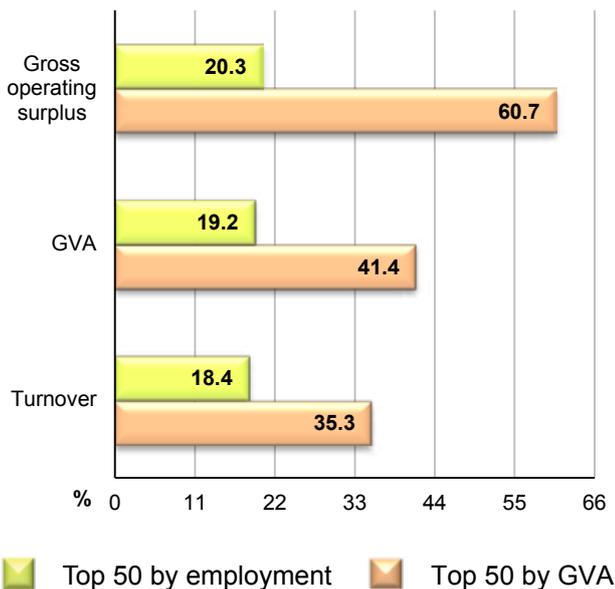
The fifty largest enterprises in Figure 5.9 were chosen firstly based on the size of GVA generated and secondly based on employment size.

The fifty largest enterprises in the business economy by GVA accounted for 35.3% of total turnover, 41.4% of total GVA and 60.7% of total gross operating surplus.

In contrast, the fifty largest enterprises in the business economy by employment accounted for 18.4% of total turnover, 19.2% of total GVA and 20.3% of total gross operating surplus. See *Figure 5.9 and Table 5.1*.

Industry stands out in terms of its reliance on a small number of high value added enterprises. The 50 largest enterprises in Industry by GVA accounted for the majority of all three main indicators within Industry at 61.0% of total turnover, 70.6% of total GVA and 83.2% of total gross operating surplus. See *Table 5.1*.

**Figure 5.9 Contribution of 50 largest enterprises by GVA and employment, total business economy, 2011**



**Table 5.1 Contribution of 50 largest enterprises<sup>1</sup> by sector, 2011**

€m

	Industry	Construction	Distribution	Services <sup>2</sup>	Total Business Economy <sup>2</sup>
<b>Business Economy</b>					
Turnover	112,300	9,316	102,965	101,547	326,128
Gross value added	36,957	3,363	15,157	33,833	89,310
Gross operating surplus	27,489	1,394	6,123	15,686	50,691
					<b>%</b>
<b>Contribution of Top 50 Enterprises</b>					
Turnover	61.0%	21.1%	30.7%	53.1%	35.3%
Gross value added	70.6%	32.5%	38.3%	45.7%	41.4%
Gross operating surplus	83.2%	53.6%	61.3%	66.7%	60.7%

**Source:** CSO structural business surveys

<sup>1</sup>Based on GVA within sector.

<sup>2</sup>Excludes Financial & Insurance activities.



Eurostat<sup>1</sup>



This chapter outlines some of the key statistics from the structural business surveys around the business costs faced by enterprises in Ireland. Personnel costs have been analysed already in other chapters<sup>2</sup>, however, this chapter takes a closer look at the elements that make up personnel costs namely wages & salaries and employers' social security costs. The chapter also examines total purchases in the business economy and how purchases are broken down by sector and size class.

### Personnel costs

Personnel costs are defined as the total remuneration, in cash or in kind, payable by an employer to an employee. Personnel costs include taxes and employees' social security contributions retained by the unit as well as the employer's compulsory and voluntary social contributions.

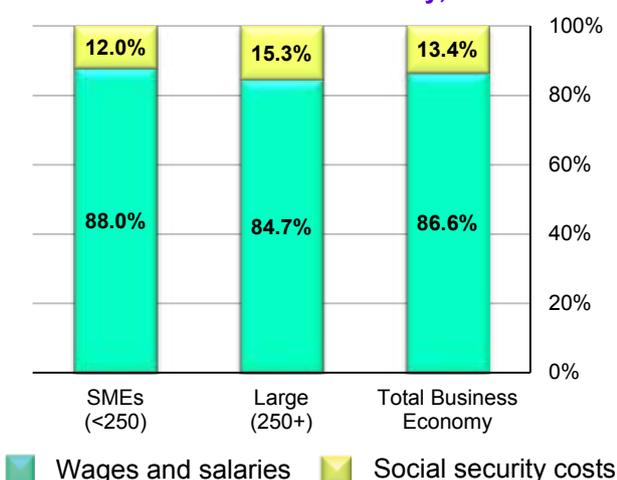
Personnel costs are made up of:

- ◆ wages & salaries
- ◆ employers' social security costs

Social security costs for the employer include employer's contributions to the PRSI scheme, superannuation funds, PRSA's and other pension schemes. Also included are insurance premiums, employer's liability insurance and private health premiums paid on behalf of employees<sup>3</sup>.

In the total business economy in 2011, over €38.6 billion was paid in personnel costs. Almost €5.2 billion or 13.4% of this was in the form of employers' social security payments. The percentage was higher for large enterprises at 15.3% compared to small and medium enterprises (SMEs) at 12.0%. See Figure 6.1 and Table 6.1.

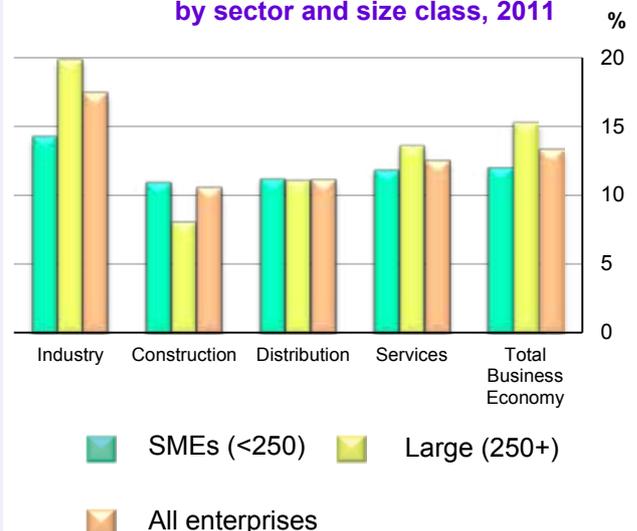
**Figure 6.1 Breakdown of personnel costs for the business economy, 2011**



Personnel costs can also be analysed by broad sector and size class. Industry paid the highest percentage of personnel costs in the form of employers' social security payments at 17.5%. Large industrial enterprises paid over €5.4 billion in personnel costs in 2011 and almost €1.1 billion or 19.9% of this was employers' social security payments. Compared to large enterprises, SMEs in Industry paid a lower percentage at 14.3%. See Figure 6.2 and Table 6.1.

Enterprises in the Construction sector paid the lowest proportion of personnel costs in the form of employers' social security at 10.6%.

**Figure 6.2 Social security costs as a percentage of personnel costs by sector and size class, 2011**



It is possible to compare the breakdown of personnel costs across the EU27 using data from Eurostat<sup>1</sup>. The reference year used is 2010, as data for 2011 is incomplete for some large countries. Ireland paid a relatively low rate of employers' social security costs at 14.6% of personnel costs in 2010 compared to the average rate among all EU27 countries of 21.5%. Only four countries, including the UK at 12.9%, paid a rate lower than

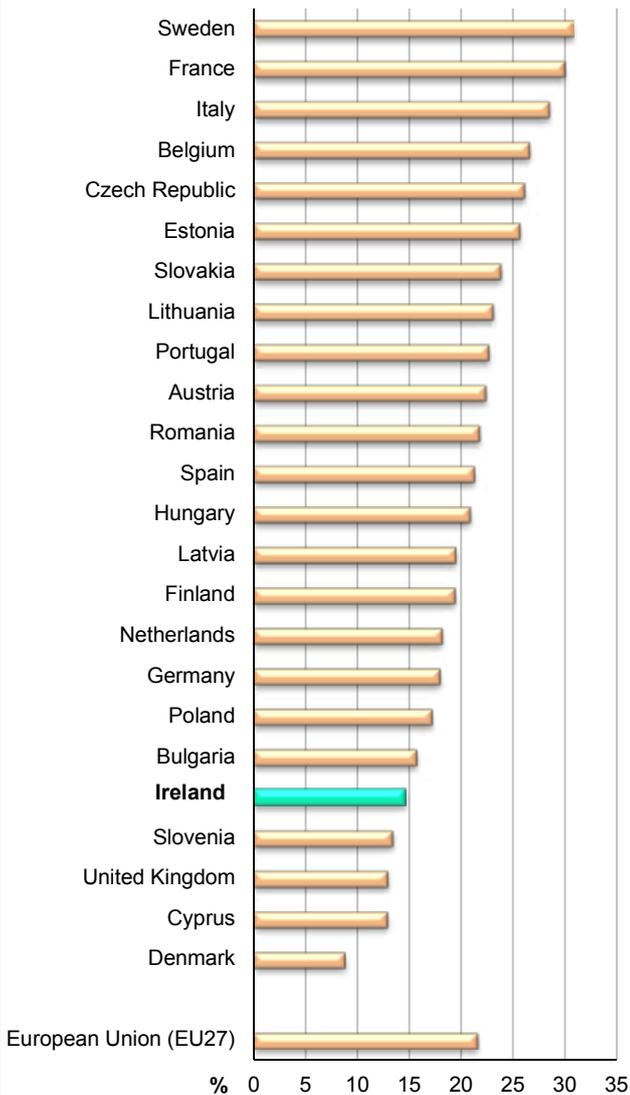
<sup>1</sup> [www.cso.ie/shorturl.aspx/198](http://www.cso.ie/shorturl.aspx/198)

<sup>2</sup> Chapter 2 and Chapter 5.

<sup>3</sup> See Appendix 2 for full definition.

Ireland. The countries that paid the highest rates of employers' social security costs included Sweden at 30.7%, France at 29.9% and Italy at 28.4%. See *Figure 6.3 and Table 6.2*.

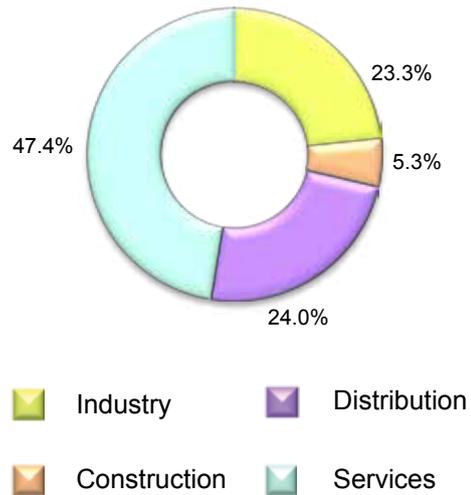
**Figure 6.3 Social security costs as a percentage of personnel costs in the business economy, EU27 countries, 2010**



## Wages & salaries

There was €33.5 billion paid in wages & salaries in the total business economy in Ireland in 2011. Almost half of this figure, at 47.4%, was paid in the Services sector while Industry and Distribution each accounted for just under a quarter. The Construction sector accounted for 5.3% of wages & salaries in the total business economy. See *Figure 6.4 and Table 6.1*.

**Figure 6.4 Wages & salaries in the total business economy by sector, 2011**

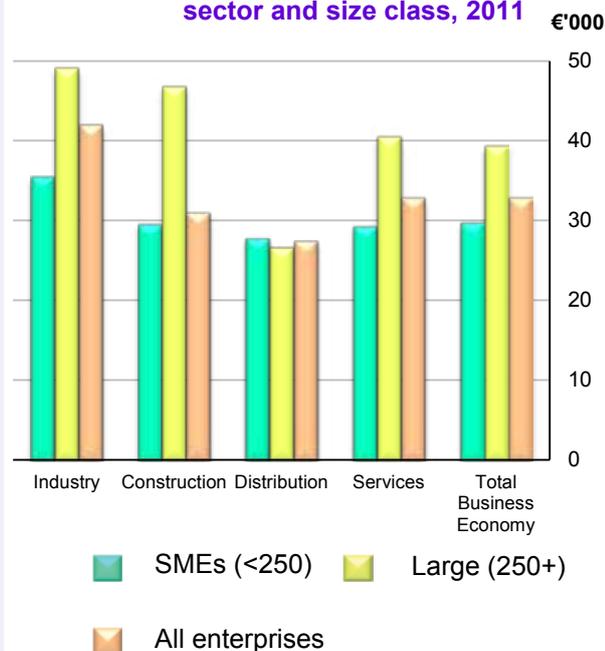


It is possible to compare the average wages per employee by sector and size class<sup>4</sup>. In the total business economy, the average wages paid to employees was just over €32,900. There was a significant difference between the average wages paid in SMEs at almost €29,800 compared to large enterprises at over €39,400. See *Figure 6.5 and Table 6.1*.

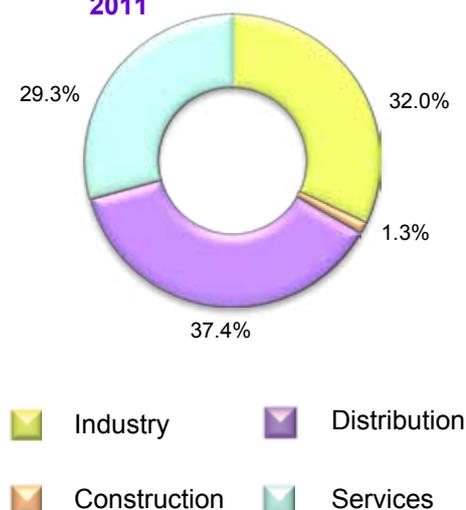
Industry had the highest average wages in the business economy at over €42,000. Employees in SMEs were paid almost €35,600 on average while employees in large enterprises were paid over €49,000. The lowest average wages in the business economy were in the Distribution sector at €27,500, with employees in SMEs and large enterprises paid similar amounts.

<sup>4</sup> The number of employees in this calculation was sourced from the business surveys whereas the data for the number of employees in Table 2.1 were taken from Business Demography statistics which come from administrative sources.

**Figure 6.5 Wages per employee by sector and size class, 2011**



**Figure 6.6 Total purchases by enterprises in the business economy by sector, 2011**



### Purchases of goods and services

Purchases of goods and services include the value of all goods and services purchased during the accounting period for resale or consumption in the production process (excluding capital goods). The goods and services may be resold with or without further transformation, completely used up in the production process or be stocked or retained as stock.

Services purchases during the reference period are included regardless of whether they are industrial or non-industrial services. Industrial services are, for example, repairs and maintenance, installation work and technical studies. Non-industrial services are, for example, legal and accountancy fees, patents and license fees, insurance premiums, transport services for goods and personnel and advertising costs<sup>5</sup>.

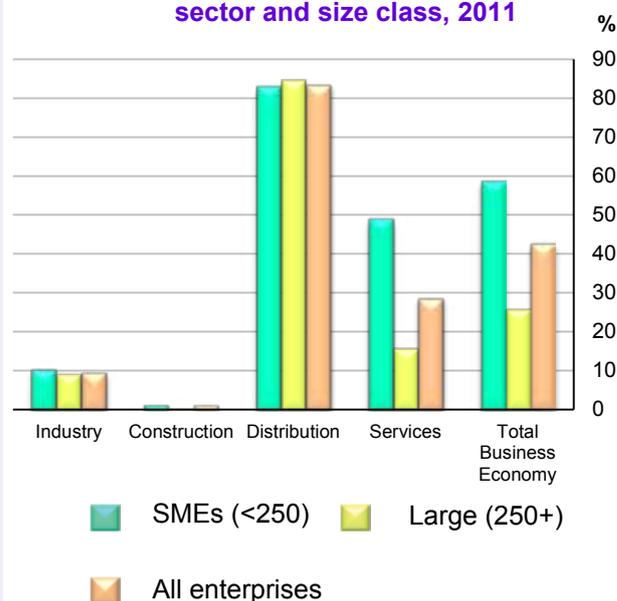
Total purchases in the business economy in 2011 were €234.3 billion. Distribution was the sector with the largest share of purchases at 37.4%, closely followed by Industry and Services with 32% and 29.3% per cent respectively. Construction accounted for only 1.3% of total purchases. See Figure 6.6 and Table 6.3.

Purchases of goods or services that were resold in the same condition that they were received amounted to €100.3 billion in 2011 or 42.8% of total purchases in the business economy. These types of purchases were more prevalent in SMEs at 58.8% compared to large enterprises at 26.0%.

The sector with the highest proportion of purchases for resale was the Distribution sector at 83.5% of total purchases. This proportion was similar for both SMEs and large enterprises in the Distribution sector.

The proportion of purchases for resale in the Services sector was 28.7% of total purchases. There was a significant difference in the percentage for SMEs at 49.1% compared to large enterprises at 15.9%. See Figure 6.7 and Table 6.3.

**Figure 6.7 Purchases for resale as a percentage of total purchases by sector and size class, 2011**



<sup>5</sup> See Appendix 2 for full definition.

**Table 6.1 Breakdown of personnel costs in the total business economy<sup>1</sup> by sector and size class, 2011**

	Personnel costs	Wages & salaries	Social security costs	Social security costs as a % of personnel costs	Wages & salaries per employee
	€m	€m	€m	%	€uro
<b>Industry</b>	<b>9,468</b>	<b>7,812</b>	<b>1,656</b>	<b>17.5</b>	<b>42,025</b>
SMEs (<250)	4,056	3,477	580	14.3	35,560
Large (250+)	5,412	4,336	1,077	19.9	49,211
<b>Construction</b>	<b>1,969</b>	<b>1,760</b>	<b>209</b>	<b>10.6</b>	<b>31,049</b>
SMEs (<250)	1,723	1,534	189	11.0	29,590
Large (250+)	246	227	20	8.1	46,862
<b>Distribution</b>	<b>9,034</b>	<b>8,023</b>	<b>1,011</b>	<b>11.2</b>	<b>27,502</b>
SMEs (<250)	6,480	5,754	727	11.2	27,826
Large (250+)	2,554	2,270	284	11.1	26,723
<b>Services</b>	<b>18,147</b>	<b>15,865</b>	<b>2,282</b>	<b>12.6</b>	<b>32,925</b>
SMEs (<250)	10,873	9,585	1,289	11.9	29,302
Large (250+)	7,273	6,280	993	13.7	40,586
<b>Total Business Economy</b>	<b>38,619</b>	<b>33,461</b>	<b>5,158</b>	<b>13.4</b>	<b>32,929</b>
SMEs (<250)	23,133	20,349	2,784	12.0	29,771
Large (250+)	15,486	13,112	2,374	15.3	39,418

Source: CSO structural business surveys

<sup>1</sup> The total business economy includes NACE Rev. 2 Sections B to N (excluding K) and R92, R93, S95 and S96.

**Table 6.2 Breakdown of personnel costs in the total business economy<sup>1</sup>, EU27 countries, 2010**

	Personnel costs	Wages & salaries	Social security costs	Social security costs as a % of personnel costs
	€m	€m	€m	%
<b>European Union (27 countries)</b>	3,515,291	2,753,223	756,658	21.5
<b>Belgium</b>	102,145	75,034	27,111	26.5
<b>Bulgaria</b>	7,694	6,487	1,207	15.7
<b>Czech Republic</b>	41,609	30,774	10,834	26.0
<b>Denmark</b>	69,249	63,127	6,122	8.8
<b>Germany</b>	794,395	652,050	142,345	17.9
<b>Estonia</b>	4,074	3,032	1,043	25.6
<b>Ireland</b>	37,455	31,983	5,472	14.6
<b>Greece</b>	:	:	:	
<b>Spain</b>	293,269	231,064	62,241	21.2
<b>France</b>	626,909	439,426	187,484	29.9
<b>Italy</b>	361,270	258,568	102,702	28.4
<b>Cyprus</b>	5,244	4,568	676	12.9
<b>Latvia</b>	3,644	2,935	709	19.5
<b>Lithuania</b>	5,404	4,160	1,244	23.0
<b>Luxembourg</b>	:	:	:	
<b>Hungary</b>	23,355	18,496	4,860	20.8
<b>Malta</b>	:	:	:	
<b>Netherlands</b>	166,312	136,149	30,163	18.1
<b>Austria</b>	91,598	71,158	20,440	22.3
<b>Poland</b>	73,606	60,983	12,623	17.1
<b>Portugal</b>	45,339	35,079	10,259	22.6
<b>Romania</b>	21,330	16,696	4,634	21.7
<b>Slovenia</b>	11,086	9,599	1,487	13.4
<b>Slovakia</b>	14,552	11,091	3,460	23.8
<b>Finland</b>	53,099	42,817	10,282	19.4
<b>Sweden</b>	117,736	81,541	36,195	30.7
<b>United Kingdom</b>	488,290	425,103	63,187	12.9

Source: Eurostat/CSO structural business surveys

<sup>1</sup> The total business economy covers NACE Rev. 2 Sections B to N (excluding K). Note that R92, R93, S95 and S96 are excluded from the sectoral definition of the business economy here as these sectors are not available from Eurostat.

**Table 6.3 Purchases in the total business economy<sup>1</sup> by sector and size class, 2011**

	Total purchases	Purchases for resale	Purchases for resale as a % of total purchases
	€m	€m	%
<b>Industry</b>	<b>75,008</b>	<b>7,300</b>	<b>9.7</b>
SMEs (<250)	24,779	2,604	10.5
Large (250+)	50,229	4,696	9.3
<b>Construction</b>	<b>3,020</b>	<b>38</b>	<b>1.3</b>
SMEs (<250)	2,714	38	1.4
Large (250+)	306	1	0.3
<b>Distribution</b>	<b>87,689</b>	<b>73,254</b>	<b>83.5</b>
SMEs (<250)	66,067	54,927	83.1
Large (250+)	21,622	18,327	84.8
<b>Services</b>	<b>68,605</b>	<b>19,691</b>	<b>28.7</b>
SMEs (<250)	26,419	12,970	49.1
Large (250+)	42,185	6,720	15.9
<b>Total Business Economy</b>	<b>234,322</b>	<b>100,283</b>	<b>42.8</b>
SMEs (<250)	119,979	70,539	58.8
Large (250+)	114,343	29,743	26.0

Source: CSO structural business surveys

<sup>1</sup> The total business economy includes NACE Rev. 2 Sections B to N (excluding K) and R92, R93, S95 and S96.

## Detailed business sectors

The broad business sectors that were presented in previous chapters have been broken into fifteen detailed sectors, based on the NACE Rev. 2 sectoral classification. See Appendix 3.

### Business Demography

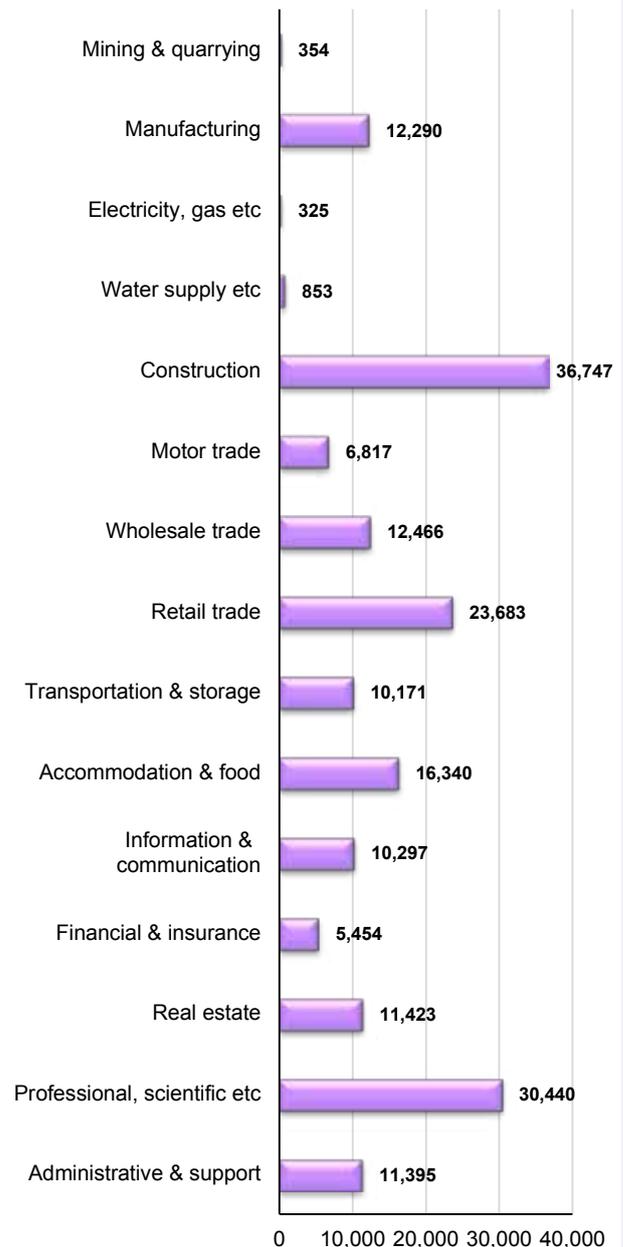
#### Number of active enterprises

There were over 189,000 active enterprises in 2011. Of the fifteen sectors, the largest sector was Construction with almost 37,000 enterprises. Construction is a sector that is characterised by many small enterprises. This was followed by the Professional, Scientific and Technical sector with over 30,000 enterprises.

The sectors with the smallest number of active enterprises were Electricity, Gas, Steam and Air Conditioning Supply with 325 enterprises, Mining and Quarrying with 354 enterprises and Water supply, Sewerage, Waste Management and Remediation Activities with 853 enterprises.

The Distribution sector (Section G), which had just under 43,000 enterprises has been split into three sub sectors, namely Motor (G45), Wholesale (G46) and Retail (G47). The Retail Trade sector with almost 24,000 enterprises was nearly double the size of the Wholesale Trade sector which had over 12,000 enterprises, while the Motor Trade sector was the smallest part of this group with approximately 7,000 enterprises. See Figure 7.1.

Figure 7.1 Number of enterprises by detailed sector, 2011



Source: CSO Business Demography

See Table 7.1 for full description of detailed sectors

## Number of persons engaged

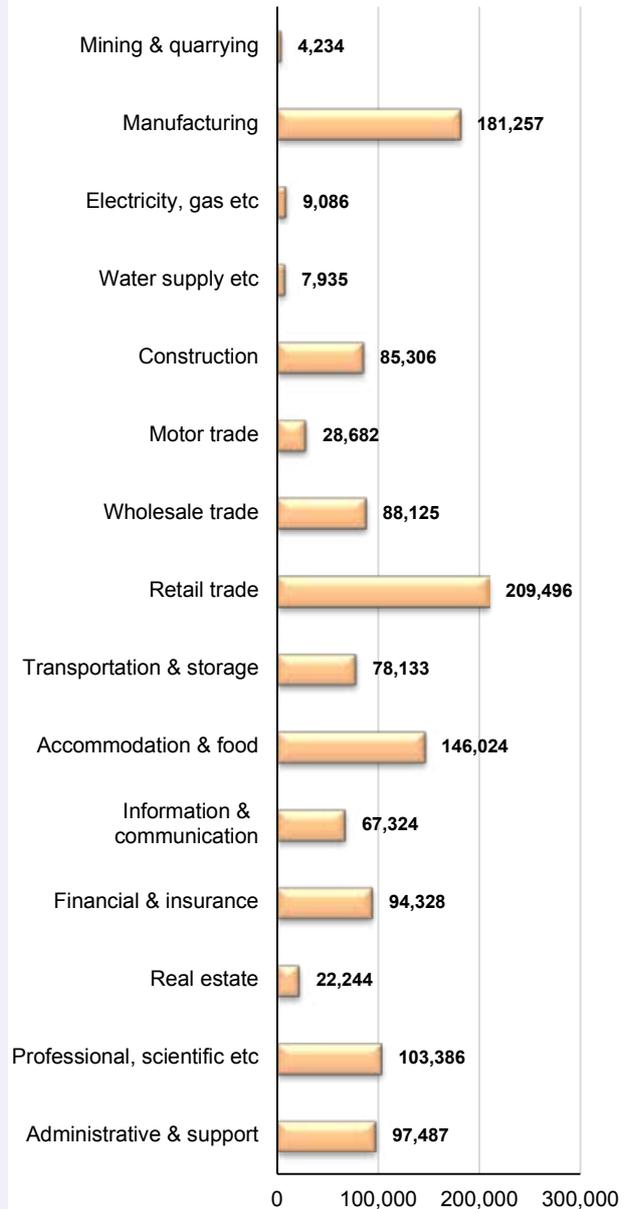
The total number of persons engaged across all business sectors was over 1.2 million. The largest employer was the Retail Trade sector with over 209,000 persons engaged. This was followed by Manufacturing with over 181,000 persons engaged, Accommodation and Food Service Activities with over 146,000 and Professional, Scientific and Technical Activities with nearly 103,000.

The Industry sector which employs almost 203,000 encompasses:

- ◆ Mining and Quarrying
- ◆ Manufacturing
- ◆ Electricity, Gas, Steam and Air Conditioning Supply
- ◆ Water supply: Sewerage, Waste Management and Remediation Activities.

Industry is dominated by Manufacturing which employs 90% of the persons engaged in that sector. See *Figure 7.2*.

**Figure 7.2 Number of persons engaged by detailed sector, 2011**



Source: CSO Business Demography

See Table 7.1 for full description of detailed sectors

## Business Operations

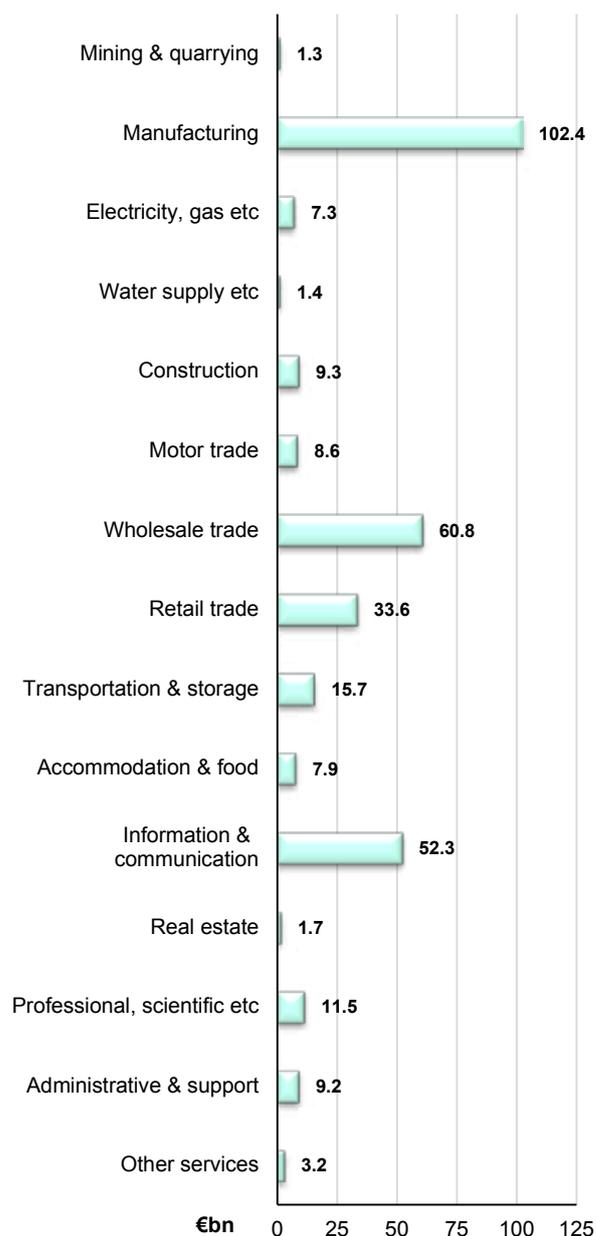
Structural business surveys are used to analyse the financial data for the detailed sectors. Turnover and GVA are presented in absolute terms. GVA per person engaged gives an indication of the productivity of the detailed sectors while the profitability of the sectors is also analysed using gross operating surplus as a percentage of turnover.

The Financial and Insurance sector is excluded from this section while the Other Services Activities sector (NACE Rev. 2 - R92, R93, S95 and S96) is included.

### Turnover in the detailed sectors

The Manufacturing sector dominated turnover within the business economy with €102.4 billion in sales in 2011 accounting for 31.4% of total turnover. This was followed by Wholesale Trade at €60.8 billion. The Information and Communication sector, which includes publishing activities (e.g. software publishing), broadcasting, telecommunications, computer programming and consultancy and information service activities had a turnover of €52.3 billion while the turnover for Retail Trade was €33.6 billion. These four sectors account for three quarters of all sales in the Irish business economy. See Figure 7.3.

Figure 7.3 Turnover by detailed sector, 2011



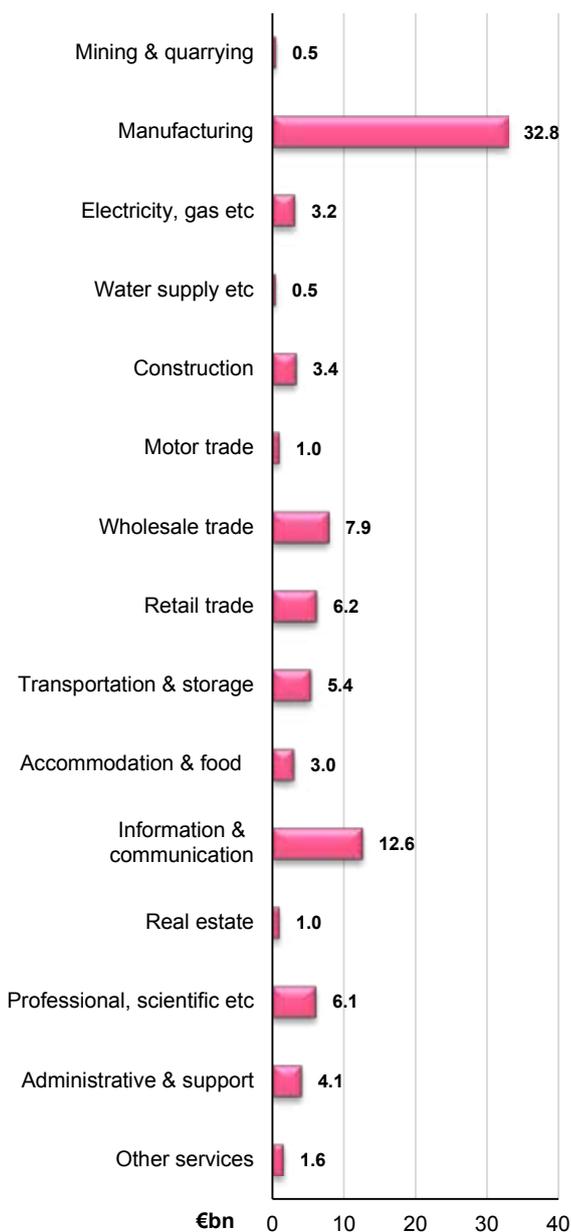
Source: CSO Business Demography

See Table 7.1 for full description of detailed sectors

## GVA in the detailed sectors

Manufacturing again led the way in terms of GVA with €32.8 billion or 36.8% of total GVA in the Irish business economy. This was followed by Information and Communication with just under €12.6 billion while Wholesale Trade recorded GVA worth €7.9 billion. The Retail Trade and Professional, Scientific and Technical Activities sectors reported value added of €6.2 billion and €6.1 billion respectively. See Figure 7.4.

Figure 7.4 GVA by detailed sector, 2011



Source: CSO Business Demography

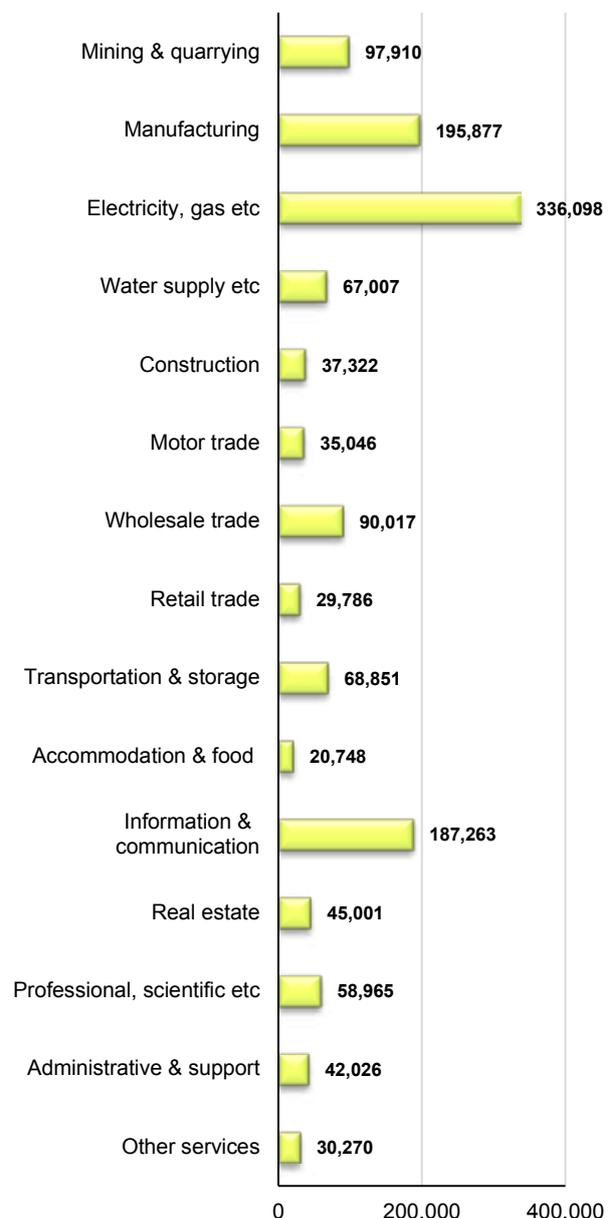
See Table 7.1 for full description of detailed sectors

## Productivity in the detailed sectors

Gross value added (GVA) per person engaged is a simple measure of labour productivity. Electricity, Gas, Steam and Air Conditioning Supply generated the most GVA per person engaged at over €336,000. The next largest figure was recorded by Manufacturing at almost €196,000.

The sector that generated the least GVA per person engaged was Accommodation and Food Service Activities at almost €21,000. Retail Trade and Other Services both recorded a figure of approximately €30,000. Construction and Motor Trade also had low GVA per person engaged at over €37,000 and over €35,000 respectively. See Figure 7.5.

Figure 7.5 GVA per persons engaged by detailed sector, 2011



Source: CSO Business Demography

See Table 7.1 for full description of detailed sectors

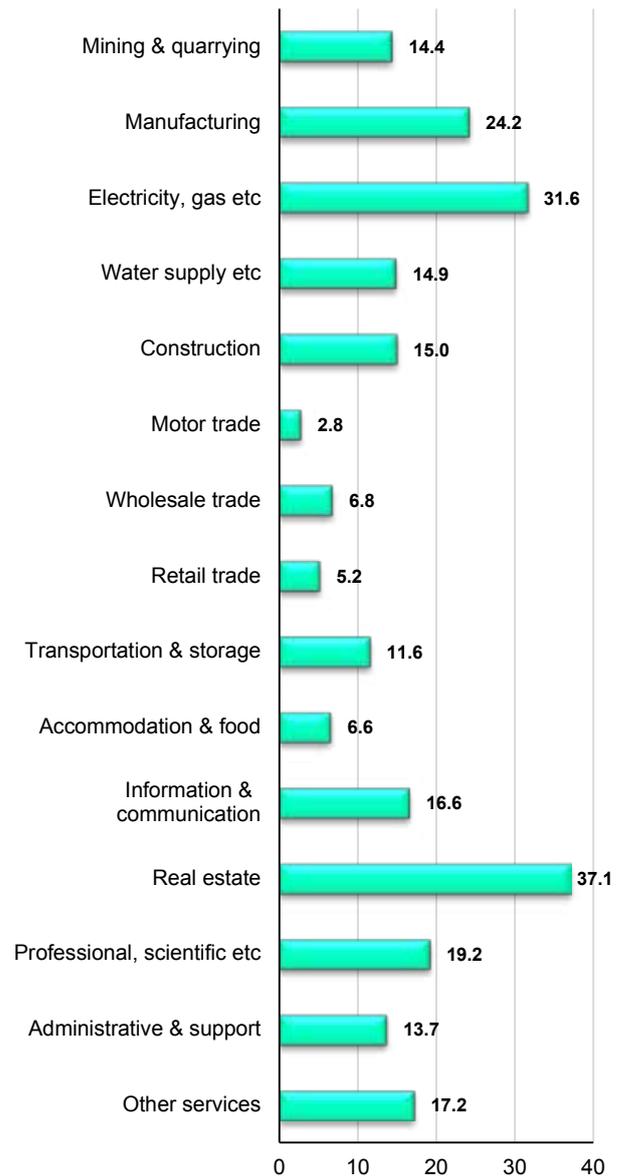
## Profitability in the detailed sectors

Gross operating surplus is the balance available to the enterprise which allows it to provide a return to shareholders, to pay taxes and to finance all or part of its investment. Gross operating surplus as a percentage of turnover is a measure of profitability.

Real Estate Activities was the sector that recorded the highest gross operating surplus as a percentage of turnover at 37.1%. This was followed by Electricity, Gas, Steam and Air Conditioning Supply with 31.6% and Manufacturing with 24.2%.

Motor Trade was the sector that recorded the lowest gross operating surplus as a percentage of turnover at 2.8%. Other sectors that recorded low percentages were Wholesale Trade, Retail Trade and Accommodation and Food Service Activities which recorded gross operating surplus of between 5.0% and 7.0% of turnover. Other sectors recorded percentages around the average for the total business economy which was 15.5%. See Figure 7.6.

**Figure 7.6 Gross operating surplus as a percentage of turnover by detailed sector, 2011**



Source: CSO Business Demography

See Table 7.1 for full description of detailed sectors

**Table 7.1 NACE Rev. 2 detailed sector descriptions**

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B	Mining and quarrying
C	Manufacturing
D	Electricity, gas, steam and air conditioning supply
E	Water supply; sewerage, waste management and remediation activities
F	Construction
G45	Wholesale and retail trade and repair of motor vehicles and motorcycles
G46	Wholesale trade, except of motor vehicles and motorcycles
G47	Retail trade, except of motor vehicles and motorcycles
H	Transportation and storage
I	Accommodation and food service activities
J	Information and communication
K excl. 642	Financial and insurance activities excluding financial holding companies
L	Real estate activities
M	Professional, scientific and technical activities
N	Administrative and support service activities
R92, R93, S95, S96	Other service activities

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## Multinationals: an Irish perspective

**M**ultinationals (MNEs) play an important role in the economies of many developed and developing countries. Increasingly, multinationals create a physical presence in several countries around the world in order to maximise their global earnings.

This chapter presents statistics on the activities of the affiliates of Irish multinationals abroad and the contribution made by the affiliates of foreign multinationals in Ireland. Please note that a special article called “Compiling foreign affiliates statistics (FATS)” was published in “Business in Ireland 2010<sup>1</sup>” which goes into more detail on the methodology behind these statistics. See Tables 8.1 and 8.2 at the end of this chapter for more detail on the data in the graphs.

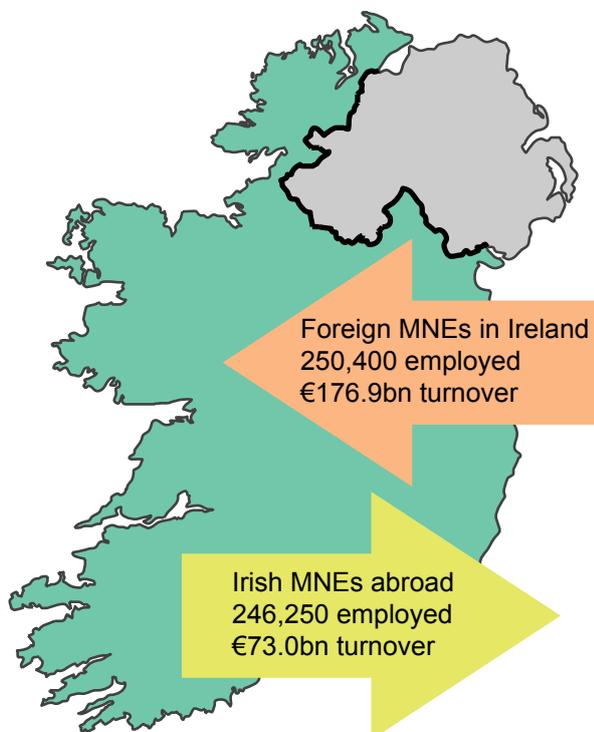
### Key statistics

In 2011, Irish multinationals employed over 246,000 persons in foreign affiliates. These affiliates generated turnover of almost €73.0 billion. By contrast, foreign multinationals employed over 250,000 persons in affiliates in Ireland<sup>2</sup>. These affiliates generated turnover of almost €176.9 billion. See Figure 8.1.

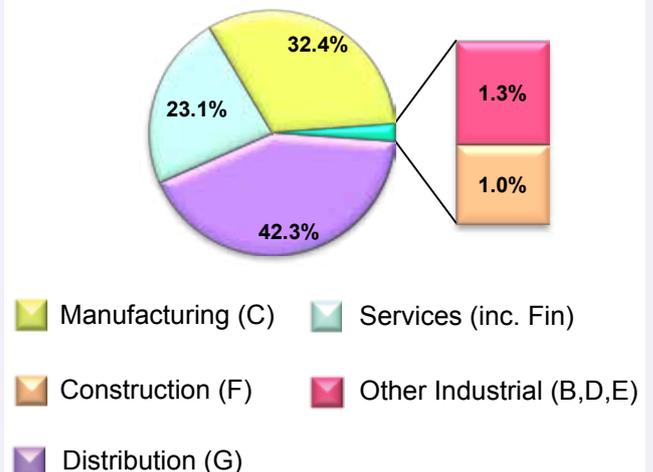
### Irish multinationals abroad

In terms of employment, Distribution was the dominant sector for Irish affiliates abroad with 42.3% of total persons engaged. This was followed by Manufacturing with 32.4% and Services with 23.1%. Employment in Other Industrial and Construction affiliates only accounted for 2.3% of the total employment. See Figure 8.2.

**Figure 8.1 Irish MNEs abroad and foreign MNEs in Ireland, 2011**



**Figure 8.2 Persons engaged in Irish-owned foreign affiliates by sector, 2011**

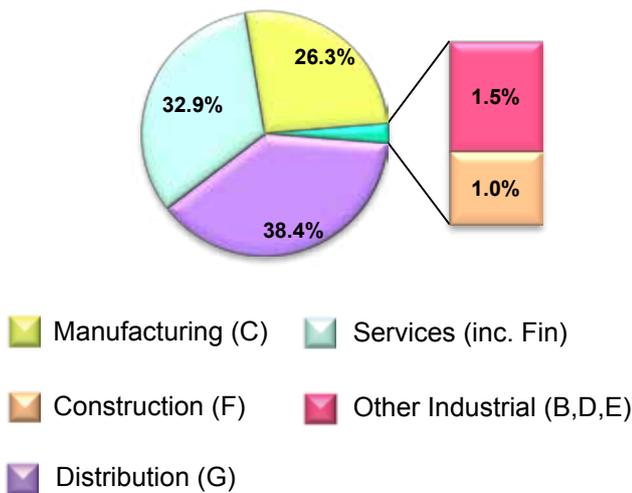


In terms of turnover, Distribution was the most important sector for Irish affiliates abroad accounting for 38.4%. This was followed by Services with about one third of total turnover and Manufacturing with just over a quarter. See Figure 8.3.

<sup>1</sup> For “Business in Ireland 2010” see link <http://www.cso.ie/shorturl.aspx/133>

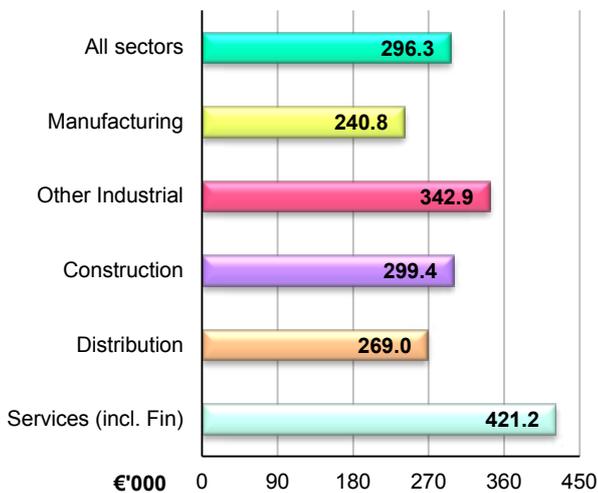
<sup>2</sup> The numbers of persons engaged for foreign multinationals in Ireland are derived from the Structural Business Surveys while the persons engaged in the rest of this publication are taken from CSO Business Demography statistics i.e. administrative sources. The two sources will produce marginally different results.

**Figure 8.3 Turnover in Irish-owned foreign affiliates by sector, 2011**



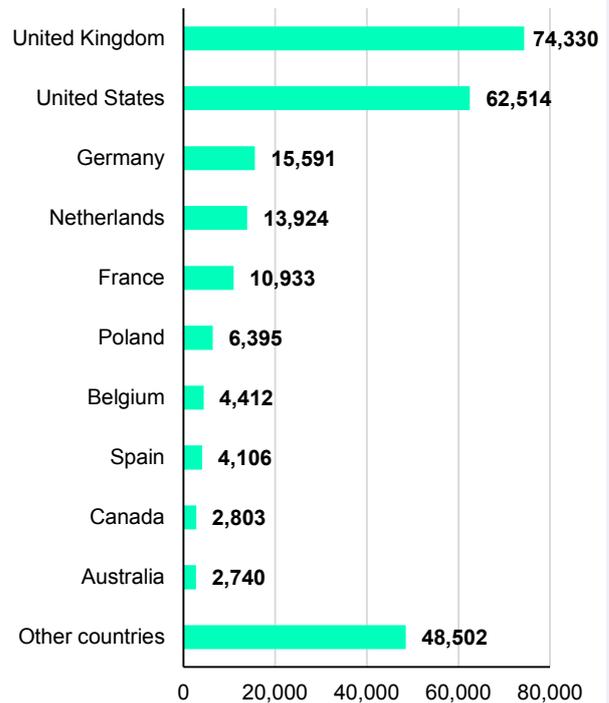
In Irish affiliates abroad, the Services sector recorded the highest turnover per person engaged at over €421,000. The least productive sector was Manufacturing which recorded a figure of just under €241,000. The average turnover across all sectors was over €296,000. See Figure 8.4.

**Figure 8.4 Turnover per person engaged in Irish-owned foreign affiliates by sector, 2011**

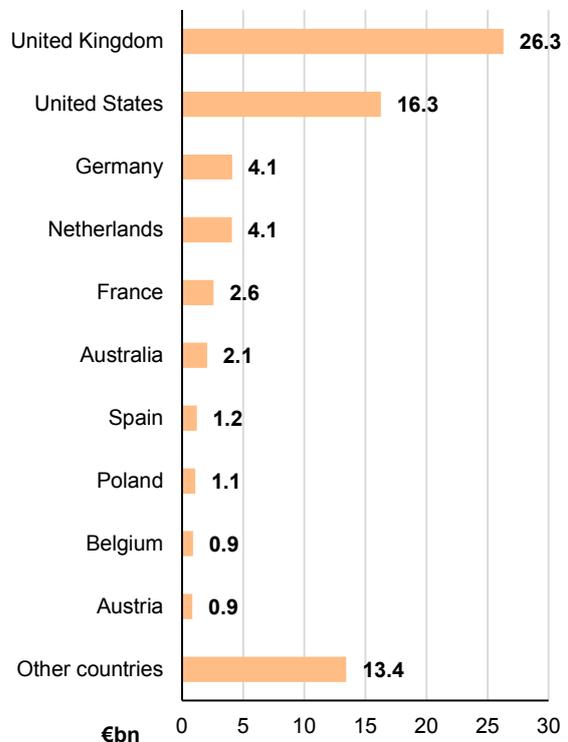


It is possible to analyse Irish-owned foreign affiliates by location. As might be expected, the UK was the most important location for Irish affiliates in 2011 with employment of over 74,000 and turnover of €26.3 billion. This was followed by the US with employment of almost 63,000 and turnover of €16.3 billion. The UK and the US combined accounted for 55.6% of total employment and 58.4% of total turnover in Irish affiliates abroad. Other locations for Irish affiliates with high employment and turnover were Germany, Netherlands and France. See Figures 8.5 and 8.6.

**Figure 8.5 Number of persons engaged in Irish-owned foreign affiliates by location, 2011**



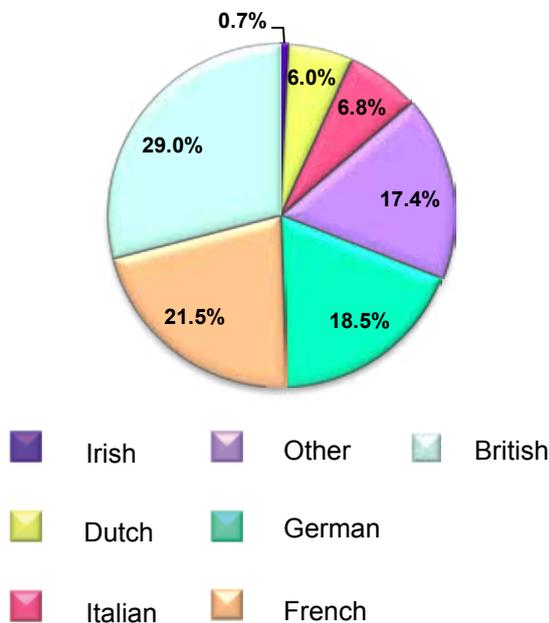
**Figure 8.6 Turnover in Irish-owned foreign affiliates by location, 2011**



## Employment outside the EU by EU multinationals

The number of persons engaged in Irish-owned affiliates outside the EU was almost 99,000 in 2010 (compared to almost 155,000 in foreign affiliates within the EU). In order to put this figure into context, it represents 0.7% of the 13.2 million persons engaged in European-owned affiliates outside the EU. The largest contributors to this employment were British-owned affiliates at 29.0%, French-owned affiliates at 21.5% and German-owned affiliates at 18.5%. Note that 2010 data are used for these European comparisons as 2011 data are not yet available from Eurostat. See Figure 8.7.

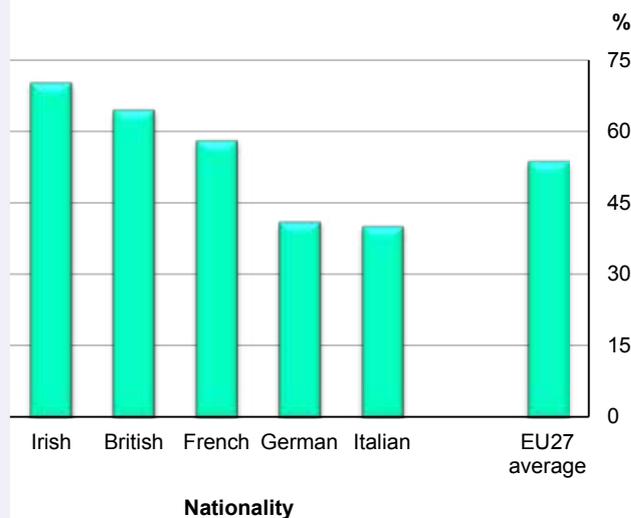
**Figure 8.7 Employment outside the EU by EU multinationals by nationality of ownership, 2010**



Source: Eurostat

In terms of the sectoral breakdown of employment in European-owned affiliates outside the EU, 53.9% of employment was in Services in 2010. By contrast, 70.5% of employment in Irish-owned affiliates outside the EU was in Services. See Figure 8.8.

**Figure 8.8 Employment outside the EU by EU multinationals, percentage in services sector by nationality of ownership, 2010**



Source: Eurostat

## Foreign multinationals in Ireland<sup>3</sup>

It is estimated from the Structural Business Surveys that over 3,300 or 2.1% of the 155,600 enterprises in the business economy in Ireland were foreign-owned in 2011.

Despite the small number of foreign-owned enterprises, they were very significant in terms of employment, turnover and GVA.

Foreign-owned enterprises employed over 250,000 or 21.8% of the 1,151,000 persons engaged in the business economy.

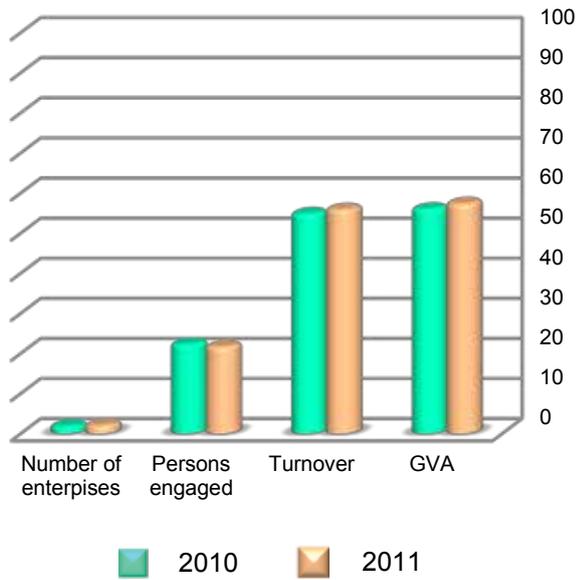
Foreign-owned enterprises generated almost €176.9 billion or 55.9% of the €316.2 billion in total turnover.

Foreign-owned enterprises generated over €48.9 billion or 57.4% of the €85.2 billion in total GVA.

There were only small changes between 2010 and 2011 in the percentage contribution of foreign-owned enterprises to the key variables such as employment, turnover and GVA. See Figure 8.9.

<sup>3</sup> In this section, the data for the number of enterprises and persons engaged are derived from the Structural Business Surveys while in the rest of this publication these variables are taken from CSO Business Demography statistics i.e. administrative sources. The two sources will produce marginally different results.

**Figure 8.9 All Sectors - Percentage contribution of foreign-owned enterprises to key variables, 2010 - 2011**



Construction is not a sector that is overly characterised by foreign-owned enterprises. It was estimated that 0.2% of enterprises in Construction were foreign-owned in 2011, which accounted for 2.7% of persons engaged and 2.5% of GVA.

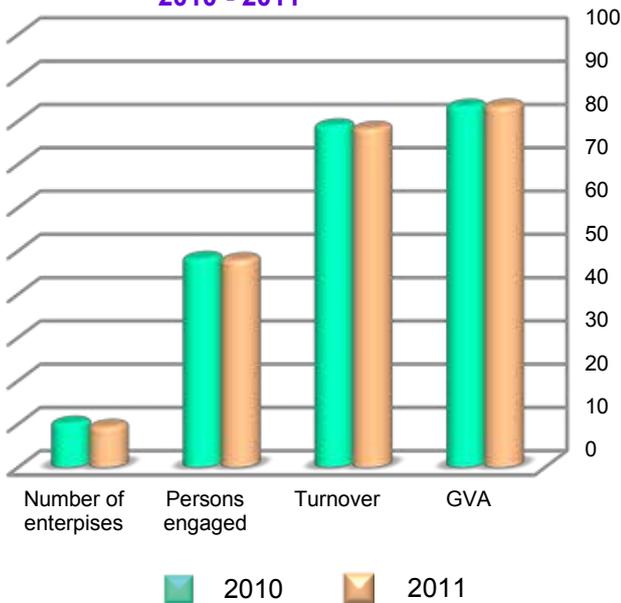
Distribution and Services showed a similar profile in terms of the importance of foreign multinationals.

In Distribution, over 1,200 (3.2%) foreign-owned enterprises accounted for almost 74,000 (22.7%) persons engaged and €6.9 billion (45.5%) GVA.

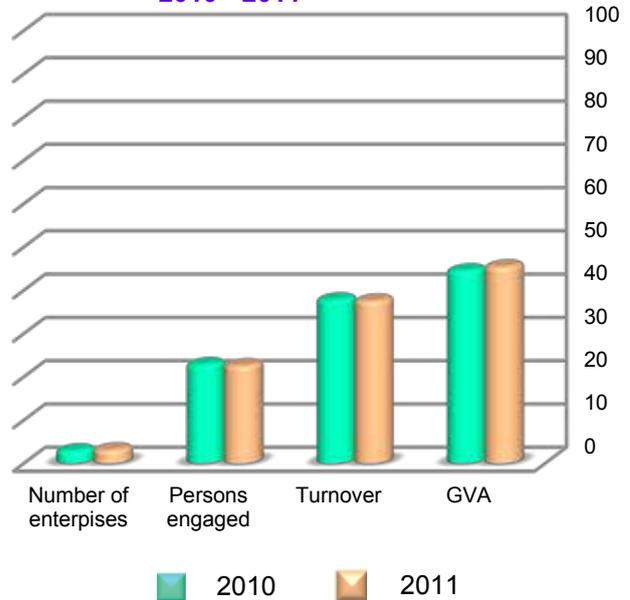
In Services, over 1,600 (1.9%) foreign-owned enterprises accounted for nearly 94,000 (16.5%) persons engaged and €14.5 billion (42.9%) GVA. See Figures 8.11 and 8.12.

Manufacturing, in particular, was dominated by foreign-owned enterprises in 2011 with 426 enterprises (9.4%) accounting for 80,400 (47.9%) persons engaged and €27.4 billion (83.4%) in GVA. See Figure 8.10.

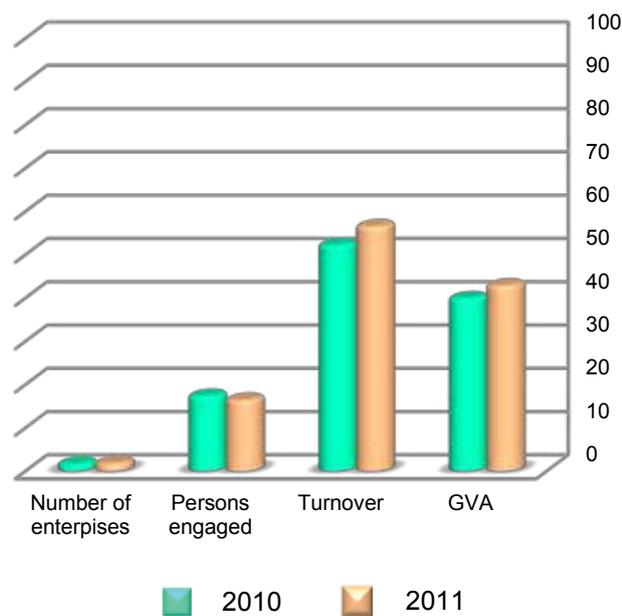
**Figure 8.10 Manufacturing - Percentage contribution of foreign-owned enterprises to key variables, 2010 - 2011**



**Figure 8.11 Distribution - Percentage contribution of foreign-owned enterprises to key variables, 2010 - 2011**



**Figure 8.12 Services - Percentage contribution of foreign-owned enterprises to key variables, 2010 - 2011**



### Nationality of foreign multinationals in Ireland

Of the €80.2 billion in turnover accounted for by foreign-owned enterprises in Manufacturing, €69.7 billion or 87.0% was generated from enterprises that were owned by multinationals outside the EU. The equivalent values for Distribution and Services were 60.2% and 73.8% respectively.

Of the €27.4 billion in GVA accounted for by foreign-owned enterprises in Manufacturing, €24.3 billion or 88.8% was generated from enterprises that were owned by entities outside the EU. The corresponding figures for Distribution and Services were 54.7% and 72.0% respectively. See Table 8.2.

### Sectoral breakdown of Irish-owned enterprises versus foreign-owned enterprises

Irish-owned enterprises (operating in Ireland) were more active in the sectors of Distribution and Services sectors compared to foreign-owned enterprises. Of the €139.3 billion in total turnover generated by Irish-owned enterprises, about three quarters was generated in the Distribution and Services sectors, while the equivalent figure for foreign-owned enterprises was 54.4%. See Table 8.2.

**Table 8.1 Irish-owned foreign affiliate statistics, persons engaged and turnover, 2011**

	Persons engaged			Turnover		
	Affiliates inside the EU	Affiliates outside the EU	Total	Affiliates inside the EU	Affiliates outside the EU	Total
Manufacturing	51,558	28,249	79,807	11,811	7,410	19,221
Other industrial	(c)	(c)	3,106	(c)	(c)	1,065
Construction	(c)	(c)	2,368	(c)	(c)	709
Services (incl. Distribution)	88,774	72,195	160,969	32,052	19,905	51,957
Distribution	(c)	(c)	104,056	(c)	(c)	27,988
Services (incl. Fin) <sup>1</sup>	(c)	(c)	56,913	(c)	(c)	23,969
<b>All sectors</b>	<b>144,185</b>	<b>102,065</b>	<b>246,250</b>	<b>45,177</b>	<b>27,774</b>	<b>72,952</b>

Source: CSO Outward Foreign Affiliates Survey

<sup>1</sup> Services covers NACE Rev. 2 H to S excluding O.

**Table 8.2 Structural business statistics by sector and nationality of ownership, 2011**

	Irish-owned	Foreign-owned affiliates			All enterprises
		Owned by EU multinationals	Owned by non-EU multinationals	Total	
<b>Number of enterprises<sup>1</sup></b>					
Manufacturing	4,090	195	231	426	<b>4,516</b>
Construction	28,028	n/a	n/a	52	<b>28,080</b>
Distribution	36,520	757	462	1,219	<b>37,739</b>
Services (excl. Fin) <sup>2</sup>	83,646	933	699	1,632	<b>85,278</b>
<b>All sectors</b>	<b>152,284</b>			<b>3,329</b>	<b>155,613</b>
<b>Number of persons engaged</b>					
Manufacturing	87,281	20,283	60,116	80,399	<b>167,680</b>
Construction	87,640	n/a	n/a	2,469	<b>90,109</b>
Distribution	251,889	54,456	19,331	73,787	<b>325,675</b>
Services (excl. Fin) <sup>2</sup>	473,888	44,922	48,814	93,736	<b>567,624</b>
<b>All sectors</b>	<b>900,698</b>			<b>250,391</b>	<b>1,151,089</b>
<b>Turnover (€millions)</b>					
Manufacturing	22,222	10,449	69,706	80,155	<b>102,377</b>
Construction	8,833	n/a	n/a	483	<b>9,316</b>
Distribution	64,216	15,427	23,322	38,749	<b>102,965</b>
Services (excl. Fin) <sup>2</sup>	44,064	15,037	42,447	57,484	<b>101,547</b>
<b>All sectors</b>	<b>139,335</b>			<b>176,871</b>	<b>316,205</b>
<b>GVA (€millions)</b>					
Manufacturing	5,437	3,067	24,341	27,408	<b>32,845</b>
Construction	3,280	n/a	n/a	83	<b>3,363</b>
Distribution	8,260	3,122	3,776	6,898	<b>15,157</b>
Services (excl. Fin) <sup>2</sup>	19,305	4,062	10,466	14,528	<b>33,833</b>
<b>All sectors</b>	<b>36,282</b>			<b>48,917</b>	<b>85,198</b>

Source: CSO structural business surveys

<sup>1</sup> The number of enterprises and persons engaged published in this table are derived from the Structural Business Surveys while the number of enterprises and persons engaged in the rest of this publication are taken from CSO Business Demography statistics ie administrative sources.

<sup>2</sup> Services covers NACE Rev. 2 H to N (excluding K) and R92, R93, S95, S96.

Structural Business Statistics for the financial sector are used to complete the coverage of the business economy in Ireland and to allow meaningful comparisons with other business sectors such as Industry and Services.

### Financial and insurance activities

The Financial and Insurance Activities sector, NACE Section K, has traditionally been excluded from the Structural Business Statistics arising from difficulties in generating definitions for production value, gross value added and gross operating surplus. However, these definitions have been developed over the last number of years at European level which now facilitates comparisons across sectors.

The Financial sector is described by NACE Section K. It includes:

- ◆ K64 – Financial Service Activities except Insurance and Pension Funding.
- ◆ K65 – Insurance, Reinsurance and Pension Funding.
- ◆ K66 – Activities Auxiliary to Financial Services and Insurance Activities.

K64 is dominated by credit institutions which in Ireland are banks and credit unions. However, it also includes activities of holding companies, investment funds and other financial service activities.

K65 includes life insurance companies, non-life insurance companies and reinsurance companies as well as pension funds.

K66 is the most diverse category and includes all financial auxiliaries including brokerage firms, insurance agents and fund management activities.

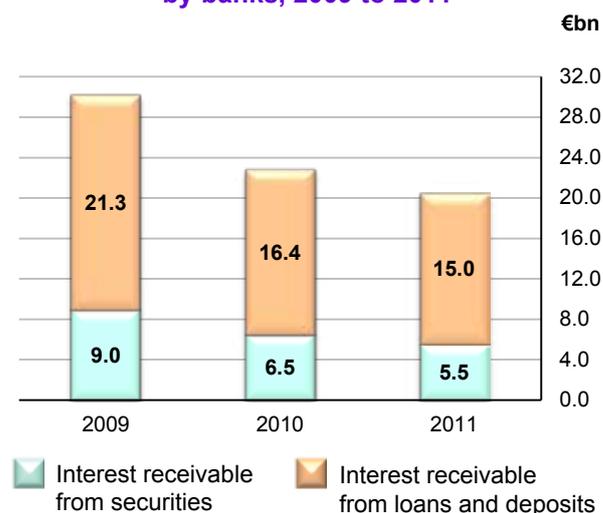
The business operations data presented for the Financial sector in Chapter 2 of this report covers banks, life insurance, non-life insurance and reinsurance. The detailed calculations of the main indicators for these enterprises are presented here. The calculations are based on an accounting framework where the income and expenses for the reference year 2011 are analysed in detail. See *Tables 9.1 and 9.2*.

Please note that 2009 and 2010 data in Tables 9.1 to 9.3 below have been revised subsequent to their initial publication in 2012. These revisions took place while compiling 2011 data during October 2013.

### Banks

In 2011, interest receivable for all resident banks in Ireland<sup>1</sup> was €20.6 billion, a reduction of €2.3 billion from 2010. The 2011 figure comprised of €15.0 billion in interest from loans and deposits and €5.5 billion in interest from securities held as assets. See *Figure 9.1 and Table 9.1*.

**Figure 9.1 Breakdown of interest receivable by banks, 2009 to 2011**

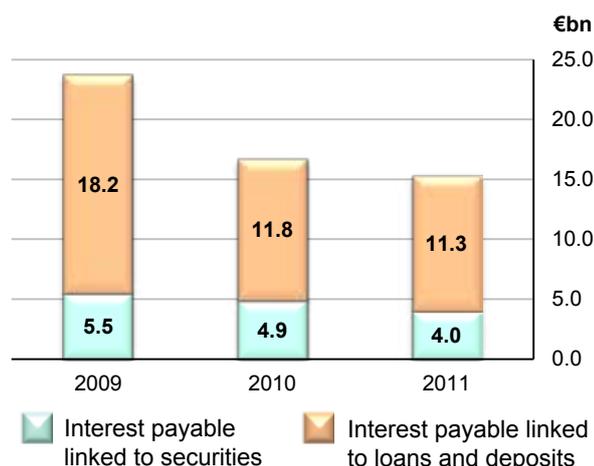


When commissions and other operating income are included, total income for banks in 2011 was €27.1 billion. Total income in 2009 and 2010 was €34.5 billion and €27.8 billion respectively.

Interest payable in 2011 from resident banks was €15.4 billion which comprised €11.3 billion in interest paid for loans and deposits and €4.0 billion in interest paid to holders of issued securities. Interest payable in 2010 was €16.7 billion while in 2009 it was €23.7 billion. See *Figure 9.2 and Table 9.1*.

<sup>1</sup> In 2011, there were 77 resident banks in Ireland (39 licensed banks and 38 branches of foreign banks).

**Figure 9.2 Breakdown of interest payable by banks, 2009 to 2011**



Please note that a definition of turnover does not exist for banks at European level, therefore for the purposes of this report, turnover is equal to production value. Also, the concept of Financial Intermediation Services Indirectly Measured (FISIM)<sup>2</sup> is not used in Structural Business Statistics.

Gross value added (GVA) for banks was €8.8 billion in 2011. This was an increase of €1.6 billion from 2010 despite falling interest receivable. The rise in GVA resulted mainly from a significant rise in other operating income and a reduction in interest payable and commissions payable. See Table 9.1.

Gross operating surplus, which is GVA minus personnel costs, was €5.8 billion in 2011 rising from €4.6 billion in 2010. This was the amount of money that was earned by banks through their normal operations which was used to fund the operation of the business, meet tax obligations, pay out dividends, or to meet the cost of write-downs on the value of loans advanced to customers.

**Table 9.1 Production account and generation of income for all banks, 2009 - 2011**

	2009	2010	2011
	€m	€m	€m
All interest receivable	30,270	22,881	20,552
Interest receivable from securities	8,960	6,487	5,530
Interest receivable from loans and deposits	21,310	16,396	15,023
Commissions receivable	1,683	2,122	1,916
Other operating income	2,555	2,785	4,618
All Income	34,508	27,788	27,087
All Interest payable and similar charges	23,729	16,739	15,355
Interest payable linked to securities	5,498	4,925	4,020
Interest payable linked to loans and deposits	18,232	11,814	11,334
<b>Production value<sup>1</sup> excluding value adjustments and profits from affiliates</b>	<b>10,779</b>	<b>11,050</b>	<b>11,733</b>
Interest Margin <sup>2</sup>	6,541	6,143	5,198
Commissions payable	914	1,067	450
Other administrative expenses (other than labour costs)	486	822	625
Other operating charges	2,063	1,942	1,864
<b>Gross value added at factor cost<sup>3</sup></b>	<b>7,316</b>	<b>7,217</b>	<b>8,793</b>
Personnel costs	2,354	2,617	2,989
<b>Gross operating surplus<sup>4</sup></b>	<b>4,963</b>	<b>4,601</b>	<b>5,804</b>

Source: CSO/Central Bank survey of credit institutions

<sup>1</sup> All income less all interest payable and similar charges.

<sup>2</sup> All interest received less all interest payable and similar charges.

<sup>3</sup> Production value less commissions payable, other administrative expenses (other than labour costs) and other operating expenses.

<sup>4</sup> Gross value added less personnel costs.

## Insurance

Gross premiums earned, which is defined as turnover in Structural Business Statistics, amounted to €38.9 billion in 2011 for all insurance companies in Ireland<sup>3</sup>. This is a fall of approximately €300 million on the 2010 figure.

Besides gross premiums, other sources of income for insurance companies in 2011 included portfolio investment income of €4.1 billion and income from the provision of other services of €1.7 billion. Both of these sources of income fell in 2011 compared to 2010.

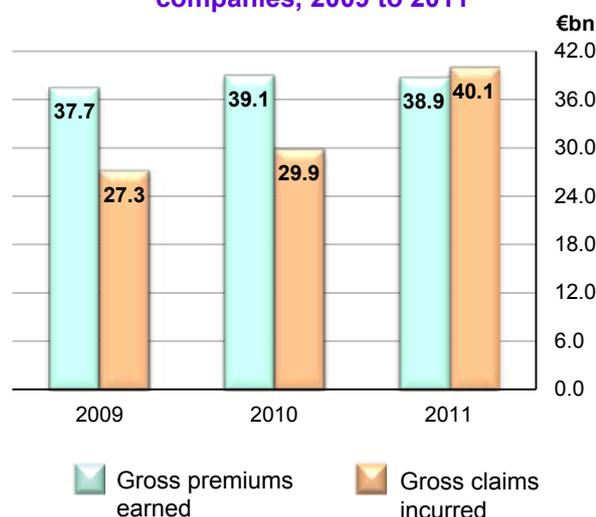
Gross claims incurred by insurance companies in 2011 were €40.1 billion, which was a large increase

<sup>2</sup> In the System of National Accounts, FISIM is used to estimate the value of the services provided by financial intermediaries such as banks.

<sup>3</sup> In 2011, there were 63 life insurance companies, 141 non-life insurance companies and 120 reinsurance companies.

of €10.1 billion from 2010. This large increase was caused by a small number of large transactions in 2011. The outcome of this was that gross claims incurred were greater than gross premiums earned in the most recent year of 2011. See Figure 9.3 and Table 9.2.

**Figure 9.3 Gross premiums earned and gross claims incurred by insurance companies, 2009 to 2011**



In order to offset the large rise in gross claims, there was a similar magnitude change in the life insurance provision at €10.4 billion. Note that a fall in the technical provisions on the balance sheet of an insurance company often leads to a gain being recorded on the profit and loss account. This is what occurred with the positive changes in life insurance provisions.

Production value amounted to €10.9 billion for all insurance companies in 2011, a fall of almost €1.0 billion compared to 2010. The offsetting change in the life insurance provision was not enough to compensate for falling income (in particular portfolio investment income), inflated gross claims and investment losses of €4.0 billion.

GVA for insurance companies was €2.5 billion in 2011, a decrease of almost €1.3 billion compared to 2010. Increases in both reinsurance services received and other intermediate consumption (e.g. commissions, brokerage, fronting fees etc.) partly drove the fall in GVA.

Gross operating surplus or profit for insurance companies was €1.8 billion in 2011 dropping from just over €3.0 billion in 2010. See Table 9.2.

### Summary

By amalgamating the data on banks and insurance, it is possible to produce key indicators which can then be used to compare the Financial sector with the other business sectors in the economy. See Table 9.3.

**Table 9.2 Production account and generation of income for all insurance companies, 2009-2011**

	2009	2010	2011
	€m	€m	€m
Gross premiums earned	37,655	39,144	38,870
Portfolio investment income	4,664	4,717	4,122
Investment income (Technical a/c)	3,760	4,131	3,623
Investment income (Non-Technical a/c)	903	586	500
Other services produced	1,876	2,045	1,673
Fees receivable (commissions etc)	879	1,114	1,262
Other income - Technical a/c	998	932	411
Gross claims incurred	27,280	29,949	40,078
Gross claims payments	27,593	30,175	40,308
Gross change in the provision for outstanding claims	-314	-227	-230
Capital gains and provisions	-5,377	-4,030	6,349
Capital gains/losses realised and unrealised	11,834	8,682	-4,004
Gross change in life insurance provision	-17,211	-12,711	10,352
<b>Production value<sup>1</sup></b>	<b>11,539</b>	<b>11,928</b>	<b>10,936</b>
Gross value of reinsurance services received	1,622	1,358	1,501
Other intermediate consumption	6,644	6,772	6,901
<b>Gross value added at factor cost<sup>2</sup></b>	<b>3,273</b>	<b>3,799</b>	<b>2,533</b>
Personnel Costs	765	762	749
<b>Gross operating surplus<sup>3</sup></b>	<b>2,508</b>	<b>3,037</b>	<b>1,785</b>

Source: CSO Balance of Payments surveys of insurance corporations

<sup>1</sup> Includes gross premium earned, portfolio investment income, other services produced, capital gains and provisions less gross claims incurred.

<sup>2</sup> Production value less gross value of reinsurance services received and other intermediate consumption.

<sup>3</sup> Gross value added at factor cost less personnel costs.

**Table 9.3 Summary of main indicators for banks and insurance, 2011**

	€m		
	Banks	Insurance	Total
Turnover	11,773	38,870	50,603
Production value	11,773	10,936	22,669
Gross value added	8,793	2,533	11,326
<i>of which</i>			
Gross operating surplus	5,804	1,785	7,589
Personnel costs	2,989	749	3,738

Source: CSO/Central Bank survey of credit institutions and CSO Balance of Payments surveys of insurance corporations





## International comparisons

Some international comparisons of the key characteristics of the business economy are presented here. These comparisons are possible as Structural Business Statistics are collected across most of the 27 countries of the European Union (EU27). The reference year used is 2010, as data for 2011 is incomplete for some large countries. All data is available on the Eurostat website.

### Business Demography

Business Demography data are used to compile international comparisons for the number of active enterprises and the number of persons engaged in the broad sectors. Please note that for the purposes of this chapter Services is defined as NACE Sectors H, I, J, L, M and N.

#### Active enterprises

Industry accounted for 7.3% of the total number of active enterprises in Ireland in 2010. Only Luxembourg and the Netherlands had a smaller percentage of enterprises engaged in Industry at 3.5% and 6.7% respectively, while the Czech Republic recorded the largest percentage at 17.0%. See Figure 10.1 and Table 10.1.

Construction accounted for 20.7% of active enterprises in Ireland which was the largest percentage across the EU27 countries. This was due to Construction in Ireland being characterised by many small enterprises.

Distribution in Ireland accounted for 22.5% of active enterprises, with only Slovenia, Finland, Sweden and the United Kingdom recording lower percentages.

There were more than twice as many Services enterprises in Ireland at 46.8% compared to Distribution enterprises. This was the case in many of the EU countries that had joined in advance of 2004. By contrast, many of the countries that entered the EU since 2004 had a similar number of Services enterprises compared to Distribution enterprises.

Financial and Insurance Activities accounted for 2.7% of active enterprises in Ireland. Luxembourg and Hungary had the largest percentage of enterprises in Financial and Insurance Activities at 4.8% each.

Figure 10.1 Percentage share of active enterprises by sector, 2010



<sup>1</sup> <http://www.cs0.ie/shorturl.aspx/198>

## Number of persons engaged

Industry accounted for 16.4% of the total number of persons engaged in Ireland. There were only four countries (Luxembourg, United Kingdom, Netherlands and Cyprus) with a lower percentage than Ireland. Romania, Czech Republic and Slovakia had more than 35% of total employment in Industry. See *Figure 10.2 and Table 10.2*.

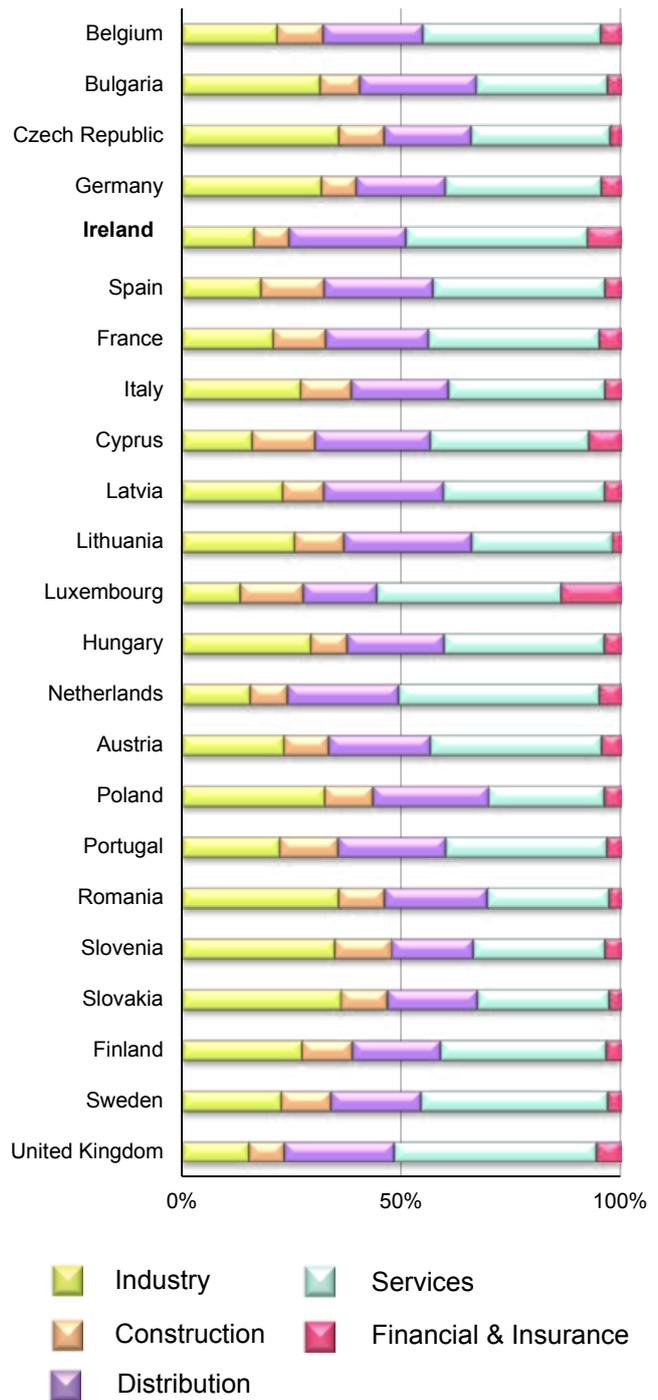
Construction accounted for 8.0% of the total number of persons engaged in both Ireland and Germany, which was the lowest proportion across the EU27 countries. In the case of Ireland, this proportion has fallen from 15.5% in 2006. Spain had the highest proportion in 2010 in the EU27 at 14.5%.

Distribution accounted for 26.7% of the total number of persons engaged in Ireland. Only Latvia and Lithuania had higher proportions working in Distribution.

Services accounted for 41.3% of the total number of persons engaged in Ireland. The United Kingdom recorded the largest percentage at 46.0%.

Financial and Insurance activities accounted for 7.6% of the total number of persons engaged in Ireland. This was the second largest percentage across the EU27 but was still much lower than the percentage recorded in Luxembourg at 13.5%.

**Figure 10.2 Percentage share of persons employed by sector, 2010**



## Business Operations

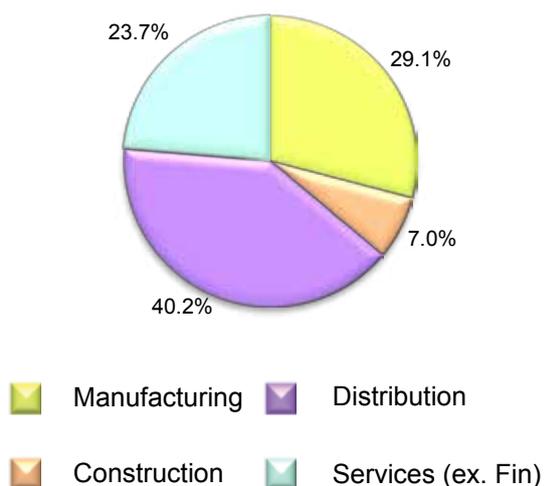
The structural business surveys are used to compile international comparisons for turnover, gross value added (GVA), productivity and profitability. See Tables 10.3 to 10.5.

The sectoral breakdown is somewhat different in these tables compared to the Business Demography data presented in Tables 10.1 and 10.2. Industry has been replaced by Manufacturing for confidentiality reasons and it was not possible to include the Financial and Insurance Activities sector.

## Turnover

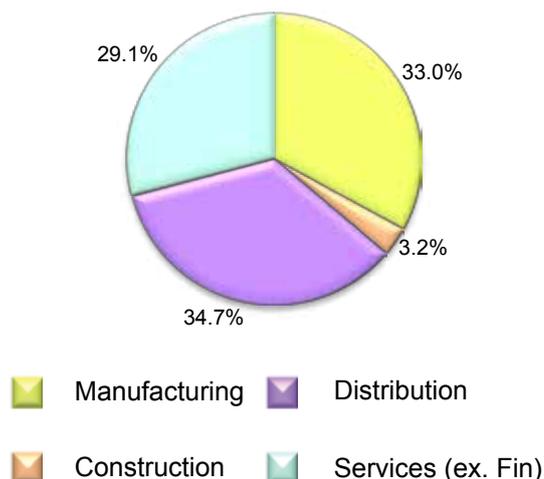
Total turnover in the EU27 in 2010 was €22,043 billion with Distribution accounting for two fifths of this figure. Manufacturing accounted for 29.1% of total turnover while Services accounted for 23.7%. The Construction sector only accounted for 7.0% of total turnover. See Figure 10.3 and Table 10.3.

**Figure 10.3 EU27 share of turnover by sector, 2010**



Total turnover in Ireland in 2010 was €293 billion with both Distribution and Manufacturing accounting for about one third each. Services accounted for a marginally lower proportion at 29.1% while Construction only accounted for 3.2%. See Figure 10.4 and Table 10.3.

**Figure 10.4 Ireland share of turnover by sector, 2010**



## Gross value added (GVA)

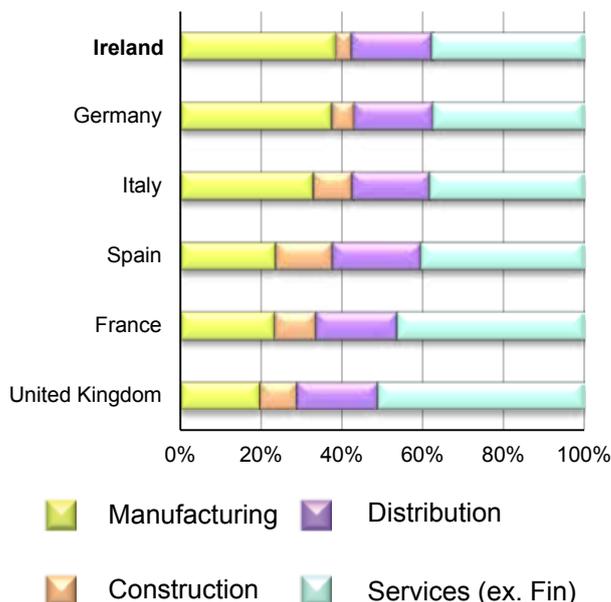
In Ireland, Manufacturing accounted for 38.2% of total GVA. Germany recorded a percentage only marginally lower at 37.3%. In the UK, Manufacturing accounted for a much lower percentage of GVA at 19.7%. See Figure 10.5 and Table 10.4.

Compared to the large EU countries, the Construction sector in Ireland accounted for a very low percentage of GVA at 4.0%. Spain had one of the highest percentages at 14.0%.

The Distribution sector in Ireland accounted for about one fifth of GVA which was a similar percentage to the large countries across the EU.

Services accounted for 37.9% of GVA in Ireland while the highest percentage of 51.1% was recorded in the United Kingdom.

**Figure 10.5 Selected EU countries share of GVA by sector, 2010**

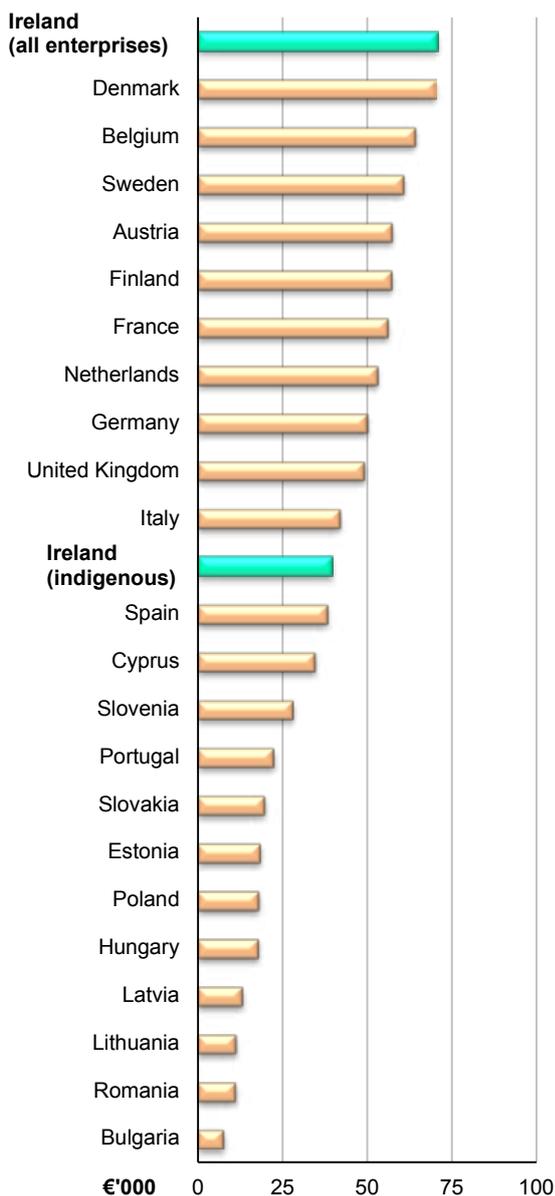


## Comparing productivity across countries

Across all sectors, Ireland recorded the highest figure in the EU27 for GVA per person engaged at €70,900. When foreign-owned enterprises were excluded from the Irish data, GVA per person engaged fell to €39,500. The foreign-owned enterprises were removed from the analysis here to show the impact that they have on the Irish figures. As a similar exercise has not been completed for the other countries, comparing indigenous Irish enterprises to all enterprises in other countries is not a like for like comparison.

GVA per person engaged in the UK and Germany was about €50,000 while the lowest figures recorded in the EU27 were in the countries of Bulgaria, Romania, Lithuania and Latvia. See Figure 10.6 and Table 10.5.

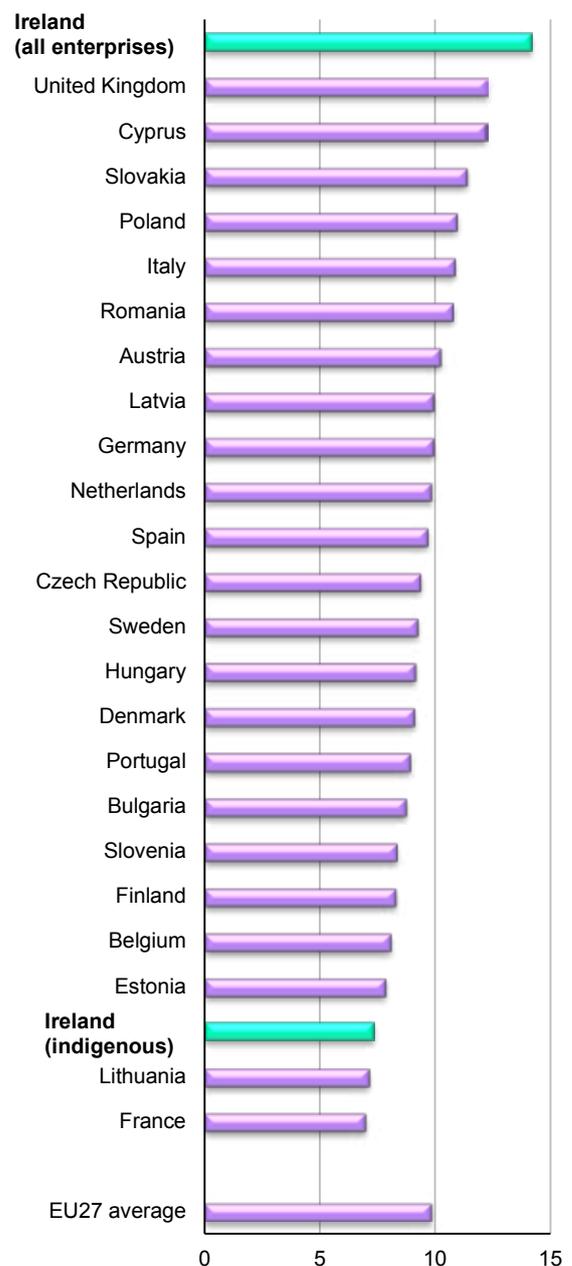
**Figure 10.6 GVA per person engaged in all sectors by country, 2010**



## Comparing profitability across countries

Across all sectors, Ireland recorded gross operating surplus as a percentage of turnover of 14.2%, which was the highest profitability rate in the EU. When foreign owned enterprises were excluded from the Irish data the figure almost halved to 7.3%. Only two countries, France and Lithuania, had a lower profitability rate than Irish indigenous enterprises. See Figure 10.7 and Table 10.6.

**Figure 10.7 Gross operating surplus as a percentage of turnover in all sectors by country, 2010**



**Table 10.1 Share of active enterprises across broad sectors in selected EU countries, 2010**

	Total active enterprises	Industry	Construction	Distribution	Services	Financial & Insurance	All sectors
	000's	%	%	%	%	%	%
<b>European Union (EU27)</b>	:	:	:	:	:	:	:
Belgium	535	7.4	16.2	27.5	46.6	2.2	100.0
Bulgaria	324	10.4	6.8	44.3	37.1	1.3	100.0
Czech Republic	970	17.0	16.8	25.7	38.6	1.9	100.0
Denmark	:	:	:	:	:	:	:
Germany	2,959	10.6	12.9	23.4	50.9	2.2	100.0
Estonia	70	11.2	12.5	24.9	49.8	1.5	100.0
<b>Ireland</b>	<b>195</b>	<b>7.3</b>	<b>20.7</b>	<b>22.5</b>	<b>46.8</b>	<b>2.7</b>	<b>100.0</b>
Greece	:	:	:	:	:	:	:
Spain	3,102	7.7	18.0	27.9	43.9	2.4	100.0
France	2,948	8.8	17.5	26.7	44.7	2.3	100.0
Italy	3,985	11.2	15.6	30.0	41.1	2.2	100.0
Cyprus	51	11.8	18.9	32.9	32.9	3.5	100.0
Latvia	83	10.6	8.5	30.4	48.3	2.1	100.0
Lithuania	121	11.5	11.4	42.8	33.3	0.9	100.0
Luxembourg	28	3.5	11.3	25.4	54.9	4.8	100.0
Hungary	563	9.7	11.7	24.8	49.0	4.8	100.0
Malta	:	:	:	:	:	:	:
Netherlands	787	6.7	16.0	24.5	50.2	2.6	100.0
Austria	337	9.7	10.2	24.6	53.4	2.1	100.0
Poland	1,957	12.8	15.5	34.4	33.6	3.7	100.0
Portugal	877	8.8	12.2	29.2	47.4	2.4	100.0
Romania	450	11.9	11.0	40.4	35.3	1.4	100.0
Slovenia	123	15.2	18.0	20.5	44.6	1.7	100.0
Slovakia	374	16.0	19.2	31.1	32.5	1.1	100.0
Finland	287	11.0	16.7	21.4	48.8	2.1	100.0
Sweden	667	8.9	13.7	20.1	56.0	1.3	100.0
United Kingdom	2,013	7.5	15.9	20.3	54.5	1.7	100.0

Source: Eurostat - Business Demography Data

**Table 10.2 Share of persons engaged across broad sectors in selected EU countries, 2010**

	Total persons engaged	Industry	Construction	Distribution	Services	Financial & Insurance	All sectors
	000's	%	%	%	%	%	%
<b>European Union (EU27)</b>	:	:	:	:	:	:	:
Belgium	2,680	21.7	10.6	22.7	40.4	4.7	100.0
Bulgaria	2,013	31.4	9.2	26.5	29.9	3.1	100.0
Czech Republic	3,987	35.6	10.4	19.8	31.6	2.5	100.0
Denmark	:	:	:	:	:	:	:
Germany	23,335	31.7	8.0	20.3	35.5	4.5	100.0
Estonia	:	:	:	:	:	:	:
<b>Ireland</b>	<b>1,237</b>	<b>16.4</b>	<b>8.0</b>	<b>26.7</b>	<b>41.3</b>	<b>7.6</b>	<b>100.0</b>
Greece	:	:	:	:	:	:	:
Spain	12,509	18.0	14.5	24.8	39.1	3.7	100.0
France	16,999	20.7	12.1	23.4	38.9	5.0	100.0
Italy	16,011	27.0	11.5	22.1	35.6	3.7	100.0
Cyprus	259	16.0	14.4	26.2	36.1	7.3	100.0
Latvia	566	22.9	9.5	27.1	36.7	3.8	100.0
Lithuania	905	25.6	11.3	29.0	31.9	2.1	100.0
Luxembourg	290	13.3	14.4	16.7	42.1	13.5	100.0
Hungary	2,534	29.3	8.3	22.0	36.5	3.9	100.0
Malta	:	:	:	:	:	:	:
Netherlands	5,753	15.5	8.5	25.4	45.6	5.0	100.0
Austria	2,801	23.2	10.2	23.1	39.0	4.4	100.0
Poland	9,533	32.4	11.1	26.2	26.4	3.9	100.0
Portugal	3,357	22.2	13.4	24.5	36.7	3.2	100.0
Romania	3,809	35.6	10.6	23.3	27.7	2.8	100.0
Slovenia	634	34.7	13.0	18.7	30.0	3.7	100.0
Slovakia	1,319	36.2	10.6	20.5	30.0	2.7	100.0
Finland	1,419	27.3	11.5	20.1	37.7	3.4	100.0
Sweden	2,944	22.6	11.3	20.5	42.5	3.0	100.0
United Kingdom	18,732	15.3	8.1	25.0	46.0	5.6	100.0

Source: Eurostat - Business Demography Data

**Table 10.3 Share of turnover across broad sectors in EU27 countries, 2010**

	Total Turnover	Manufacturing	Construction	Distribution	Services (ex. Fin) <sup>1</sup>	All sectors
	€ billions	%	%	%	%	%
<b>European Union (EU27)</b>	<b>22,042.8</b>	<b>29.1</b>	<b>7.0</b>	<b>40.2</b>	<b>23.7</b>	<b>100.0</b>
Belgium	842.8	28.1	6.7	44.6	20.6	100.0
Bulgaria	84.4	26.1	8.3	48.8	16.7	100.0
Czech Republic	363.3	36.5	8.7	35.5	19.3	100.0
Denmark	396.4	21.5	5.7	43.7	29.0	100.0
Germany	4,543.3	38.5	3.8	36.8	20.9	100.0
Estonia	34.1	23.1	7.1	44.7	25.1	100.0
<b>Ireland</b>	<b>293.0</b>	<b>33.0</b>	<b>3.2</b>	<b>34.7</b>	<b>29.1</b>	<b>100.0</b>
Greece	:	:	:	:	:	:
Spain	1,702.7	26.2	11.8	38.7	23.3	100.0
France	3,265.8	26.0	7.9	39.6	26.6	100.0
Italy	2,588.9	33.6	8.0	36.8	21.5	100.0
Cyprus	25.4	14.5	11.9	47.9	25.8	100.0
Latvia	35.1	16.5	7.7	51.0	24.7	100.0
Lithuania	48.1	29.7	5.9	43.8	20.6	100.0
Luxembourg	:	:	:	:	:	:
Hungary	222.8	39.2	5.7	33.7	21.5	100.0
Malta	:	:	:	:	:	:
Netherlands	1,174.9	23.0	7.3	45.7	24.1	100.0
Austria	537.8	28.7	7.5	40.3	23.5	100.0
Poland	714.6	33.0	8.5	42.0	16.5	100.0
Portugal	314.2	24.4	11.2	42.3	22.1	100.0
Romania	190.3	28.9	9.1	44.5	17.5	100.0
Slovenia	71.0	32.3	8.5	38.5	20.8	100.0
Slovakia	132.7	40.6	6.8	35.8	16.9	100.0
Finland	333.2	37.0	7.2	34.8	20.9	100.0
Sweden	625.5	28.6	7.8	35.3	28.2	100.0
United Kingdom	3,097.7	18.2	6.9	45.9	29.0	100.0

Source: Eurostat - Business Survey Data

<sup>1</sup> Services covers NACE sections H, I, J, L, M and N (excludes K, R and S).

**Table 10.4 Share of value added across broad sectors in EU27 countries, 2010**

	Gross value added	Manufacturing	Construction	Distribution	Services (ex. Fin) <sup>1</sup>	All sectors
	€billions	%	%	%	%	%
<b>European Union (EU27)</b>	:	:	:	:	:	:
Belgium	166.6	28.8	8.6	23.2	39.5	100.0
Bulgaria	14.3	28.9	9.4	23.6	38.1	100.0
Czech Republic	73.4	39.8	9.2	17.9	33.1	100.0
Denmark	103.7	25.3	7.8	21.7	45.2	100.0
Germany	1,221.8	37.3	5.5	19.6	37.5	100.0
Estonia	6.5	29.2	7.7	19.8	43.3	100.0
<b>Ireland</b>	<b>77.6</b>	<b>38.2</b>	<b>4.0</b>	<b>19.9</b>	<b>37.9</b>	<b>100.0</b>
Greece	:	:	:	:	:	:
Spain	450.0	23.6	14.0	22.0	40.4	100.0
France	834.1	23.3	10.3	20.2	46.3	100.0
Italy	628.0	32.7	9.6	19.3	38.4	100.0
Cyprus	8.3	14.0	18.5	23.8	43.8	100.0
Latvia	6.9	22.3	7.3	25.3	45.1	100.0
Lithuania	8.5	29.6	7.8	24.4	38.2	100.0
Luxembourg	:	:	:	:	:	:
Hungary	42.4	41.2	5.6	16.8	36.3	100.0
Malta	:	:	:	:	:	:
Netherlands	277.7	20.7	9.5	24.3	45.4	100.0
Austria	143.4	31.5	9.7	20.0	38.8	100.0
Poland	143.0	34.6	9.4	24.2	31.8	100.0
Portugal	72.0	24.9	11.9	23.6	39.6	100.0
Romania	39.3	32.5	12.0	22.2	33.3	100.0
Slovenia	16.4	37.7	8.4	20.6	33.3	100.0
Slovakia	28.2	34.4	8.8	24.8	32.1	100.0
Finland	79.3	33.4	10.2	18.0	38.3	100.0
Sweden	172.2	29.5	9.4	19.7	41.5	100.0
United Kingdom	851.8	19.7	9.3	20.0	51.1	100.0

Source: Eurostat - Business Survey Data

<sup>1</sup> Services covers NACE sections H, I, J, L, M and N (excludes K, R and S).

**Table 10.5 Gross value added per person engaged across broad sectors in EU27 countries, 2010**

	Manufacturing	Construction	Distribution	Services (ex. Fin) <sup>1</sup>	All sectors
	€000's	€000's	€000's	€000's	€000's
<b>European Union (EU27)</b>	:	<b>37.0</b>	:	<b>44.3</b>	:
Belgium	89.3	47.0	60.7	58.7	64.2
Bulgaria	7.7	7.3	6.4	9.3	7.8
Czech Republic	24.4	16.6	19.0	:	:
Denmark	89.0	55.1	54.0	75.8	70.2
Germany	65.8	41.1	40.3	46.3	50.0
Estonia	19.9	13.1	15.7	21.0	18.6
<b>Ireland</b>	<b>179.0</b>	<b>34.1</b>	<b>46.9</b>	<b>57.8</b>	<b>70.9</b>
Greece	:	:	:	:	:
Spain	52.7	38.0	31.9	36.6	38.3
France	62.5	47.7	49.7	58.8	56.1
Italy	51.4	33.2	34.6	42.7	42.0
Cyprus	33.0	42.6	29.7	35.8	34.7
Latvia	14.2	9.5	11.5	15.2	13.3
Lithuania	14.0	8.2	8.9	12.9	11.4
Luxembourg	70.7	50.0	84.0	:	:
Hungary	26.7	11.2	12.7	16.7	18.0
Malta	:	:	:	:	:
Netherlands	82.6	54.1	46.5	48.5	53.0
Austria	75.5	50.7	46.5	55.0	57.3
Poland	20.6	14.9	15.2	19.8	18.1
Portugal	25.8	19.1	20.7	23.2	22.5
Romania	11.3	11.7	9.8	12.4	11.3
Slovenia	31.3	17.7	28.8	29.0	28.2
Slovakia	21.5	14.0	18.8	21.7	19.9
Finland	71.5	46.9	48.7	55.5	57.2
Sweden	77.4	48.9	54.0	58.5	60.8
United Kingdom	66.1	57.1	36.3	49.7	49.1

Source: Eurostat - Business Survey Data

<sup>1</sup> Services covers NACE sections H, I, J, L, M and N (excludes K, R and S).

**Table 10.6 Gross operating surplus as a percentage turnover, EU27 countries, 2010**

	Manufacturing	Construction	Distribution	Services (ex. Fin) <sup>1</sup>	All sectors
	%	%	%	%	%
<b>European Union (EU27)</b>	<b>9.0</b>	<b>10.7</b>	<b>5.0</b>	<b>18.7</b>	<b>9.8</b>
Belgium	8.2	9.4	4.1	16.1	8.1
Bulgaria	9.3	9.0	4.3	20.5	8.7
Czech Republic	10.0	9.4	4.6	17.0	9.4
Denmark	10.7	6.7	3.8	16.3	9.1
Germany	7.6	10.0	5.1	22.5	9.9
Estonia	9.9	3.2	2.9	16.0	7.8
<b>Ireland</b>	<b>22.3</b>	<b>9.9</b>	<b>6.0</b>	<b>15.2</b>	<b>14.2</b>
Greece	:	:	:	:	:
Spain	8.4	10.4	5.3	18.0	9.7
France	5.5	6.5	3.6	13.5	7.0
Italy	8.7	12.5	6.0	21.9	10.8
Cyprus	11.1	21.2	5.2	21.6	12.2
Latvia	13.6	7.0	4.7	19.1	9.9
Lithuania	8.0	4.8	3.4	14.6	7.1
Luxembourg	5.2	9.1	2.7	:	:
Hungary	11.2	7.6	3.4	14.9	9.1
Malta	:	:	:	:	:
Netherlands	9.2	10.0	5.4	18.7	9.8
Austria	11.0	9.8	4.5	19.2	10.2
Poland	10.9	11.2	6.6	21.8	10.9
Portugal	9.0	7.6	4.5	17.7	8.9
Romania	11.4	16.0	5.6	20.2	10.8
Slovenia	9.8	4.8	4.5	14.5	8.3
Slovakia	8.9	16.5	8.4	21.6	11.4
Finland	8.0	9.4	4.0	15.5	8.3
Sweden	10.4	7.8	5.0	13.8	9.2
United Kingdom	14.3	17.5	5.1	21.0	12.3

Source: Eurostat - Business Survey Data

<sup>1</sup> Services covers NACE sections H, I, J, L, M and N (excludes K, R and S).

## International Sourcing Survey 2009 to 2011 - a case study for systematic micro data linking

Barra Casey, CSO<sup>1</sup>

### Executive Summary

The results of the International Sourcing Survey 2009-2011 were presented recently by the CSO<sup>2</sup>. This survey focused on the extent to which businesses in Ireland moved business functions abroad between 2009 and 2011. A similar survey was carried out by fifteen of the twenty-seven Member States of the EU. This article will present the key results in Ireland and across the EU.

The CSO subsequently carried out a micro data linking exercise using the International Sourcing Survey in order to enrich the data already collected. This was a coordinated project with our European partners to test and implement a centrally developed methodology for micro data linking. The benefits of micro data linking include the production of new statistical outputs at minimal extra cost to the CSO and no extra burden on respondents. The European project will be outlined and initial outputs from the micro data linking exercise will be presented.

### What is Economic Globalisation?

Eurostat recently commissioned Timothy J. Sturgeon of Massachusetts Institute of Technology (MIT) to outline the theoretical background to economic globalisation and make recommendations on how statistical offices can better measure it.

Sturgeon (2013) tells us that economic globalisation is made up of three types of trade:

- ◆ traditional arm's length trade
- ◆ intra-enterprise trade related to foreign direct investment (FDI)
- ◆ external international sourcing

Traditional arm's length trade is simply the sales and purchases of goods and services between unrelated enterprises in different countries. The transactions are straightforward in the sense that the buyer offers a good or service for sale and the purchaser takes the offer with little or no control over how the good or service was produced.

Intra-enterprise trade related to FDI is trade between enterprises within the same group. An example of this is the global group head of a multinational enterprise in the UK purchasing a good or service from an affiliate in Ireland. As multinationals have expanded their operations globally, this form of trade has grown in popularity.

The third form of trade, external international sourcing, seems very similar to arm's length trade in that this trade occurs between two unrelated enterprises. However, external international sourcing requires high levels of explicit coordination that differentiate it from arm's length trade. In the

words of Sturgeon, "external international sourcing arrangements imbue inter-enterprise trade with characteristics similar to intra-group trade: better control from the centre, higher levels of bi-lateral information flow... and a harmonisation and immediate integration of business processes...". External international sourcing can be used by domestic enterprises to replace a business function that was previously carried out internally.

### CSO Statistics on Economic Globalisation

The CSO has various sources for the measurement of globalisation in relation to public and private enterprises in Ireland. Some of these statistics are as follows:

- ◆ Quarterly Balance of International Payments
- ◆ Quarterly International Investment Position and External Debt
- ◆ Annual Foreign Direct Investment
- ◆ Annual Resident Holdings of Foreign Portfolio Securities
- ◆ Monthly Goods Exports and Imports
- ◆ Annual International Trade in Services
- ◆ Inward and Outward Foreign Affiliates Statistics

A more recent addition to this list is the International Sourcing Survey which has been conducted twice by the CSO on an ad hoc basis. The first iteration of the survey was for the reference period 2001-2006 while the second iteration was for the reference period 2009-2011. The purpose of the International Sourcing Survey was to establish data on the movement of Irish business activity abroad

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<sup>2</sup> Irish results for the International Sourcing Survey 2009-2011: <http://www.cso.ie/shorturl.aspx/190>

during the reference period 2009-2011. It provided information on the level and pattern of international sourcing in the Irish business economy. International sourcing involves the movement of one or more business functions abroad to an enterprise within or outside the enterprise group.

Eurostat (European Commission Statistical Office) has established a number of working groups to look at new ways to measure the increased internationalisation of business. The International Sourcing Survey was developed within this European framework. The survey is not currently a legal requirement in the EU.

### Business functions – opening the black box of the enterprise

The International Sourcing Survey is different from other business surveys in that it uses the “business function” as a way of examining more closely the activities of enterprises. Typically, the business function that is used for producing the main output of the enterprise determines how the enterprise is classified statistically. For example, an enterprise that produces chemical products would be classified to NACE Rev. 2 sector C20 “Manufacture of chemicals and chemical products”. However, the enterprise that produces chemicals may also be supported by various other business functions such as marketing and sales, logistics and distribution, ICT and R&D services. Therefore, by using business functions, the International Sourcing Survey is able to reveal more information about how enterprises operate internally.

In the International Sourcing Survey, seven business functions were identified<sup>3</sup>. This consisted of one core business function which is the primary activity of the enterprise and will in most cases equate with the NACE code of the enterprise. The core business function includes the production of final goods or services intended for the market or other third parties.

There were a further six support business functions included in the International Sourcing Survey. These are carried out in order to permit or facilitate production of goods or services. The outputs of the support business functions are not themselves intended directly for the market or for third parties.

The seven business functions used in the survey are as follows:

- ◆ Production of goods and/or services for the market
- ◆ Distribution and logistics
- ◆ Marketing, sales and after sales services
- ◆ CT services

- ◆ Administrative and management functions
- ◆ R&D, engineering and related technical services
- ◆ Other support functions

### Target Population for the survey

The International Sourcing Survey 2009-2011 was a census of all enterprises in Ireland with 100 or more employees in the Irish business economy (NACE Rev. 2 sectors B to N excluding K). Enterprises were identified using the CSO Central Business Register. The survey was issued to 1259 enterprises and the overall response rate was 44.3 per cent<sup>4</sup>.

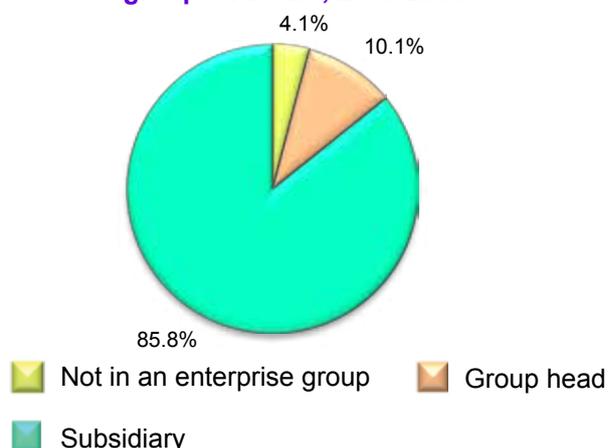
### Definition of international sourcing in the context of the survey

Sourcing refers to the movement of business functions from an enterprise to another enterprise within or outside the group. The movement of business functions within Ireland is referred to as domestic sourcing. The movement of business functions outside Ireland (including previously domestically sourced functions) is referred to as international sourcing.

### Main findings in an Irish context

Almost 12% of large Irish enterprises (100 or more employees) engaged in international sourcing during the period 2009 to 2011. Therefore for these enterprises the responsibility for carrying out a business function was moved from the Irish resident enterprise to another enterprise abroad. Enterprises that moved business functions prior to 2009 were not included in the definition of international sourcing. Of those enterprises that engaged in international sourcing between 2009 and 2011, almost 86% were subsidiaries controlled by other enterprises; just over 10% were enterprise group heads; and just over 4% were standalone enterprises. See Figure 1 and Table 1.

Figure 1 International sourcing by enterprise group structure, 2009-2011



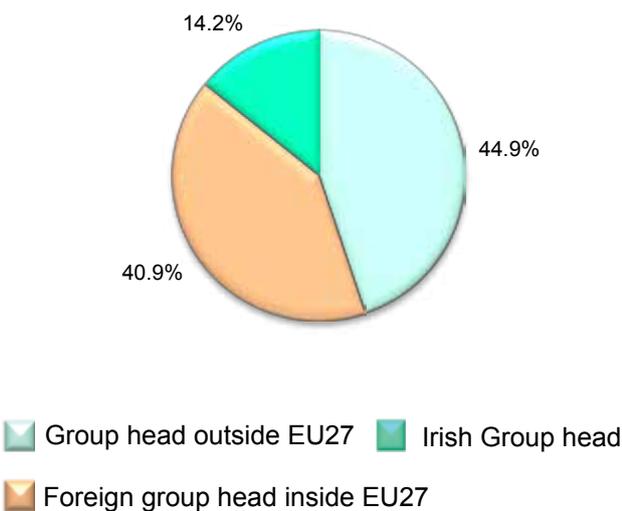
<sup>3</sup> These were based on generic business functions developed by Michael Porter of Harvard Business School.

<sup>4</sup> More detail on response rates and other survey information can be found in the background notes to the survey:

<http://www.cso.ie/shorturl.aspx/190>

Looking specifically at the subsidiaries who engaged in international sourcing between 2009 and 2011, almost 86% were controlled by group heads outside of Ireland. This consists of almost 45% with a group head outside of the EU27 and almost 41% with a group head inside the EU27. Therefore, of the 148 enterprises that sourced business functions abroad between 2009 and 2011, 109 enterprises were part of multinational enterprise groups with a foreign group head. See *Figure 2 and Table 1*.

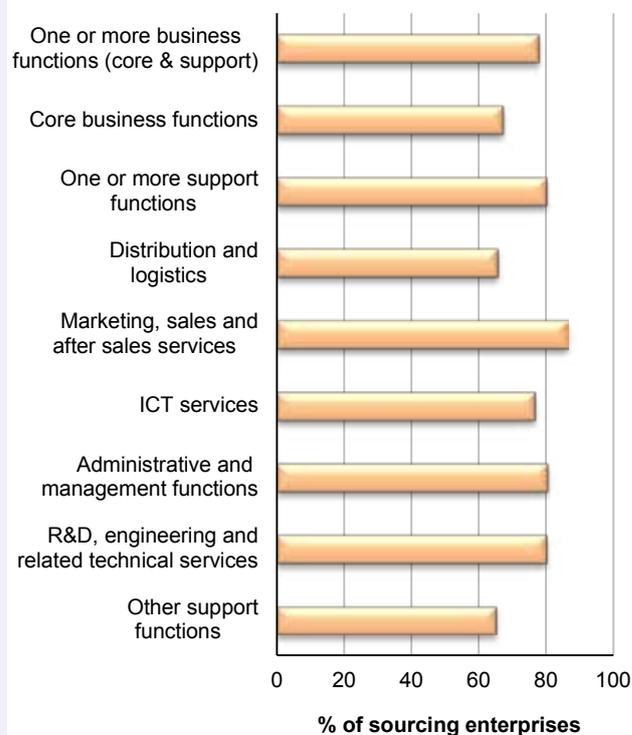
**Figure 2 Subsidiaries who sourced internationally by location of group head, 2009-2011**



Almost 78% of enterprises who engaged in international sourcing in Ireland tended to source business functions to enterprises within their enterprise group. This highlights that the nature of international sourcing in Ireland between 2009 and 2011 was largely based around foreign multinationals moving business functions abroad to other enterprises within their own enterprise group. The

CSO statistical release *International Sourcing Survey 2009-2011* has more information on the Irish results<sup>5</sup>. See *Figure 3*.

**Figure 3 International sourcing within the enterprise group, 2009-2011**



**Table 1 International sourcing by type of enterprise group structure, 2009-2011**

	Number of enterprises <sup>1</sup>			Percentage of enterprises engaged in international sourcing
	Engaged in international sourcing	Not engaged in international sourcing	All enterprises	
<b>In enterprise group</b>	143	662	805	17.8
Enterprise group head	15	111	126	11.9
Subsidiary	127	552	679	18.7
- Subsidiary with global group head in Ireland	18	182	200	9.0
- Subsidiary with global group head within EU27	52	179	231	22.5
- Subsidiary with global group head outside EU27	57	191	248	23.0
<b>Not in enterprise group</b>	6	448	454	1.3
<b>Total</b>	<b>148</b>	<b>1,111</b>	<b>1,259</b>	<b>11.8</b>

Source: International Sourcing Survey, 2009 to 2011

<sup>1</sup> The number of enterprises in this table were grossed to the population of enterprises using sector and size class.

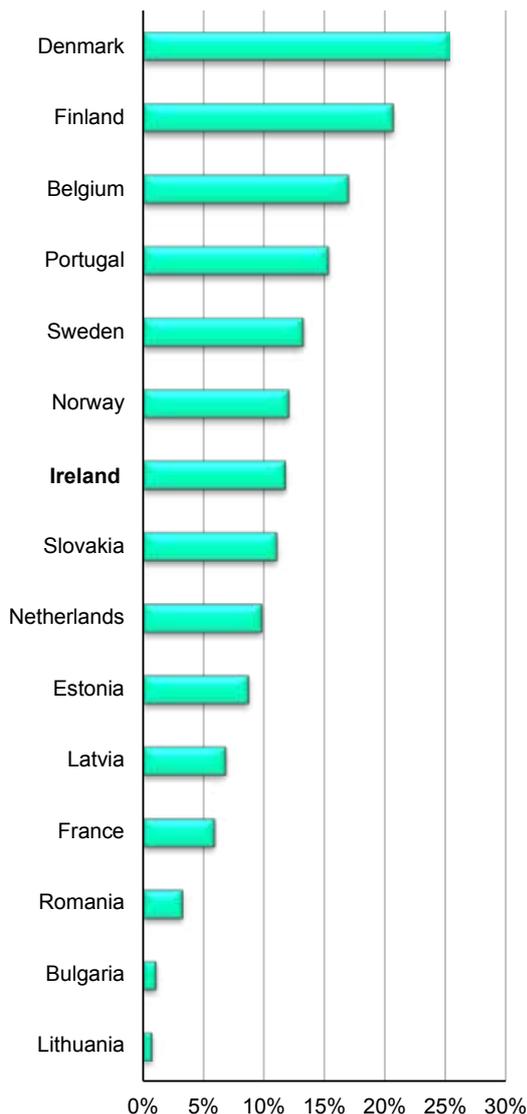
<sup>5</sup> Irish results for the International Sourcing Survey 2009-2011: <http://www.cso.ie/shorturl.aspx/190>

## European Comparisons

As already mentioned, the International Sourcing Survey 2009-2011 was a European initiative carried out in fifteen of the twenty seven Member States. The project was coordinated by Eurostat who published the European comparisons in a "Statistics Explained" article<sup>6</sup>.

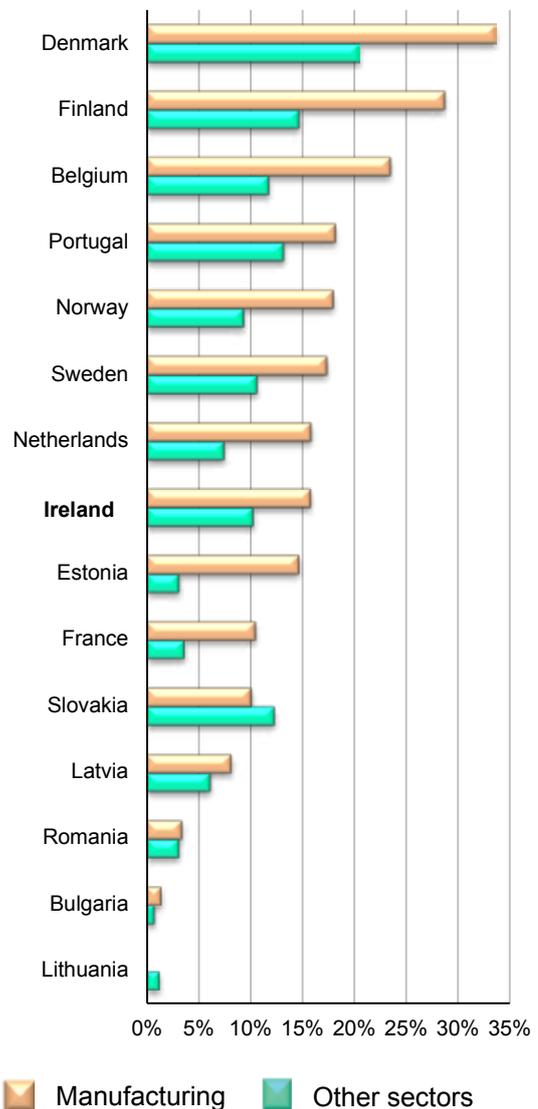
The article showed that the highest share of sourcing internationally was found in small, open economies with high labour costs. Using these international comparisons, it can be seen the Nordic countries of Denmark and Finland had the highest rates of international sourcing between 2009 and 2011 at over 25% and almost 21% respectively. Bulgaria and Lithuania had the lowest rates of international sourcing at approximately 1%. At almost 12%, Ireland had a similar international sourcing rate to both Norway and Slovakia. See Figure 4.

**Figure 4 Enterprises sourcing internationally by country, 2009-2011 (percentage of total enterprises)**



Enterprises in the Manufacturing sector had a higher rate of international sourcing in almost every country compared to enterprises in other sectors. Denmark has the most frequent incidence of international sourcing in Manufacturing (34% of all manufacturing enterprises with 100 or more persons employed), followed by Finland (29%) and Belgium (22%). In Ireland, almost 16% of large manufacturing enterprises engaged in international sourcing during 2009 to 2011 while the equivalent rate for enterprises in other sectors was just over 10%. See Figure 5.

**Figure 5 Enterprises sourcing internationally by sector and country, 2009-2011 (percentage of total enterprises)**



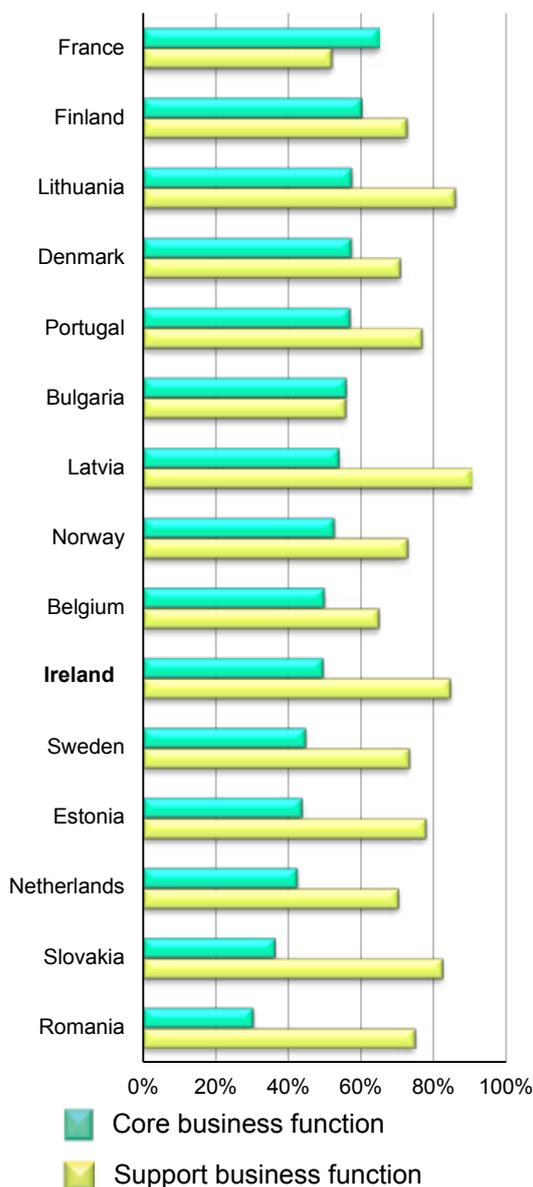
Enterprises were asked to divide their functions into core and support functions (service functions for internal use). International sourcing was originally a model used by Manufacturing enterprises to move their production abroad, however, the sourcing model has expanded to service functions and Services enterprises too.

<sup>6</sup> Eurostat "Statistics Explained" article is available from the following link: <http://www.cso.ie/shorturl.aspx/189>

In general, businesses more frequently source support functions than core functions. Around 60% to 90% of businesses that engaged in internationally sourcing said they had sourced support functions. In every country (with the exception of France), less than 60% of businesses who engaged in international sourcing said they sourced the core business function. Only in France was the core business function sourced more frequently than support business functions.

In Ireland, almost half of sourcing enterprises sourced the core business function while almost 85% of sourcing enterprises sourced support business functions. The importance of sourcing support functions is interesting given that most sourcing enterprises are in the Manufacturing sector. See Figure 6.

**Figure 6 Enterprises sourcing internationally by type of business function and country, 2009-2011 (percentage of sourcing enterprises)**



## The concept of micro data linking

Micro data linking is a technique used by researchers and statisticians whereby a common identifier is used to join datasets from different statistical or administrative sources. This allows values and characteristics that were not asked in a particular survey to be imported into the dataset of interest. The International Sourcing Survey 2009-2011 was designed with the knowledge that the survey would be followed closely by a micro data linking exercise that would enrich the information already collected on the survey form. The benefits of micro data linking are that new information can be derived from surveys or administrative data without increasing the burden on respondents.

The Sturgeon Report makes a number of recommendations for statistical offices to follow in order to promote the use of micro data linking. Some of these are as follows:

- ◆ Archive and maintain key micro-data resources
- ◆ Develop a system to identify and link enterprises across different datasets
- ◆ Move to a consistent use of statistical units i.e. the enterprise
- ◆ Coordinate sampling i.e. ensure a core group of enterprises are contained in all datasets for a particular time period

Another item could be added to this list also which is the promotion of a common business identifier across a wide range of public authorities. By using a common business identifier micro data linking could be more extensively used for the production of statistics both within in the CSO and across the public sector.

This article looks specifically at the second item in the list above which is the development of a system to identify and link enterprises across different datasets. The International Sourcing Survey 2009-2011 was used as a test case in order to try to meet this goal.

The CSO have a Data Protocol for how the CSO manages the combining of CSO and non-CSO data. The Protocol covers any work undertaken within the CSO to match the individual records contained in two or more data holdings, at least one of which originates outside the Office. For more information on the CSO Data Protocol, please see the CSO website<sup>7</sup>.

<sup>7</sup> CSO Data Protocol: <http://www.cso.ie/shorturl.aspx/193>

## Coordinated micro data linking project across European countries

The micro data linking project for the International Sourcing Survey is being coordinated by Eurostat, Statistics Denmark and CBS Netherlands. Ten of the fifteen countries that carried out the International Sourcing Survey are involved with the micro data linking exercise. One of the key aspects of the project is the testing of the centrally developed methodology for linking datasets and producing standardised outputs across a number of countries.

A second objective of the project is to produce new information on those enterprises that responded to the International Sourcing Survey 2009-2011. The output results from the micro data linking will be able to answer such research questions such as:

- ◆ What are the international trading patterns of those enterprises that engaged in international sourcing during the period 2009 to 2011?
- ◆ What is the impact of international sourcing on domestic employment, value added, labour productivity and international trade in goods?

The core dataset being used in the project are the respondents to the International Sourcing Survey 2009-2011. In the case of Ireland, there were 558 enterprises that completed the survey<sup>8</sup>. The CSO enterprise number (common identifier) was used to link these enterprises to the CSO Business Register (which is populated using administrative data mainly from the Revenue Commissioners), the CSO structural business surveys (Annual Services Inquiry, Census of Industrial Production and the Building & Construction Inquiry), External Trade data and Inward/Outward Foreign Affiliates Statistics<sup>9</sup>. Longitudinal linked files were created covering the years 2008 to 2011.

### Organising the project

The project was split into three phases. The first phase involved the construction of the linked micro data files. Standardised guidelines were produced by the project coordinators outlining in detail how the linked datasets in each country were to be structured. The micro data files were stored locally at the CSO throughout the project and were not shared with third parties. The Business Register is a key tool for linking datasets as this is the location where the CSO enterprise number is maintained, multinational group information is stored, samples for surveys are compiled and key characteristic data (such as NACE Rev. 2 activity) are kept consistent.

The second phase of the project involved carrying out validity controls on the linked files. Although each dataset being used in the project has already

undergone rigorous editing, there is still a need for further checks to ensure, for example, that the matched enterprises represent the same statistical units across different datasets. It is possible that the reporting unit used for a manufacturing enterprise on the Census of Industrial Production is not the same as the reporting unit it was matched to on the External Trade file. The validity controls were devised by the project coordinators and implemented locally by the CSO and the other statistical offices. More detail is provided on the validity controls in the section below.

The third phase of the project involves the production of standardised output across each country. The output tables include:

- a) descriptive analysis of sourcing enterprises compared to non-sourcing enterprises
- b) longitudinal analysis of sourcing enterprises compared to various control groups
- c) impact or regression analysis due to international sourcing e.g. impact on domestic employment due to international sourcing controlling for other factors.

Standardised SAS code was written by the project coordinators to ensure identical tables were produced in each country. Confidentiality checking was completed on the aggregated data locally in each statistical office.

### Problems encountered with micro data linking and corrective actions

The External Trade data, which is sourced from a combination of the Revenue Commissioners and Customs, does not use the enterprise number which is the common identifier for businesses used by the CSO. The External Trade data makes use of VAT numbers in order to record transactions for reporting units. Therefore, in order to link reporting units on the External Trade data to CSO business surveys, it was required to link the enterprise number to VAT numbers. Once the initial matching was complete, the validity controls compared the exports on the External Trade dataset with turnover on CSO structural business surveys for the matched enterprises. If exports were greater than turnover, then this may be an enterprise which was not matched correctly.

Generally, the matching exercise between the External Trade data and the CSO business surveys was successful. However, there were a small number of enterprises who are part of large multinationals where exports were greater than turnover indicating different reporting units on each dataset. These were examined on a case-by-case basis. In

<sup>8</sup> These respondents were used to gross to the results shown in Table 1.

<sup>9</sup> A special article was published in "Business in Ireland 2010" on the methodology for the compilation of Inward and Outward Foreign Affiliates Statistics. See the following link <http://www.cso.ie/shorturl.aspx/133>

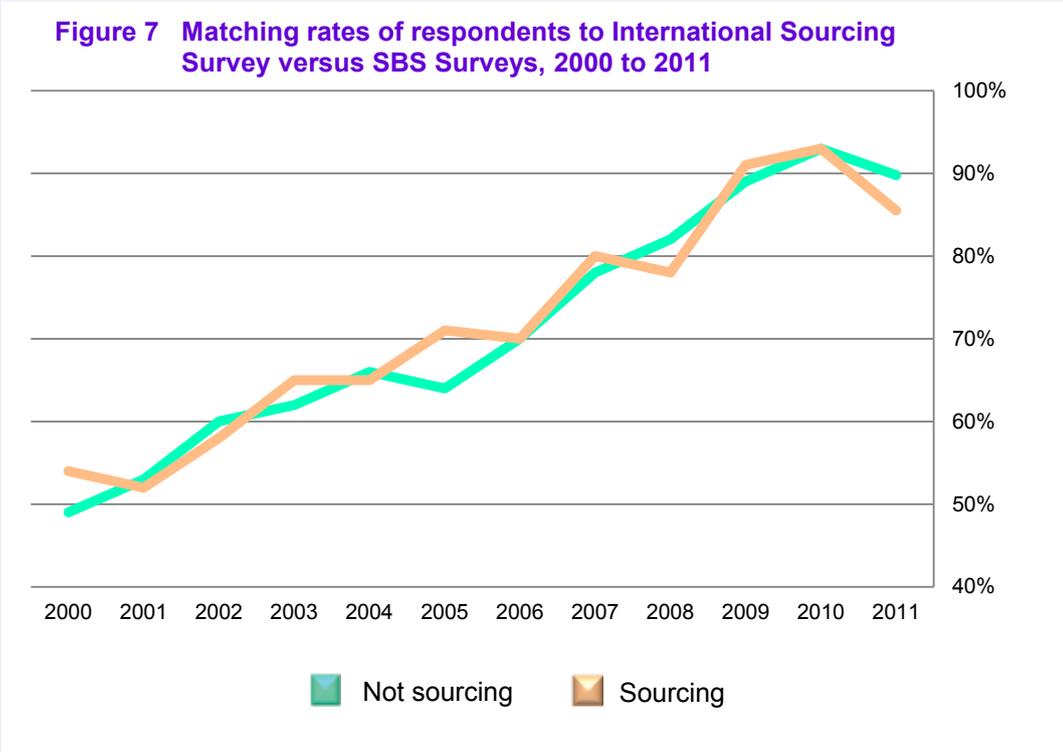
some examples, it was possible to consolidate data at the group level in order to ensure that the matched cases were comparable. The downside to this solution, however, is that the “enterprise” is the statistical unit that is under review and not the “multinational group”. Therefore, this was only a partial solution. In other examples, this solution was not enough to ensure comparable matches across datasets. In these cases, it was only possible to document the differences and ensure that the statistical outputs of the project were not affected.

**Matching rates across the various datasets**

There were high matching rates between the International Sourcing Survey and the structural business surveys. For reference year 2011, 89% of enterprises who responded to the International Sourcing Survey were matched with enterprises on one of the three structural business surveys. The matching rate in 2011 was 86% for enterprises that sourced business functions abroad between 2009 and 2011 and 90% for those that did not. As we move back through the reference years, the matching rates fall away. For the year 2000, the matching rates fell to 54% for sourcing enterprises and 49% for non-sourcing enterprises. The matching rates in the Manufacturing sector were generally higher than in the Services sector. See Figure 7.

The matching rates between the International Sourcing Survey and the External Trade data were also high. For reference year 2010, 88% of sourcing enterprises and 76% of non-sourcing enterprises were matched to reporting units on the External Trade dataset. The matching rates were particularly high for enterprises in the Manufacturing sector at 100% for sourcing enterprises and 98% for non-sourcing enterprises. If no match is found for an enterprise on the External Trade data, it is presumed that this enterprise did not engage in international trade and is entirely focused on the domestic market.

It should be noted that there was an attempt to match the enterprises on the International Sourcing Survey to the Outward Foreign Affiliates Survey. The matching rates were very low as the Outward Foreign Affiliates Survey focuses on Irish-owned multinationals with affiliates abroad. Very often, the reporting units for this survey are group heads or holding companies that do not necessarily meet the criteria for entry onto the Business Register sampling frame. The International Sourcing Survey used the Business Register sampling frame as the source of its sample of enterprises.



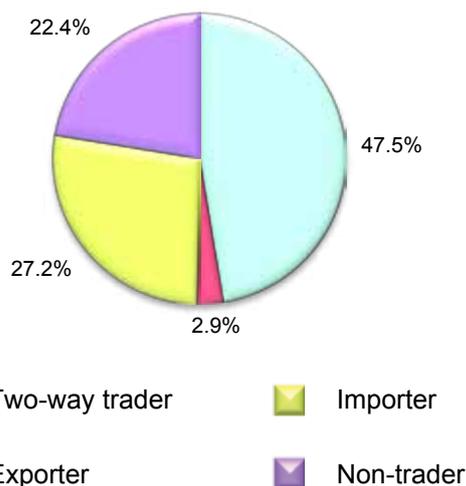
## Some initial results from the micro data linking project

We have already learned from the results of the International Sourcing Survey 2009-2011 that the nature of international sourcing in Ireland was largely based around foreign multinationals moving business functions abroad to other enterprises within their own enterprise group. By linking the micro data to other statistical domains we can extend our knowledge about international sourcing in Ireland.

Table 2 presents a descriptive analysis of the enterprises that responded to the International Sourcing Survey 2009-2011 using the systematic approach to micro-data linking outlined above. The information on international sourcing has been combined with exports and imports from the External Trade dataset and turnover, GVA, wages and employment from the structural business surveys. The enterprises have been categorised using the External Trade dataset into “two-way trader” (exporter and importer), “exporter only”, “importer only” and “non-trader” (no exports or imports).

Of the enterprises that responded to the International Sourcing Survey, 47.5% were “two-way traders”, while 27.2% of enterprises only imported and 2.9% of enterprises only exported. Just less than a quarter of enterprises at 22.4% neither exported nor imported<sup>10</sup>. See Figure 8.

**Figure 8 Enterprises that responded to the International Sourcing Survey by type of trader, 2011**



As would be expected, “two-way traders” were more likely to source business functions from abroad compared to the other categories. Of the 69 observations on the International Sourcing Survey that indicated that sourcing was carried out between 2009 and 2011, two-thirds were engaged in both importing and exporting. See Table 2.

It is interesting to look at some comparisons between sourcing and non-sourcing enterprises. Across all enterprises, the export intensity of turnover was similar in both groups with non-sourcing enterprises exporting 48% of turnover in 2011 while sourcing enterprises exported 53% of turnover. Differences emerge between the groups when wages per employee and GVA per employee are analysed. Wages per employee for non-sourcing enterprises were over €36,000 while for sourcing enterprises they were almost €50,000. GVA per employee (labour productivity) for non-sourcing enterprises was almost €75,000 while the figure was over double that amount for sourcing enterprises at over €163,000. See Table 2.

This is an indication that there are potential labour productivity gains to be exploited from engaging in international sourcing or, alternatively, more productive firms may decide to source internationally. However, in order to test the significance of the correlation between international sourcing and productivity, a full regression analysis would need to be carried out to control for other factors in this relationship. Murphy and Siedschlag (2013) analysed the previous survey on International Sourcing carried out by the CSO, which covered the period 2001 to 2006, and found that the likelihood of offshoring (or international sourcing) was positively associated with the size and labour productivity of the enterprise. This result tells us that there is a positive statistical correlation between international sourcing and productivity between 2001 and 2006 but does not tell us about the causal relationship involved.

Unusually, there were nine enterprises that sourced business functions internationally that were categorised to the “non-trader” category. If an enterprise sourced a business function from abroad, then it may be expected that these enterprises would subsequently import the good or service produced. There are a number of reasons why this may have happened; incorrectly linked datasets (i.e. false negative match), incorrectly completed international sourcing survey (indicated sourcing when that wasn’t the case), output of the international sourced business function had not yet been imported (i.e. timing issue) or the core business function was sourced abroad and the resulting goods/services were never repatriated back to the original enterprise. This is an example of how micro data linking can be used to quality check data by highlighting potential errors that otherwise would not have been found. See Table 2.

<sup>10</sup> If an enterprise on the International Sourcing Survey was not matched to an enterprise on the External Trade dataset, they were assigned to the “non-trader” category.

**Table 2 Key financial variables for enterprises that responded to the International Sourcing survey by type of trader, 2011**

Type of trader	Number of enterprises <sup>1</sup>	Exports	Imports	Turnover	GVA	Wages per employee	GVA per employee
<b>Two-way trader</b>	<b>265</b>	<b>27,702</b>	<b>11,106</b>	<b>46,583</b>	<b>11,209</b>	<b>43,486</b>	<b>112,054</b>
No int. sourcing	219	21,169	8,210	34,991	8,025	41,761	96,778
Int. Sourcing	46	6,533	2,896	11,592	3,185	51,840	186,044
<b>Exporter</b>	<b>16</b>	<b>170</b>	<b>0</b>	<b>775</b>	<b>105</b>	<b>33,055</b>	<b>53,391</b>
No int. sourcing	16	170	0	775	105	33,055	53,391
Int. Sourcing	0	0	0	0	0	0	0
<b>Importer</b>	<b>152</b>	<b>0</b>	<b>1,344</b>	<b>7,721</b>	<b>2,761</b>	<b>30,515</b>	<b>53,537</b>
No int. sourcing	138	0	1,212	7,195	2,598	29,921	53,419
Int. Sourcing	14	0	132	526	163	40,349	55,499
<b>Non-trader</b>	<b>125</b>	<b>0</b>	<b>0</b>	<b>1,924</b>	<b>910</b>	<b>29,544</b>	<b>46,772</b>
No int. sourcing	116	0	0	1,660	725	28,189	40,500
Int. Sourcing	9	0	0	264	185	45,045	118,524
<b>Total</b>	<b>558</b>	<b>27,873</b>	<b>12,451</b>	<b>57,003</b>	<b>14,985</b>	<b>37,933</b>	<b>86,605</b>
No int. sourcing	489	21,339	9,422	44,621	11,452	36,241	75,636
Int. Sourcing	69	6,533	3,028	12,382	3,533	49,787	163,424

Source: Micro data linking between International Sourcing Survey 2009-2011, External Trade data and Structural Business Surveys

<sup>1</sup> In contrast to Table 1, the number of enterprises in this table are the ungrossed responses to the International Sourcing Survey 2009-2011

## Conclusions and the road ahead

This article has outlined the key results from the International Sourcing Survey 2009-2011. Data from the Eurostat Statistics Explained article was presented in order to provide a context for the Irish results. In the participating European countries, international sourcing between 2009 and 2011 was generally most prevalent in Manufacturing enterprises. It was also found that sourcing of support business functions was more popular than sourcing of core business function. In the Irish context, international sourcing was largely based around foreign multinationals moving business functions abroad to other enterprises within their own enterprise group.

Secondly, the article detailed the structure and organisation of a coordinated micro data linking exercise that is currently ongoing between the CSO and its European partners. One of the main aims of the project is to test and implement a centrally developed micro data linking methodology. The lessons learned from the project will be fed back to the coordinators who will amend and refine the guidelines for micro data linking.

The benefits of micro data linking are that new information can be derived from surveys or administrative

data without increasing the burden on respondents. Some initial descriptive statistics from the micro data linking exercise in Ireland were presented. These descriptive statistics provided evidence that wages per employee and GVA per employee (labour productivity) in 2011 was far higher for enterprises that sourced business functions internationally between 2009 and 2011 compared to those that did not. This initial finding will be further explored in the future through the use of regression analysis which will control for other factors that may be influencing this relationship.

The micro data linking exercise for international sourcing will continue until the end of 2013. The project will produce further output in the form of descriptive statistics, longitudinal analysis and regression results. These will be presented as part of the coordinated output with our European partners.

Micro data linking within business statistics will be further developed in 2014 by extending the matching across statistical and administrative datasets to all enterprises in the business economy. The lessons learned through the work on the current project for international sourcing will inform the work going forward.

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## The Distribution sector in Ireland

Don Forde, CSO<sup>1</sup>

### Executive Summary

Business in Ireland 2011 has taken a thematic approach to examining data on the total business economy. This article will focus on the Distribution or Distributive Trade sector, which encompasses the wholesale trade, retail trade and motor trades sub-sectors. A variety of CSO survey data will be exploited to take a detailed look at the structure and performance of the Distribution sector. In contrast to the rest of the report this article will use longitudinal data from the Annual Services Inquiry to highlight trends over time. National Accounts data is used to indicate the Distribution sector's contribution to Gross Domestic Product (GDP) and Gross National Product (GNP). Short-term business statistics data are used to give a more up-to-date view of developments in the sector. Furthermore, data from Eurostat are utilised to examine the Distribution sector in the international context.

### Distribution – Business Demography

There were almost 43,000 active enterprises engaged in the Distribution sector in 2011, employing over 326,000 people. The largest sub-sector was Retail Trade (NACE 47) with over 55% of active enterprises and over 64% of persons engaged. Wholesale Trade (NACE 46) accounted for 29% of active enterprises and 27% of persons engaged while 15.9% of active enterprises were in the Motor Trades (NACE 45) sub-sector which accounted for just under 9% of persons engaged. See Figure 1.

**Figure 1 Share of active enterprises and persons engaged in Distribution, 2011**



Source: CSO Business Demography

### Distribution – National Accounts context

Gross Domestic Product (GDP)<sup>2</sup> and Gross National Product (GNP) are widely recognised and closely related measures of economic performance. GDP is calculated here as the aggregate of Gross Value Added (GVA)<sup>3</sup> at basic prices plus product taxes less product subsidies. It is not possible to give a breakdown of these product taxes and subsidies in terms of sectoral contribution but it is likely that the sectoral share of these taxes and subsidies is broadly similar to the sectoral share of national GVA.

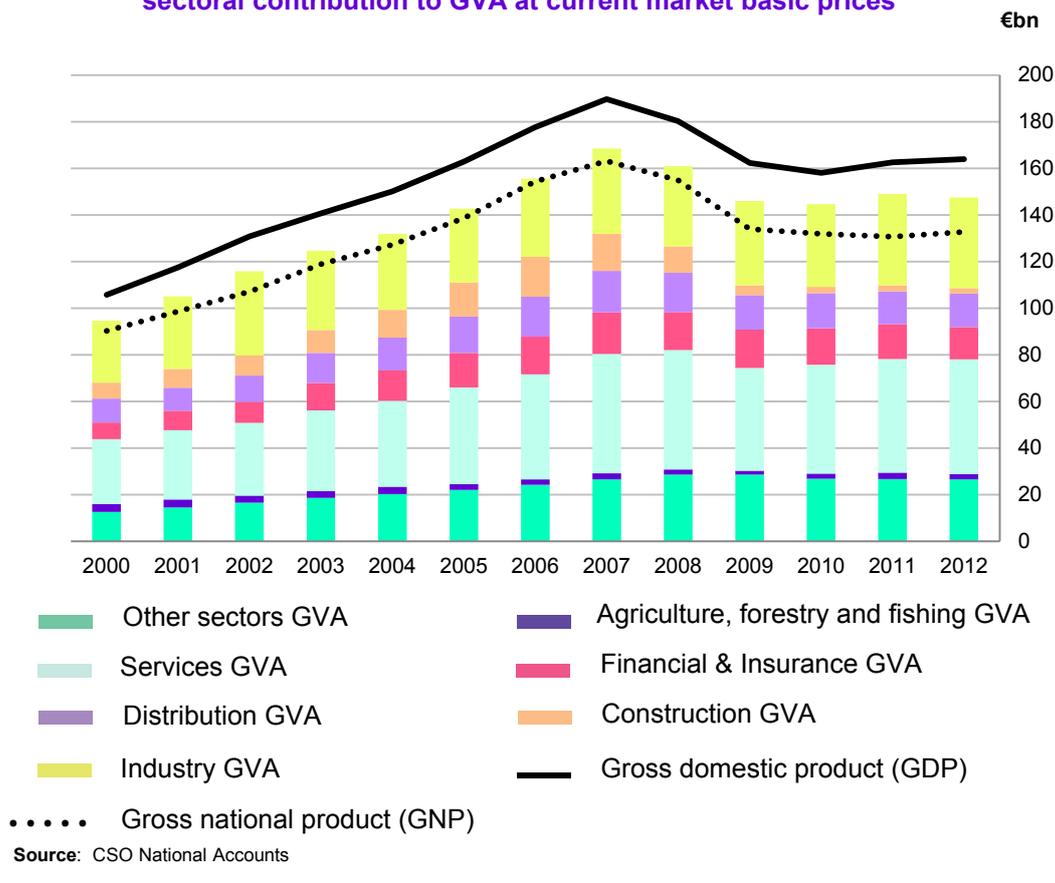
GDP increased from €117.5 billion in 2001 to €189.7 billion in 2007 before declining to €163.9 billion in 2012. Over the same period GVA grew from €105.9 billion in 2001 to €166.9 billion in 2007 and fell to €148.8 billion in 2012. In line with the rest of the economy, GVA in Distribution grew from €10.2 billion in 2001 to a peak of €17.7 billion in 2007 before dropping to €14.4 billion by 2012. See Figure 2.

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<sup>2</sup> Gross Domestic Product at current basic prices.

<sup>3</sup> Gross Value Added at current basic prices.

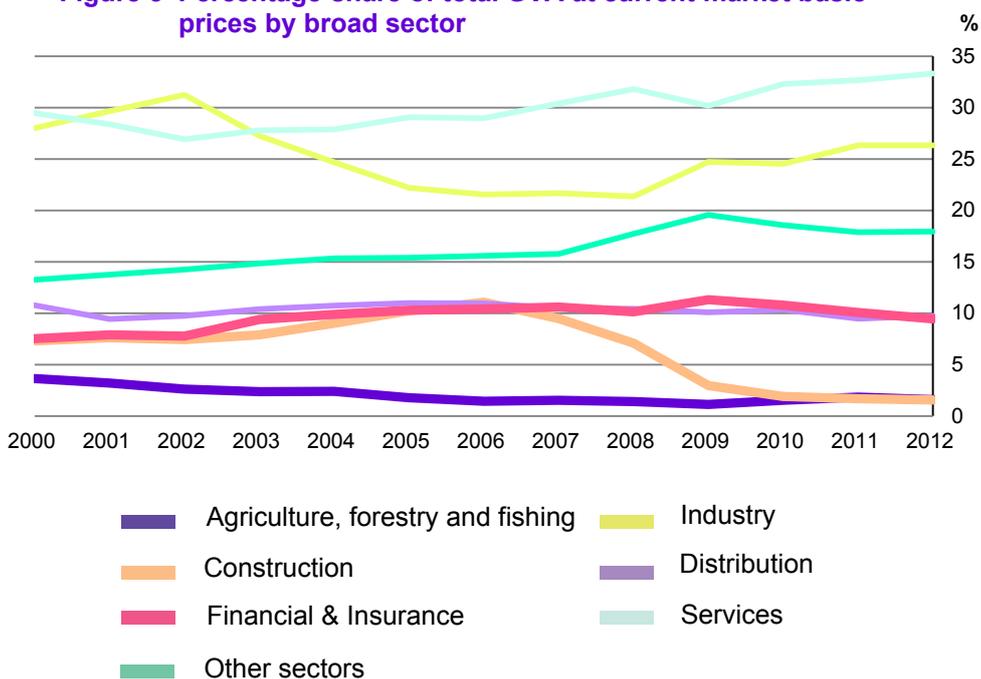
**Figure 2 Gross Domestic Product, Gross National Product and sectoral contribution to GVA at current market basic prices**



Looking at the sectoral contribution to GVA (at current market prices), it is noticeable that the Distribution sector share of total GVA in the national economy has been relatively stable over the past decade. The Distribution sector share of total GVA was at its lowest at 9.5% in 2001 and 2011, peaking at an 11% share in

2005 and 2006 and contributing a 9.8% share in 2012. The consistency of Distribution's share of GVA is in marked contrast to the Construction sector which saw its share of GVA increase from 7.6% in 2001 to 11.1% in 2006 before collapsing to just a 1.6% share in 2012. See Figure 3.

**Figure 3 Percentage share of total GVA at current market basic prices by broad sector**

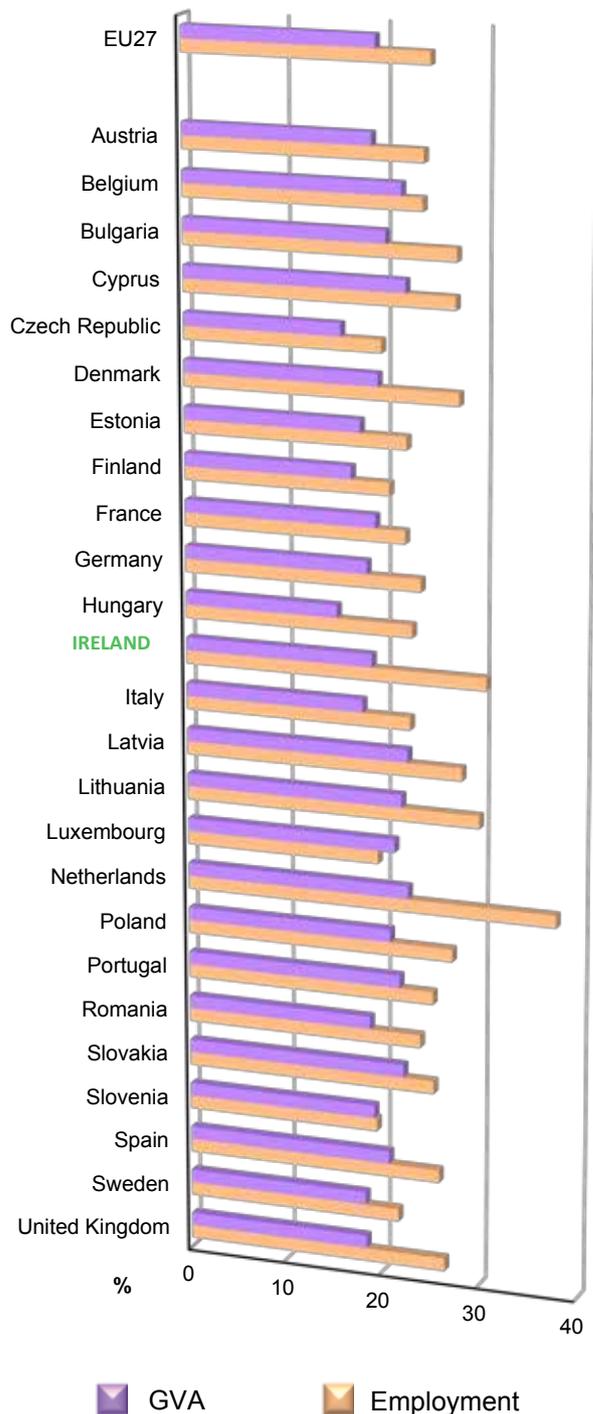


## International Comparisons

Most distributive trades (Section G) enterprises serve a local market and consequently this sector is characterised by a large number of enterprises. European comparisons published by Eurostat show that 6.2 million enterprises were classified to Distribution in the EU27 in 2010<sup>4</sup>, making it the largest enterprise population among any of the NACE sections within the non-financial business economy<sup>5</sup>. The total number of distributive trades enterprises in the EU27 amounted to more than a quarter (28.6 %) of all non-financial business economy enterprises.

In Ireland, Distribution comprised a larger share of the non-financial business economy in terms of persons employed than in the EU27<sup>6</sup> as a whole in 2010. The employment share held by Distribution ranged from 19.5 % in Slovenia to 37.6 % in The Netherlands. Distribution contributed a 30.5% share of employment in Ireland which was the second highest share in the EU. In terms of GVA, Distribution had the largest share of the non-financial business economy in The Netherlands and Latvia where it held a 22.7% and 22.6% share respectively. Distribution's share of GVA in Ireland at 19.0% was very close to the EU27 figure of 19.3%. See Figure 4.

**Figure 4 Percentage share of total GVA and employment in the non-financial business economy held by Distribution, 2010**



Source: CSO National Accounts

<sup>4</sup> <http://www.cso.ie/shorturl.aspx/200>

<sup>5</sup> NACE sections B to J and L to N and division 95.

<sup>6</sup> Data for Greece and Malta are not available.

## Distribution – Structural Business Statistics

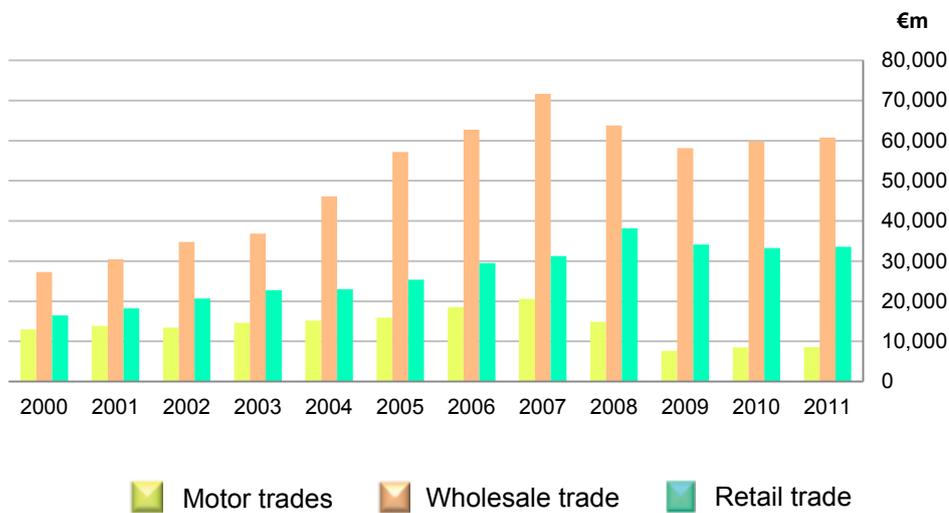
In examining developments in the Distribution sector over time, caution must be exercised with regard to changes in NACE classification from NACE Rev.1.1 to NACE Rev.2 which occurred in 2008. The Distribution sector was not as greatly affected as some other sectors by the NACE reclassification so the following charts combine NACE Rev.1.1 and NACE Rev.2 data<sup>7</sup>.

Turnover in Distribution grew from €56.7 billion in 2000 to a peak of €123.6 billion in 2007 and had fallen back to almost €103.0 billion in 2011. Wholesale Trade had a 48% share of turnover in 2000, followed by Retail with a

29% share and Motor Trade accounted for almost 23% of turnover. In 2011, the largest sub-sector was Wholesale Trade which held a 59% share of turnover at €60.8 billion. Retail Trade held a 33% share with turnover of €33.6 billion, with Motor Trade dropping to just over an 8% share with turnover of €8.6 billion. See Figure 5.

A broadly similar pattern is evident in Gross Value Added (GVA) where Wholesale Trade contributed the largest share for most years. In 2011 Wholesale Trade contributed a 52.3% share of GVA at just under €8 billion followed by Retail Trade with a 41.0% share at €6.2 billion and Motor Trade with a 6.6% share at €1.0 billion. See Figure 6.

Figure 5 Turnover in Distribution by broad sub-sector



Source: CSO Annual Services Inquiry

Figure 6 Gross Value Added in Distribution by broad sub-sector

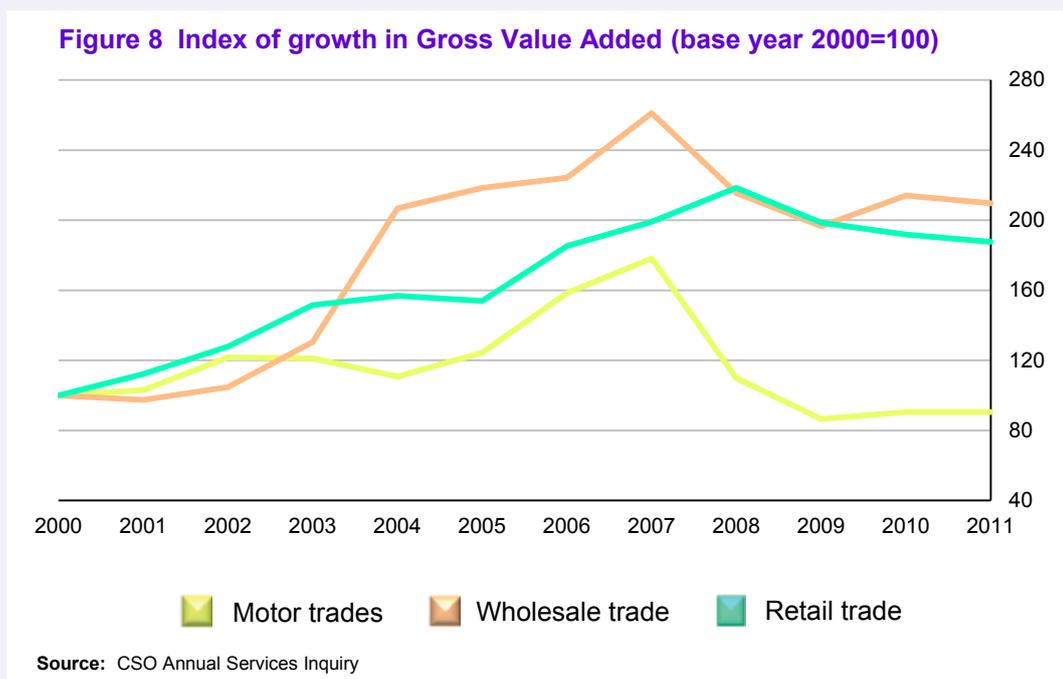
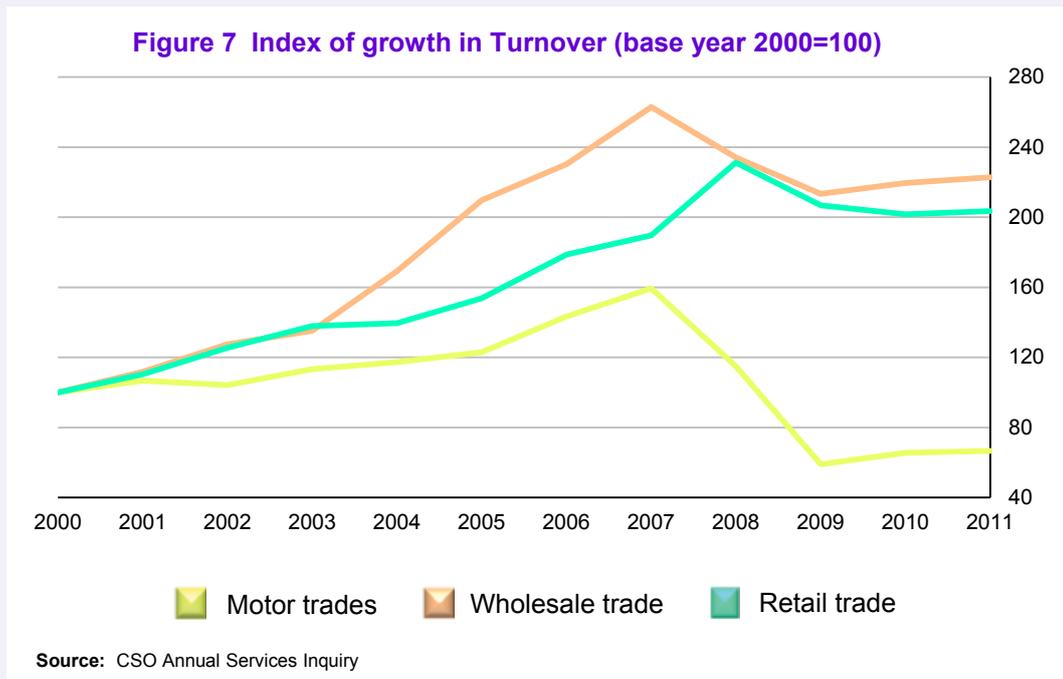


Source: CSO Annual Services Inquiry

<sup>7</sup> See technical notes.

Looking at the pattern of growth in turnover between 2000 and 2011, the Wholesale Trade sector grew more rapidly than the other sectors, with growth particularly strong between 2003 and 2007. The decline in turnover in Motor Trade from 2007 was much more pronounced than in either Retail Trade or Wholesale Trade. Unlike the other sectors, the Retail Trade sector continued to grow into 2008 and suffered a less severe decline in turnover. See Figure 7.

While the performance of all sectors of Distribution was adversely impacted by the economic downturn over recent years, Motor Trade appears to have suffered most. GVA in Motor Trade was halved from its peak of almost €2.0 billion in 2007 to €1.0 billion in 2011. Wholesale Trade also saw a decline in GVA of 19.7% from its peak of €9.9 billion in 2007 to €7.9 billion in 2011. GVA in Retail Trade was at its highest in 2008 at €7.2 billion and subsequently fell by 14.1% to €6.2 billion in 2011. See Figures 6 and 8.

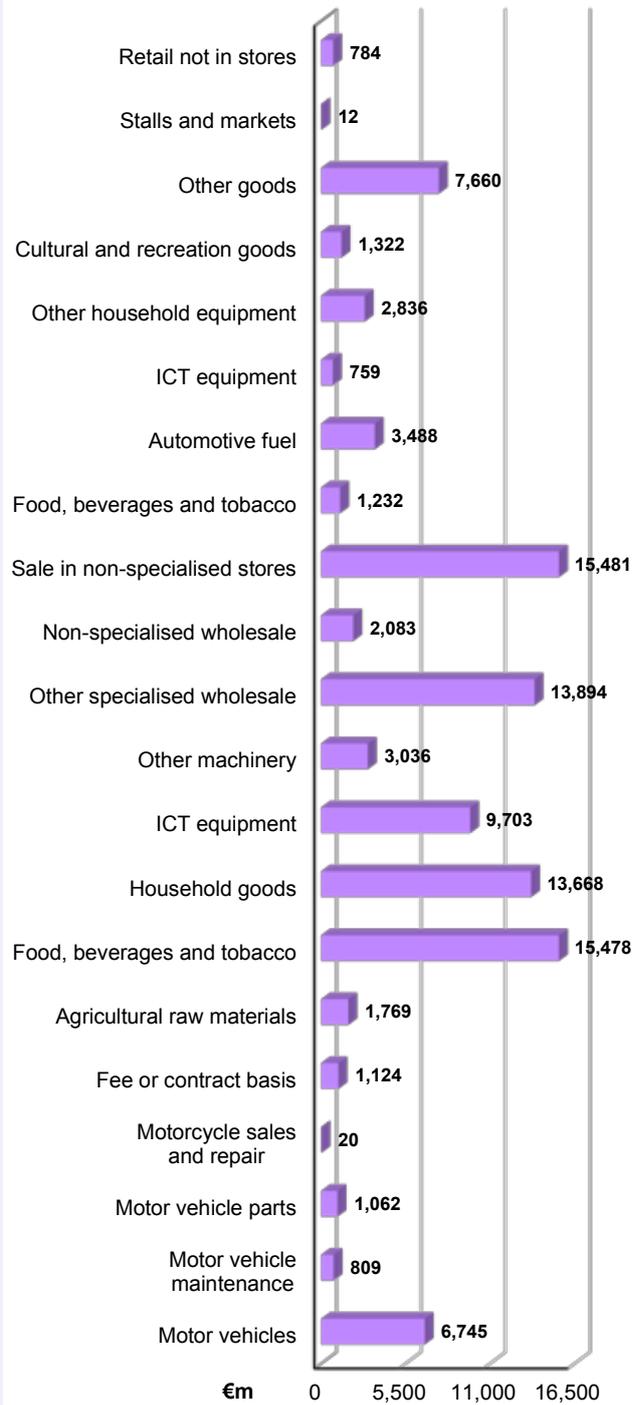


## Distribution – detailed sector

The Annual Services Inquiry allows a detailed sectoral analysis of the Distribution sector (for detailed descriptions of NACE 3-digit codes, see Table 3 in technical notes).

Data for 2011 showed that Retail sale in non-specialised stores (G471) and Wholesale of food, beverages and tobacco (G463) were the largest sectors in terms of turnover, both sectors accounting for turnover of just under €15.5 billion. Other specialised wholesale (G467) and Wholesale of household goods (G464) were the next largest 3-digit NACE divisions with turnover of almost €13.9 billion and €13.7 billion respectively. These four sectors together accounted for 56.8% of total turnover in Distribution. Retail sale via stalls and markets (G478) with turnover of €12.0 million and Sale, maintenance and repair of motorcycles, parts and accessories (G454) with turnover of €19.5 million were the smallest sectors in terms of turnover. See Figure 9.

Figure 9 Turnover by detailed sector, 2011



Source: CSO Annual Services Inquiry

See Table 3 for full description of detailed sectors

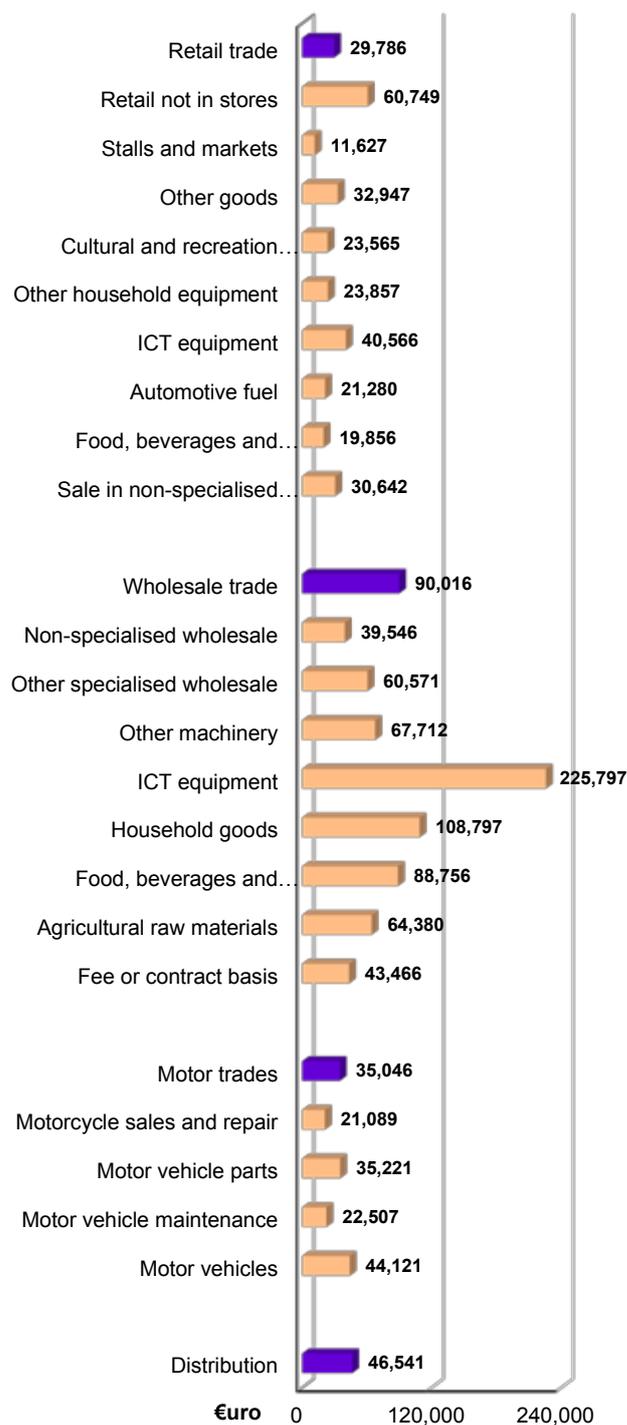
## Productivity

As seen in Chapter 2 of *Business in Ireland 2011*, GVA per person engaged can be used as a simple measure of labour productivity.

Using this measure, Wholesale of information and communication equipment (G465) was by far the most productive Distribution sector in 2011 with GVA per person engaged of €225,797. The next most productive sector was Wholesale of household goods (G464) with GVA per person engaged of €108,797, followed by Wholesale of food, beverages and tobacco (G463) with GVA of €88,756 per person engaged.

In examining productivity in Distribution, the relative size of the Wholesale and Retail sectors should be taken into consideration. In 2011, Retail Trade contributed the largest share of the Distribution sector workforce (64.2%). Wholesale Trade accounted for the highest share of GVA (52.3%) while accounting for just 27% of persons engaged. The relatively low levels of apparent labour productivity recorded for Retail Trade may, to some extent, be explained by a high incidence of part-time employment. See *Figure 10*.

**Figure 10 Gross value added per person engaged by detailed sector, 2011**



Source: CSO Annual Services Inquiry

See Table 3 for full description of detailed sectors

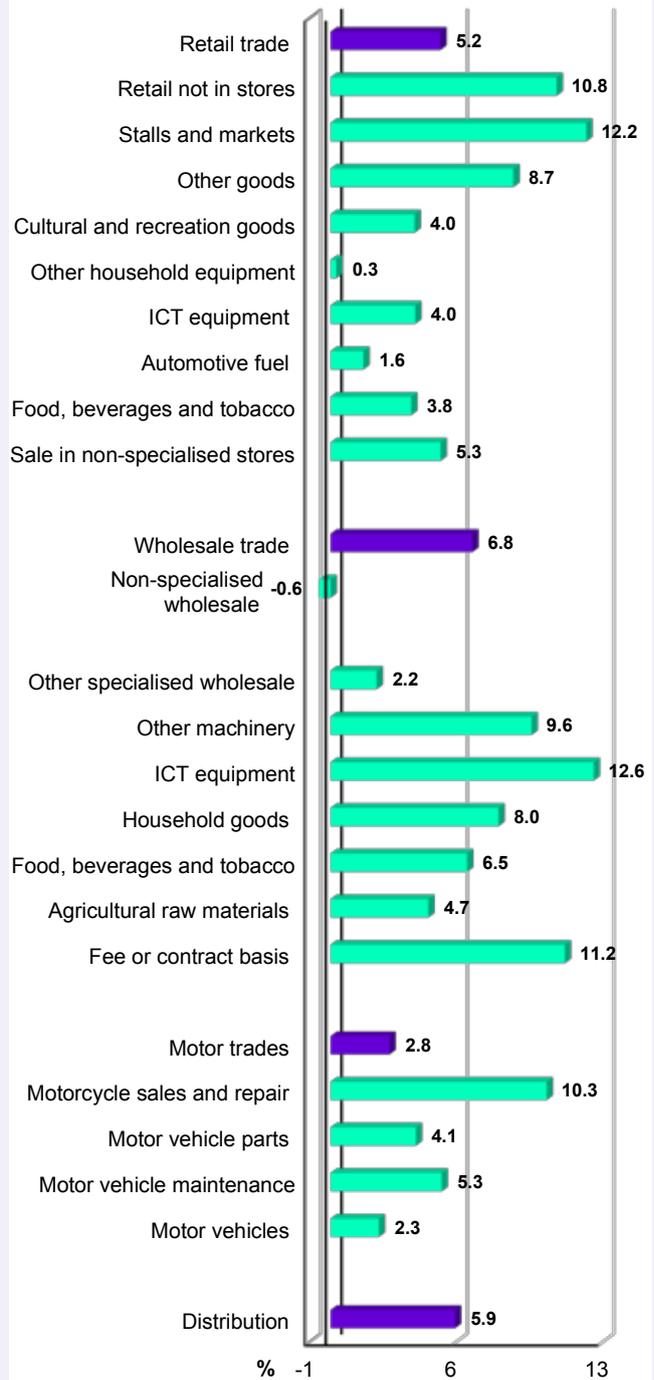
## Profitability

Gross operating surplus is the balance available to an enterprise which allows it to provide a return to shareholders, to pay taxes and to finance all or part of its investment. Gross operating surplus as a percentage of turnover can be used as a measure of profitability.

As noted in Chapter 2 of this report the Distribution sector recorded the lowest percentage among the broad sectors in the total business economy. Gross operating surplus in Distribution in 2011 was equal to 5.9% of turnover. The average percentage in the business economy was 15.5% of turnover in 2011. Gross operating surplus as a percentage of turnover for Wholesale Trade was 6.8% in 2011 while the figure was 5.2% for Retail Trade and 2.8% for Motor Trade.

Looking at gross operating surplus as a percentage of turnover for the detailed sectors within Distribution, the sectors which had the highest productivity also reported high profitability. Wholesale of information and communication equipment (G465) had the highest productivity in 2011 and also the highest profitability. Wholesale of household goods (G464) had the second highest productivity and also had above average profitability for the sector. Some sectors such as Retail sale via stalls and markets (G478) and Sale and repair of motorcycles (G454) had high levels of profitability but had negligible impact on the overall sector because of their small size. See Figure 11.

**Figure 11 Gross operating surplus as a percentage of turnover by detailed sector, 2011**



Source: CSO Annual Services Inquiry

See Table 3 for full description of detailed sectors

## Size class breakdown of enterprises in Distribution

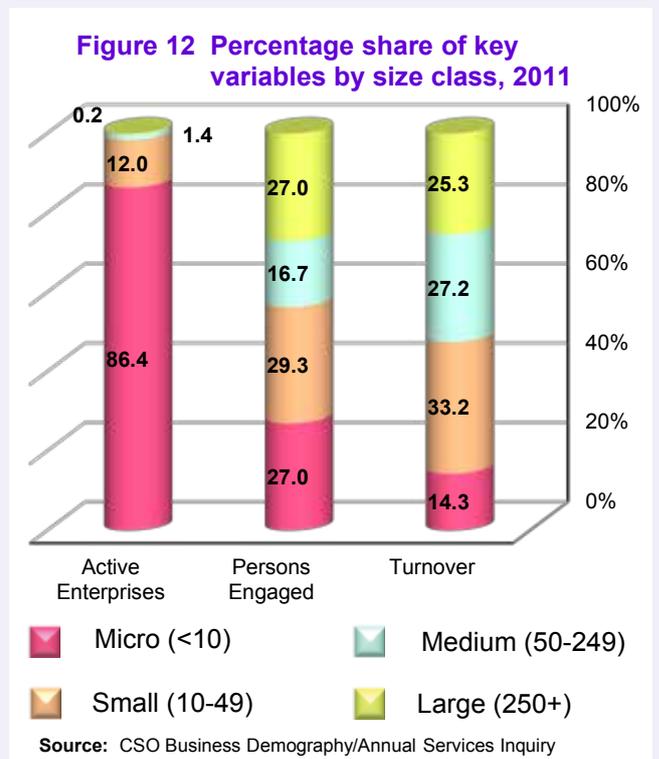
In 2011, small and medium enterprises<sup>8</sup> (SMEs) accounted for 99.8% of the 43,000 active Distribution enterprises. While large enterprises accounted for just 0.2% of active enterprises in Distribution, they employed 27.0% of total persons engaged. Examining SMEs in more detail reveals that micro enterprises, with less than 10 persons engaged also accounted for 27.0% of employment. Small enterprises had a 29.3% share of employment and medium enterprises had a 16.7% share giving SMEs a 73% share of persons engaged<sup>9</sup>. See Figure 12.

Micro enterprises, which accounted for over 86% of all active Distribution enterprises in 2011, accounted for just 14.3% of total turnover. In contrast, large enterprises made up just 0.2% of all active enterprises but had a 25.3% share of total turnover. See Figure 12.

## Short-term indicators of business activity in Distribution

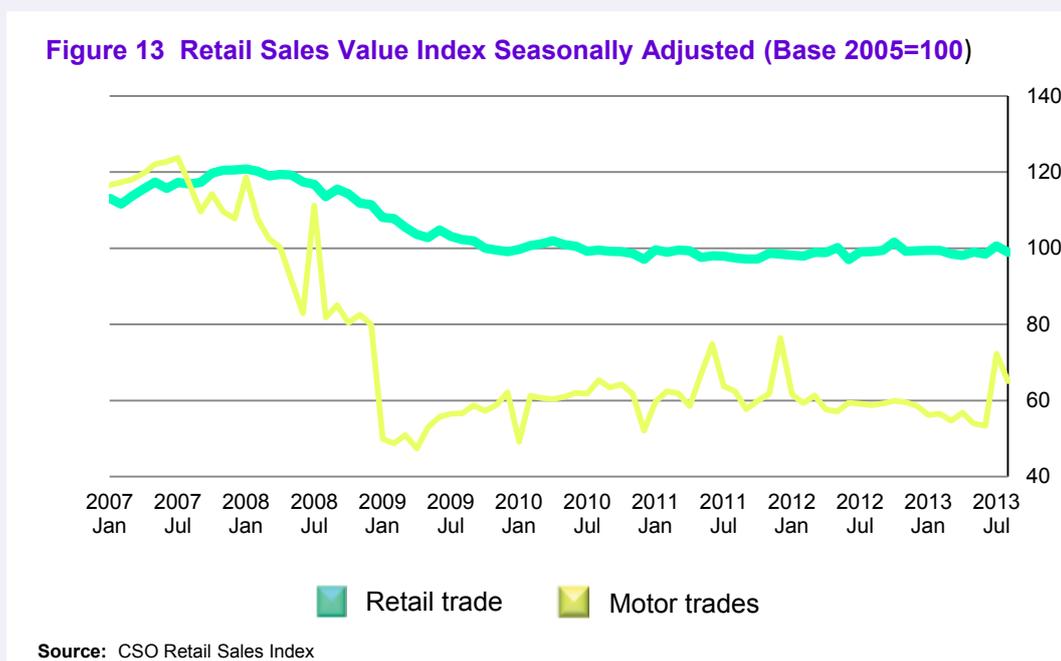
The data that have been examined so far have been sourced from Business Demography, National Accounts and the annual structural business surveys. For a more up-to-date indication of trends in the Distribution sector it is possible to use data taken from a short-term survey. The Retail Sales Index (RSI) is the official short-term indicator of changes in the level of consumer spending on retail goods, measuring the trend in the level of average weekly sales for each month. Wholesale Trade is not covered by the RSI.

Retail Sales for Motor Trades (seasonally adjusted) increased by almost 24% between 2005 and July 2007. The value of sales then declined steadily, falling by over 61% by April 2009. The value of sales in Motor Trades subsequently increased, slowly rising more than 12%



by June 2013. The sharp increase seen in July 2013 may be attributable to increased sales in that month due to the introduction of the split year licencing arrangements.

The value of sales for Retail Trade, excluding motor trades and bars, was broadly higher in 2008 than in 2007, decreasing through 2009 and 2010 before subsequently stabilising. The trends in the RSI for Retail Trade and Motor Trade reiterate the patterns that were observed in the Annual Services Inquiry turnover data which was examined earlier in Figure 5. The indication from the RSI data is that little improvement can be expected in the Annual Services turnover for these sectors through 2012 and 2013. See Figure 13.



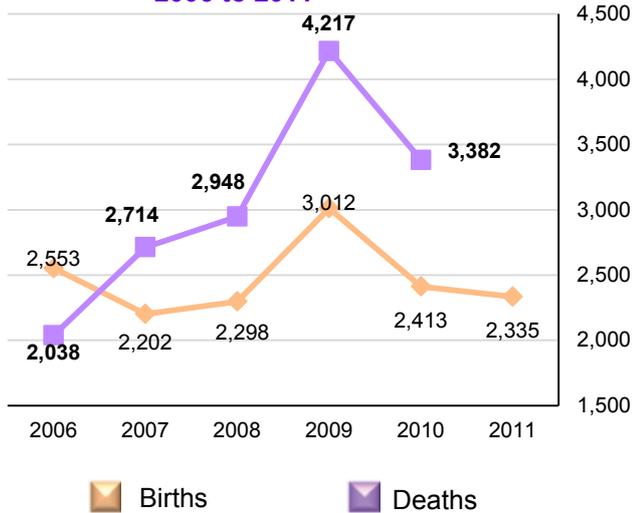
<sup>8</sup> SMEs: enterprises with less than 250 persons engaged; Large: enterprises with 250 or more persons engaged.

<sup>9</sup> See technical notes for detailed size class.

## Enterprise births, survivals and deaths in Distribution

The number of enterprise births in Distribution between 2006 and 2011 has remained relatively static but the number of enterprise deaths in this period increased steadily up to 2009 with a drop in the number of enterprise deaths in 2010. In 2006 enterprise births in Distribution exceeded deaths by 515 but by 2010 the situation had reversed and enterprise deaths exceeded births by 969. See Figure 14.

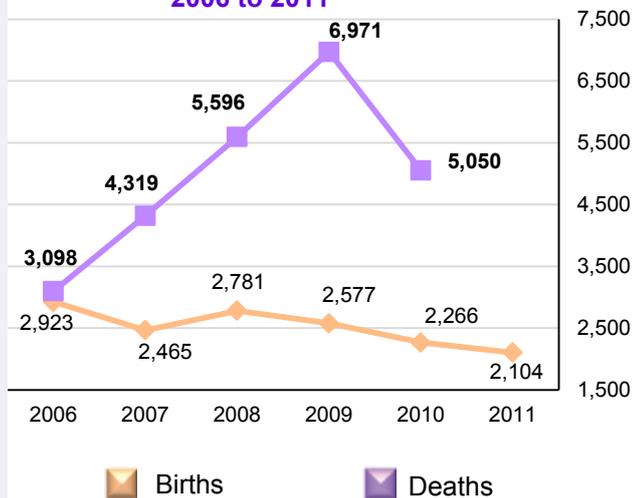
**Figure 14 Number of births and deaths of enterprises in Distribution by year, 2006 to 2011**



Source: CSO Business Demography

The number of persons engaged in newly birthed Distribution enterprises was 2,923 in 2006. By 2011 the number of persons engaged in newly birthed enterprises had fallen slightly to 2,104. Over the same period, employment losses as a result of enterprise deaths rose from 3,098 in 2006 to 5,050 in 2010. See Figure 15.

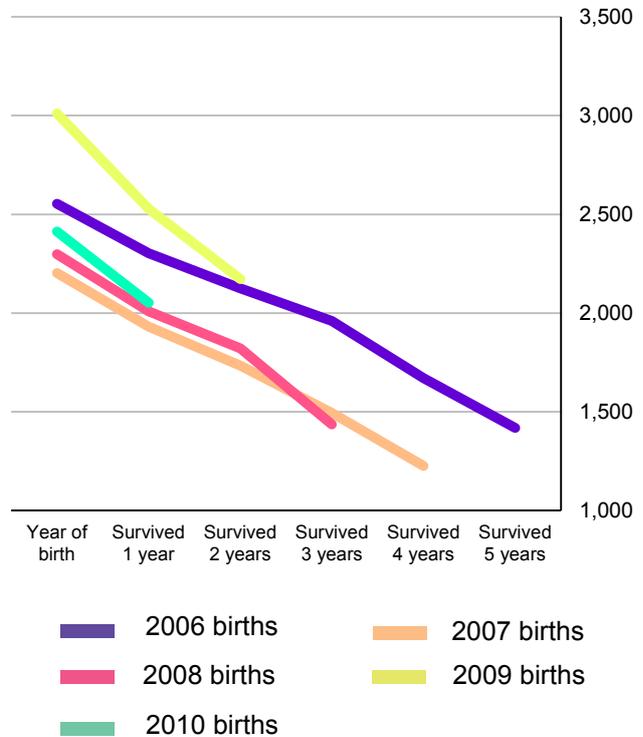
**Figure 15 Number of persons engaged in enterprise births and enterprise deaths in Distribution by year, 2006 to 2011**



Source: CSO Business Demography

There were 2,553 new Distribution enterprises birthed in 2006. Of these 90.2% survived one year in business; 83.2% survived 2 years in business; 76.8% survived 3 years in business; 65.4% survived 4 years in business while 55.5%, or 1,418 of the original 2,553 had survived after 5 years in business. See Figure 16.

**Figure 16 Number of enterprise survivals in Distribution by year, 2006 to 2010**



Source: CSO Business Demography

## Conclusion

This article has shown how data from a wide range of CSO surveys can be used to examine the size, structure and business operations of the Distribution sector in Ireland. The article has shown the size, productivity and profitability of the Distribution sector and its component parts and has shown how the sector has performed over a number of years. While this article has focused on the Distribution sector, a similar analysis could be applied to any other sector of the Irish business economy.

## Technical Notes

### Coverage

Distributive trades are organised into three NACE divisions:

- ◆ Division 45 covers wholesaling and retailing of motor vehicles and motorcycles, as well as their repair;
- ◆ Division 46 covers all wholesale trade other than wholesaling of motor vehicles and motorcycles;
- ◆ Division 47 covers all retail trade other than retailing of motor vehicles and motorcycles.

Wholesale trade is the resale of new and used goods to retailers, to industrial, commercial, institutional or professional users, or to other wholesalers. Equally, it includes acting as an agent or broker in buying merchandise for, or selling merchandise to, such persons or enterprises.

Retailing is the resale of new and used goods mainly to the general public for personal or household consumption or use.

### Gross Domestic Product (GDP) and Gross National Product (GNP)

GDP measures the total output of the economy in a period i.e. the value of work done by employees, companies and self-employed persons. This work generates income but not all of the income earned in the economy remains the property of residents (and residents may earn some income abroad). The total income remaining with Irish residents is GNP and it differs from GDP by the net amount of income sent to or received from abroad.

## Employment size class

The main size classes used in this article for presenting the results are:

- ◆ small and medium-sized enterprises (SMEs): with 1 to 249 persons engaged, further divided into;
  - micro enterprises: with less than 10 persons engaged;
  - small enterprises: with 10 to 49 persons engaged;
  - medium-sized enterprises: with 50 to 249 persons engaged;
- ◆ large enterprises: with 250 or more persons engaged.

## NACE classification

In looking at detailed breakdowns of the Distribution sector over time, a number of difficulties are encountered. First, the change in classification between NACE Rev.1.1 and NACE Rev.2 means that it is not feasible to produce a time series at the most detailed 4-digit NACE level. Second, breakdowns at detailed 4-digit NACE level are often unavailable because of confidentiality or reliability issues. For these reasons 3-digit NACE is the lowest level of NACE classification that this article examined, with a particular focus on 2011. The classification used for years 2008-2011 was NACE Rev.2. Prior to 2008 NACE Rev.1.1 was the classification used.

**Table 1 NACE codes and descriptions for broad sectors**

NACE REV.2 section	NACE REV.2 division	Description
A	01-03	Agriculture, forestry and fishing
B-E	05-39	Industry
F	41-43	Construction
G	45-47	Distribution
K	64-66	Financial & Insurance
H-J,L-M,R-S	49-63,68-82,90-96	Services
O,P,Q,T,U	84-88,97-99	Other sectors

**Table 2 NACE codes and descriptions for NACE sectors**

NACE REV.2 section	NACE REV.2 division	Description
A	01-03	Agriculture, forestry and fishing
B	05-09	Mining and quarrying
C	10-33	Manufacturing
D	35	Electricity, gas, steam and air-conditioning supply
E	36-39	Water Supply; sewerage, waste management and remediation activities
F	41-43	Construction
G	45-47	Wholesale and retail trade, repair of motor vehicles and motorcycles
H	49-53	Transportation and storage
I	55-56	Accommodation and food services activities
J	58-63	Information and Communications
K	64-66	Financial and insurance activities
L	68	Real estate activities
M	69-75	Professional, scientific and technical activities
N	77-82	Administrative and support service activities
O	84	Public administration and defence; compulsory social security
P	85	Education
Q	86	Human health and social work activities
R	90-93	Arts, entertainment and recreation
S	94-96	Other service activities
T	97-98	Activities of households as employers; undifferentiated goods and services production of private households for own use
U	99	Activities of extra-territorial organisations and bodies

**Table 3 NACE Rev.2 codes and descriptors**

NACE Rev.2	Description
<b>G45</b>	<b>Motor trades</b>
G451	Sale of motor vehicles
G452	Maintenance and repair of motor vehicles
G453	Sale of motor vehicle parts and accessories
G454	Sale, maintenance and repair of motorcycles, parts and accessories
<b>G46</b>	<b>Wholesale trade</b>
G461	Wholesale on a fee or contract basis
G462	Wholesale of agricultural raw materials and live animals
G463	Wholesale of food, beverages and tobacco
G464	Wholesale of household goods
G465	Wholesale of information and communication equipment
G466	Wholesale of other machinery, equipment and supplies
G467	Other specialised wholesale
G469	Non-specialised wholesale trade
<b>G47</b>	<b>Retail trade</b>
G471	Retail sale in non-specialised stores
G472	Retail sale of food, beverages and tobacco in specialised stores
G473	Retail sale of automotive fuel in specialised stores
G474	Retail sale of information and communication equipment in specialised stores
G475	Retail sale of other household equipment in specialised stores
G476	Retail sale of cultural and recreation goods in specialised stores
G477	Retail sale of other goods in specialised stores
G478	Retail sale via stalls and markets
G479	Retail trade not in stores, stalls or markets

## References

Business Demography: <http://www.cso.ie/shorturl.aspx/194>

National Accounts: <http://www.cso.ie/shorturl.aspx/195>

Annual Service Inquiry and Retail Sales Index: <http://www.cso.ie/shorturl.aspx/196>

NACE Rev.2 codes and descriptions: <http://www.cso.ie/shorturl.aspx/197>

International comparisons:

<http://www.cso.ie/shorturl.aspx/198>

<http://www.cso.ie/shorturl.aspx/200>



**Table A1.1 Data sources for Table 2.1**

	Industry	Construction	Distribution	Services (ex. Fin)	Financial & Insurance Activities
<b><u>Business Demography</u></b>	CSO Central Business Register	CSO Central Business Register	CSO Central Business Register	CSO Central Business Register	CSO Central Business Register
<b><u>Business Operations</u></b>	Census of Industrial Production (CIP)	Building and Construction Inquiry (BCI)	Annual Services Inquiry (ASI)	Annual Services Inquiry (ASI)	CSO/Central Bank survey of credit institutions (CRS1) CSO Balance of Payments surveys of insurance corporations (BOP42/43)

### Business Demography

The data for Business Demography are based on the CSO Central Business Register. The Business Register is a register of all enterprises that are active in the State. There is no lower size limit, but for practical reasons, Business Demography data are based on enterprises that are registered with the Revenue Commissioners. New businesses are identified by VAT, Employer, Corporation Tax or Income Tax registrations.

Business Demography figures are based purely on administrative data. This results in some differences with survey-based Structural Business Statistics releases, like the Census of Industrial Production (CIP), Building & Construction Inquiry (BCI), and Annual Services Inquiry (ASI).

- Administrative data sources allow better coverage of small enterprises.
- Administrative data counts active Revenue registrations as active enterprises. This generally corresponds with the definition of an enterprise in survey areas, but there can be some differences, especially in enterprise groups.
- Business Demography compiles employment data based on P35 employer returns, while other Structural Business Statistics releases measure employment based on survey returns. This is particularly significant for enterprise groups, where the whole group may make one P35 return, which results in all its employees being counted against the overall enterprise group NACE code. Survey based releases may divide this employment across

different enterprises, and therefore different NACE codes.

### Census of Industrial Production (CIP)

Census of Industrial Production (CIP)

The Census of Industrial Production (CIP) covers all enterprises which have three or more persons engaged and which are wholly or principally involved in industrial production. This survey is carried out on an annual basis. Administrative data are used for some micro enterprises which are not surveyed as well as non-respondents across all case sizes.

The scope of the Census extends to NACE Rev. 2 sections B, C, D and E, namely:

Section B: Mining & Quarrying

Section C: Manufacturing

Section D: Electricity, Gas, Steam & Air Conditioning Supply

Section E: Water Supply; Sewerage, Waste Management & Remediation Activities

### Building & Construction Inquiry (BCI)

The Building & Construction Inquiry (BCI) was introduced in 2009 for reference year 2008 onwards and replaced the Census of Building and Construction (CBC). The CBC covered all private firms with 20 or more persons engaged whose main activity was building, construction or civil engineering (ie Section F of NACE Rev.2). The BCI extended this coverage to also include a sample of private firms with less than 20 persons engaged.

The Business Register is used as the sampling frame for the BCI from which grossed estimates are produced.

### **Annual Services Inquiry (ASI)**

The Annual Services Inquiry has been conducted as an annual survey of both distributive and non-distributive services since 1991. All enterprises with one or more persons engaged are included. Units with one person engaged are not surveyed; the data for those are imputed directly from administrative sources.

The survey covers all enterprises in the Retail, Wholesale, Transport & Storage, Accommodation & Food, Information & Communication, Real Estate, Professional, Scientific & Technical Activities, Administrative & Support Activities and Other Selected Services sectors (NACE Rev.2 sectors G, H, I, J, L, M, N, R and S). Enterprises that traded for at least 6 months in the reference year are included in the survey.

Since 1995 the CSO's Central Business Register provides the sampling frame, from which the Annual Services Inquiry sample is selected each year. The ASI is designed to provide grossed estimates of the principal trading aggregates for all enterprises in the relevant sectors.

### **Surveys of Credit Institutions and Insurance Corporations**

Accounting data on credit institutions was taken from the joint CSO/Central Bank survey of credit institutions (CRS1). Accounting data on insurance corporations was taken from CSO Balance of Payments (BOP) surveys of insurance corporations (BOP42 and BOP43). These are quarterly surveys that form part of the wider data collection in the area of BOP. The credit institutions data are collected by the Central Bank and supplied to the CSO for statistical compilation purposes. The insurance data are collected by the CSO directly.

There are differences in the coverage of the Business Operations data (credit institutions and insurance companies) and the Business Demography data (all financial companies on the CSO Business Register excluding financial holding companies) in Table 2.1 for the Financial & Insurance Activities sector – NACE Section K (excluding K642). The main Financial sectors excluded from the Business Operations analysis are Other Financial Service Activities except Insurance & Pension Funding (K649) and Activities Auxiliary to Financial Services & Insurance Activities (K66).

### Active enterprises

The population of active enterprises contains all enterprises that were active at some point during the reference year. Enterprises are counted as active if they satisfy at least one of the conditions below:

- ◆ Pay VAT
- ◆ Have employees
- ◆ File a Corporation Tax return
- ◆ File an Income Tax return with turnover of over €50,000

### Enterprise Births

An enterprise birth amounts to the creation of a combination of production factors with the restriction that no other enterprises are involved in the event. Births do not include entries into the population due to mergers, break-ups, split-off or restructuring of a set of enterprises. It does not include entries into a sub-population resulting only from a change of activity.

A birth occurs when an enterprise starts up and begins trading. An enterprise creation can be considered an enterprise birth if new production factors, in particular new jobs, are created. If a dormant unit is reactivated within two years, this event is not considered a birth.

The population of enterprise births in 2011 contains all enterprises that started at some stage during the year 2011.

### Enterprise Deaths

An enterprise death amounts to the dissolution of a combination of production factors with the restriction that no other enterprises are involved in the event. Deaths do not include exits from the population due to mergers, takeovers, break-ups or restructuring of a set of enterprises. It does not include exits from a sub-population resulting only from a change of activity.

Preliminary enterprise deaths are those enterprises that are active during the reference year but not in the following year. Final enterprise deaths are those enterprises that are active during the reference year but not in either of the next two subsequent years.

The population of enterprise deaths in 2010 contains all enterprises that ceased at some point during the year 2010.

### Persons engaged

Persons engaged include employees, proprietors and family members.

Employees are persons who are paid a fixed wage or salary. Persons at work or temporarily absent because of illness, holidays, strike etc are included. Persons working on a labour-only subcontract basis are excluded with the exception of Irish Construction data.

Proprietors and family members; included here are those proprietors, partners etc and members of their families who work regularly in the firm and are not paid a definite wage or salary.

### Turnover

Turnover comprises the totals invoiced by the enterprise during the reference period and this corresponds to market sales of goods or services supplied to third parties. The sale of goods includes the goods produced by the enterprise as well as the merchandise purchased by a retailer or land and other property held for resale (if land and other property were initially purchased for investment purposes they should not be included in turnover). The rendering of services typically involves the performance by the enterprise of a contractually agreed task over an agreed period of time. The revenue of long-term contracts (eg building contracts) should be recognised by reference to the stage of completion of the contract and not the finished contract method. Goods produced for own consumption or investment should be excluded from turnover.

Turnover includes all duties and taxes on the goods or services invoiced by the unit with the exception of the value added type taxes (VAT). VAT are collected in stages by the enterprise and fully borne by the final purchaser.

Turnover also includes all other charges (transport, packaging, etc) passed on to the customer, even if these charges are listed separately in the invoice. Reduction in prices, rebates and discounts as well as the value of returned packaging must be deducted.

Income classified as other operating income, financial income and extra-ordinary income in company accounts according to the 4th Accounting Directive (78/660/ EEC) and revenue from the use by others of enterprise assets yielding interest, royalties and dividends and other income according to IAS/IFRS<sup>1</sup> is excluded from turnover. Operating subsidies received from public authorities or the institutions of the European Union are also excluded.

For the statistics on activities of insurance companies, turnover is taken to equal 'Gross premiums written'.

<sup>1</sup> International Accounting Standard (IAS) and International Financial Reporting Standard (IFRS).

## Production Value

Production value measures the amount actually produced by the unit, based on sales, including changes in stocks and the resale of goods and services.

Production value is defined as turnover or revenue from sales of goods and rendering of services, plus or minus the changes in stocks of finished products, work in progress and goods and services purchased for resale, minus the purchases of goods and services for resale (only for the goods and services sold during the reporting period and excluding the costs of storage and transport of the goods purchased for resale), plus capitalised production, plus other (operating and extra-ordinary) income (excluding subsidies). Income and expenditure classified as financial or as revenue in the form of interests and dividends in company accounts is excluded from production value. Included in purchases of goods and services for resale are the purchases of services purchased in order to be rendered to third parties in the same condition.

Capitalised production includes the own-account production of all goods that are retained by their producers as investment. The latter includes the production of fixed tangible assets (buildings, etc) as well as intangible assets (development of software, etc). Capitalised production is unsold production and is valued at production cost. Note that these capital goods are also to be included in investment.

Other (operating and extra-ordinary) income is a company accounting heading. The contents of this heading may vary between sectors and over time and as such cannot be defined precisely for statistical purposes.

For the statistics on activities of insurance companies, production value is defined as gross premiums earned, plus total portfolio investment income, plus other services produced, minus gross claims incurred, excluding claims management expenses, plus capital gains and provisions.

For the statistics on credit institutions, production value is defined as interest receivable and similar income, less interest payable and similar charges, plus commissions' receivable, plus income from shares and other variable-yield securities, plus net profit or net loss on financial operations, plus other operating income.

**Table A2.1 Calculating production value using 2011 data for Industry**

Variable	€m
1 Total Turnover	112,300
2 Purchases - Goods for resale without further processing	7,300
3 Capital assets manufactured by enterprise for own use	856
4 Stock changes during year - Finished goods and work in progress	108
5 Stock changes during year - Goods for resale without further processing	-14
<b>Production value = (1 - 2 + 3 + 4 + 5)</b>	<b>105,950</b>

## Total purchases of goods and services

Purchases of goods and services include the value of all goods and services purchased during the accounting period for resale or consumption in the production process, excluding capital goods, the consumption of which is registered as consumption of fixed capital. The goods and services concerned may be either resold with or without further transformation, completely used up in the production process or retained as stock.

Included in these purchases are the materials that enter directly into the goods produced (raw materials, intermediary products, components), plus non-capitalised small tools and equipment. Also included are the value of ancillary materials (lubricants, water, packaging, maintenance and repair materials, office materials) as well as energy products. Included in this variable are the purchases of materials made for the production of capital goods by the unit.

Services paid for during the reference period are also included regardless of whether they are industrial or non-industrial. In this figure are payments for all work carried out by third parties on behalf of the unit including current repairs and maintenance, installation work and technical studies. Amounts paid for the installation of capital goods and the value of capitalised goods are excluded.

Also included are payments made for non-industrial services such as legal and accountancy fees, patents and licence fees (where they are not capitalised), insurance premiums, costs of meetings of shareholders and governing bodies, contributions to business and professional associations, postal, telephone, electronic communication, telegraph and fax charges, transport services for goods and personnel, advertising costs, commissions (where they are not included in wages and salaries), rents, bank charges (excluding interest payments) and all other business services provided by third parties. Included are services which are transformed and capitalised by the unit as capitalised production.

Expenditure classified as financial expenditure or as revenue in the form of interests and dividends is excluded from the total purchases of goods and services.

Purchases of goods and services are valued at the purchase price, i.e. the price the purchaser actually pays for the products, including any taxes less subsidies on the products bought excluding however value added type taxes

All other taxes and duties on the products are therefore not deducted from the valuation of the purchases of goods and services. The treatment of taxes on production is not relevant in the valuation of these purchases.

### Purchases of goods and services purchased for resale in the same condition as received

Purchases for resale are purchases of goods for resale to third parties without further processing. It also includes purchases of services by "invoicing" service companies, i.e. those whose turnover is composed not only of agency fees charged on a service transaction (as in the case of estate agents) but also the actual amount involved in the service transaction, e.g. transport purchases by travel agents. The value of goods and services which are sold to third parties on a commission basis are excluded since these goods are neither bought nor sold by the agent receiving the commission.

When services for resale are referred to here, the services concerned are the output from service activities, rights to use predetermined services, or physical supports for services. Purchases of goods and services purchased for resale in the same condition as received are valued at the purchase price excluding deductible VAT and other deductible taxes linked directly to turnover. All other taxes and duties on the products are therefore not deducted from the valuation of the purchases of goods and services.

The treatment of taxes on production is not relevant in the valuation of these purchases.

### Gross value added (GVA) at factor cost

GVA at factor cost is the gross income from operating activities after adjusting for operating subsidies and indirect taxes.

It can be calculated from turnover, plus capitalised production, plus other operating income (including operating subsidies), plus or minus the changes in stocks, minus the purchases of goods and services, minus other taxes on products which are linked to turnover but not deductible, minus the duties and taxes linked to production. The duties and taxes linked to production are compulsory, unrequited payments, in cash or in kind which are levied by general government, or by the Institutions of the European Union, in respect of the production and importation of goods and services, the employment of labour, the ownership or use of land, buildings or other assets used in production irrespec-

tive of the quantity or the value of goods and services produced or sold. Alternatively it can be calculated from gross operating surplus by adding personnel costs.

Income and expenditure classified as financial in company accounts according to the 4th Accounting Directive (78/660/ EEC) is excluded from value added. Income and expenditure classified as interest income, dividend income, foreign exchange gain from foreign currency borrowings related to interest costs, gains on redemption and extinguishment of debt or finance costs according to Commission Regulation (EC) 1725/2003 are excluded from value added.

Value added at factor cost is calculated 'gross' as value adjustments (such as depreciation and impairment losses) are not subtracted.

For the statistics on insurance companies, value added at factor cost is defined as production value, minus gross value of reinsurance services received, minus commissions, minus other external expenditure on goods and services.

For the statistics on credit institutions, value added at factor cost is defined as production value less total purchases of goods and services.

**Table A2.2 Calculating value added at factor cost using 2011 data for Industry**

Variable	€m
1 Total Turnover	112,300
2 Total Purchases	75,008
3 Capital assets manufactured by enterprise for own use	856
4 Total Stock changes during year	94
5 Indirect taxes (excluding VAT) - Excise duty and other indirect taxes	1,319
6 Operating subsidies	34
<b>Value added at factor cost = (1 - 2 + 3 + 4 - 5 + 6)</b>	<b>36,957</b>

### Personnel costs

Personnel costs are defined as the total remuneration, in cash or in kind, payable by an employer to an employee (regular and temporary employees as well as home workers) in return for work done by the latter during the reference period.

Personnel costs also include taxes and employees' social security contributions retained by the unit as well as the employer's compulsory and voluntary social contributions.

Personnel costs are made up of:

- ◆ wages and salaries
- ◆ employers' social security costs

All remuneration paid during the reference period is included, regardless of whether it is paid on the basis of working time, output or piecework, and whether it is paid regularly or not. Included are all gratuities, workplace and performance bonuses, ex gratia payments, thirteenth month pay (and similar fixed bonuses), as well as taxes, social security contributions and other amounts owed by the employees and retained at source by the employers.

Also included are the social security costs for the employer. These include employer's social security contributions to schemes for retirement pensions, sickness, maternity, disability, unemployment, occupational accidents and diseases, family allowances as well as other schemes. These costs are included regardless of whether they are statutory, collectively agreed, contractual or voluntary in nature.

**Table A2.3 Calculating personnel costs using 2011 data for Industry**

Variable	€m
1 Personnel Costs - Wages and salaries	7,812
2 Personnel Costs - Other labour costs	1,656
<b>Total personnel costs = (1 + 2)</b>	<b>9,468</b>

### Gross operating surplus (GOS)

Gross operating surplus is the surplus generated by operating activities after the labour factor input has been recompensed.

It can be calculated from the value added at factor cost less the personnel costs. It is the balance available to the unit which allows it to recompense the providers of own funds and debt, to pay taxes and eventually to finance all or a part of its investment.

**Table A2.4 Calculating gross operating surplus using 2011 data for Industry**

Variable	€m
1 Value added at factor cost (from above)	36,957
2 Total personnel costs (from above)	9,468
<b>Gross operating surplus = (1 - 2)</b>	<b>27,489</b>

### NACE Rev. 2 Classification

NACE Rev. 2 is the statistical classification of economic activities. NACE is an acronym for 'Nomenclature Générale des Activités Économiques dans les Communautés Européennes' (General Industrial Classification of Economic Activities within the European Communities).

### Broad Structure of NACE Rev. 2

Section A Agriculture, forestry and fishing

Section B Mining and quarrying

Section C Manufacturing

Section D Electricity, gas, steam and air conditioning supply

Section E Water supply; sewerage, waste management and remediation activities

Section F Construction

Section G Wholesale and retail trade; repair of motor vehicles and motorcycles

G45 Wholesale and retail trade and repair of motor vehicles and motorcycles

G46 Wholesale trade, except of motor vehicles and motorcycles

G47 Retail trade, except of motor vehicles and motorcycles

Section H Transportation and storage

Section I Accommodation and food service activities

Section J Information and communication

Section K Financial and insurance activities

K64 Financial service activities except insurance and pension funding

K65 Insurance, reinsurance and pension funding

K66 Activities auxiliary to financial services and insurance activity

Section L Real estate activities

Section M Professional, scientific and technical activities

Section N Administrative and support service activities

Section O Public administration and defence; compulsory social security

Section P Education

Section Q Human health and social work activities

Section R Arts, entertainment and recreation

Section S Other service activities

Section T Activities of households as employers; undifferentiated goods and services-producing activities of households for own use

Section U Activities of extraterritorial organisations and bodies

The information presented in this report covers the industry, construction, distributive trade, services and financial & insurance services sectors. The following highlights the composition of these sectors in this report:

<b>Industry</b>	Section B - Mining and quarrying Section C - Manufacturing Section D - Electricity, gas, steam and air conditioning supply Section E - Water supply; sewerage, waste management and remediation activities
<b>Construction</b>	Section F - Construction
<b>Distributive Trade</b>	Section G - Wholesale and retail trade; repair of motor vehicles and motorcycles
<b>Services</b>	Section H - Transportation and storage Section I - Accommodation and food service activities Section J - Information and communication Section L - Real estate activities Section M - Professional, scientific and technical activities Section N - Administrative and support service activities Section R - Arts, entertainment and recreation* Section S - Other service activities*
<b>Financial and insurance activities</b>	Section K - Financial and insurance activities**

\* The Business Operations data includes the productive sectors of NACE Sections R and S (R92, R93, S95 and S96). These are excluded from the Business Demography tables.

\*\* The Business Operations data covers credit institutions and insurance corporations. The Business Demography data includes all of NACE Section K except K6420 (financial holding companies).

**Table A3.1 Employment size classification**

<b>Employment Size Class</b>	<b>Description</b>
<b>Small and medium enterprises (SMEs)</b>	Less than 250 persons engaged
<b>Micro</b>	Less than 10 persons engaged
<b>Small</b>	Between 10 and 49 persons engaged
<b>Medium</b>	Between 50 and 249 persons engaged
<b>Large</b>	Greater than 249 persons engaged

## StatBank - CSO main data dissemination service

Data in this publication can be accessed by opening the “Databases” tab on the Homepage of the CSO website (www.cso.ie) and selecting StatBank (CSO Main Data Dissemination Service).

### 1. Business Demography

Business Sectors/Multisectoral/Business Demography

The screenshot shows the Central Statistics Office website interface. The navigation menu at the top includes 'Home', 'Statistics', 'Databases', 'Releases and Publications', 'Census', 'Surveys and Methodology', and 'Students Corner'. The 'Databases' tab is highlighted with a red circle. Below the navigation menu, the breadcrumb trail reads 'You are here > Home / StatBank Ireland / Business Demography'. The main content area is titled 'Statistical Product - Business Demography' and features an RSS feed icon. Under the heading 'Current Tables', there is a list of data tables with their respective download links and file sizes. The tables listed are:

- BRA18 Business Demography NACE Rev 2 by Activity, County, Statistic and Year (2006-2011) - Modified on 07/08/13 at 14:03. Download .px file (Size: 42.0 kb)
- BRA16 Business Demography NACE Rev 2 by Activity, Persons Engaged, Statistic and Year (2006-2011) - Modified on 07/08/13 at 13:45. Download .px file (Size: 106.2 kb)
- BRA08 Business Demography NACE Rev 2 by County, Employment Size, Year and Statistic (2006-2011) - Modified on 07/08/13 at 13:47. Download .px file (Size: 12.4 kb)
- BRA11 Business Demography NACE Rev 2 by Employment Size, Activity, Year and Statistic (2006-2011) - Modified on 07/08/13 at 13:43. Download .px file (Size: 145.6 kb)
- BRA12 Business Demography NACE Rev 2 by Legal Form, Activity, Year and Statistic (2006-2011) - Modified on 07/08/13 at 13:44. Download .px file (Size: 127.6 kb)
- BRA13 Enterprise Deaths NACE Rev 2 by Employment Size, Activity, Statistic and Year (2006-2010) - Modified on 07/08/13 at 13:44. Download .px file (Size: 129.6 kb)
- BRA14 Enterprise Deaths NACE Rev 2 by Legal Form, Activity, Statistic and Year (2006-2010) - Modified on 07/08/13 at 13:45. Download .px file (Size: 111.8 kb)
- BRA15 Enterprise Survival NACE Rev 2 by Employment Size, Activity, Statistic and Year (2006-2011) - Modified on 03/10/13 at 11:42. Download .px file (Size: 444.8 kb)

Below the current tables, there is a section for 'Archived Tables'.

### 2. Census of Industrial Production (CIP)

Business Sectors/Industry/Census of Industrial Production/ Enterprises - Industrial

The screenshot shows the Central Statistics Office website interface. The navigation menu at the top includes 'Home', 'Statistics', 'Databases', 'Releases and Publications', 'Census', 'Surveys and Methodology', and 'Students Corner'. The 'Databases' tab is highlighted with a red circle. Below the navigation menu, the breadcrumb trail reads 'You are here > Home / StatBank Ireland / Enterprises Industrial'. The main content area is titled 'Statistical Product - Enterprises Industrial' and features an RSS feed icon. Under the heading 'Key Tables', there is a list of data tables with their respective download links and file sizes. The tables listed are:

- AIA27 Industrial Enterprises NACE Rev 2 by Statistic, Year and Persons Engaged (2008-2011) - Modified on 07/08/13 at 13:06. Download .px file (Size: 22.7 kb)
- AIA30 Industrial Enterprises by Statistic, Year and Industry Sector NACE Rev 2 (2008-2011) - Modified on 08/08/13 at 11:31. Download .px file (Size: 121.0 kb)
- AIA28 Industrial Enterprises NACE Rev 2 by Statistic, Year and Turnover per Enterprise (2008-2011) - Modified on 07/08/13 at 13:07. Download .px file (Size: 23.5 kb)
- AICA1 Census of Industrial Production by Industry Sector, Year and Statistic (1991-2007) - Modified on 04/04/13 at 9:50. Download .px file (Size: 12.2 kb)
- AIA15 Industrial Enterprises by Persons Engaged, Year and Statistic (2007-2007) - Modified on 04/04/13 at 9:45. Download .px file (Size: 20.0 kb)
- AIA16 Industrial Enterprises by Year, Statistic and Turnover per Enterprise (2007-2007) - Modified on 04/04/13 at 9:45. Download .px file (Size: 19.0 kb)
- AIA12 Industrial Enterprises by Year, Statistic and Industry Sector (2007-2007) - Modified on 03/04/13 at 18:14. Download .px file (Size: 49.9 kb)

Below the key tables, there is a section for 'Archived Tables'.

### 3. Building and Construction Inquiry (BCI)

Business Sectors/Construction/Enterprise Statistics on Construction

The screenshot shows the Central Statistics Office website. The 'Databases' menu item is circled in red. The page title is 'Statistical Product - Enterprise Statistics on Construction'. The left sidebar shows a tree view with 'Enterprise Statistics on Construction' selected and circled in red. The main content area lists several tables:

- Key Tables**
  - BAA12 Construction Enterprises by Statistic, Year and Nace Rev 2 Activity (2009-2011) - Modified on 25/09/13 at 12:19. Download .px file (Size: 26.1 kb)
- Current Tables**
  - BAA13 Construction Enterprises by Statistic, Year and Persons Engaged (2009-2011) - Modified on 25/09/13 at 12:19. Download .px file (Size: 22.3 kb)
  - BAA14 Construction Enterprises by Statistic, Year and Turnover (2009-2011) - Modified on 25/09/13 at 12:20. Download .px file (Size: 22.1 kb)
- Archived Tables**
  - BAA01 Activity of Private Building and Construction Firms with 20 or more Persons Engaged by Item, Year and Building Sector (1991-2003) - Modified on 02/04/13 at 13:02. Download .px file (Size: 84.6 kb)
  - BAA02 Turnover as a Principal Contractor by Type of Building Activity, Year and Building Sector (1995-2005) - Modified on 08/03/13 at 17:25. Download .px file (Size: 5.5 kb)
  - BAA03 Purchases in Building and Construction Industry by Type of Purchases, Year and Building Sector (1995-2003) - Modified on 08/03/13 at 17:25. Download .px file (Size: 6.7 kb)
  - BAA04 Persons Engaged in Building and Construction Industry by Employee Grade, Year and Building Sector (1995-2005) - Modified on 08/03/13 at 17:25.

### 4. Annual Services Inquiry (ASI)

Business Sectors/Services/Enterprise Statistics on Distribution and Services

The screenshot shows the Central Statistics Office website. The 'Databases' menu item is circled in red. The page title is 'Statistical Product - Enterprise Statistics on Distribution and Services'. The left sidebar shows a tree view with 'Enterprise Statistics on Distribution and Services' selected and circled in red. The main content area lists several tables:

- Key Tables**
  - ANA09 Distribution and Services Enterprises by NACE Rev 2 Sector, Year, Statistic and Persons Engaged (2009-2011) - Modified on 08/06/13 at 11:52. Download .px file (Size: 13.8 kb)
  - ANA13 Distribution and Services Enterprises by NACE Rev 2 Sector, Year and Statistic (2008-2011) - Modified on 08/03/13 at 17:25. Download .px file (Size: 17.0 kb)
- Current Tables**
  - ANA00 Distribution and Services Enterprises by NACE Rev 2 Sector, Year, Statistic and Region (2008-2011) - Modified on 08/03/13 at 17:25. Download .px file (Size: 24.0 kb)
  - ANA10 Distribution and Services Enterprises by NACE Rev 2 Sector, Year, Statistic and Turnover (2008-2011) - Modified on 08/06/13 at 11:50. Download .px file (Size: 40.9 kb)
  - ANA12 Distribution and Services Enterprises with 20 or more Persons Engaged by NACE Rev 2 Sector, Year, Statistic and Nationality of Ownership (2009-2011) - Modified on 03/04/13 at 15:39. Download .px file (Size: 13.4 kb)
- Archived Tables**
  - ANA01 Business Aggregates for all Service Enterprises by Type of Service, Year and Statistic (1998-2007) - Modified on 04/06/13 at 11:32. Download .px file (Size: 92.0 kb)
  - ANA11 Distribution and Services Enterprises by NACE Rev 2 Sector, Year, Statistic and Family Business Status (2008-2009) - Modified on 08/03/13 at 17:25.

## 5. Financial sector

Business Sectors/Services/Enterprise Statistics on Financial Sector.

The screenshot displays the Central Statistics Office website interface. At the top, the logo and name 'Central Statistics Office' are visible, along with navigation links for 'About Us', 'News', 'Links', 'Contact Us', and 'Gaeilge'. A search bar labeled 'Search Statbank' is present. Below this is a main navigation bar with tabs for 'Home', 'Statistics', 'Databases', 'Releases and Publications', 'Census', 'Surveys and Methodology', and 'Students Corner'. The 'Databases' tab is highlighted and circled in red. Below the navigation bar, the breadcrumb trail reads 'You are here > Home / Statistics in English / Enterprise Statistics on Financial Sector'. On the left, a 'Theme' sidebar lists various categories, with 'Enterprise Statistics on Financial Sector' under the 'Services' sub-category circled in red. The main content area is titled 'Statistical Product - Enterprise Statistics on Financial Sector' and includes a 'Current Tables' section with two entries: 'IBA01 Production Account and Generation of Income for All Banks by Statistic and Year (2009-2010)' and 'IBA02 Production Account and Generation of Income for All Insurance Companies by Statistic and Year (2009-2010)'. A 'Note' section provides instructions on downloading the full px data file and mentions that the software works only with Microsoft Windows.



