AN ANALYSIS OF THE 2011 ANNUAL BUSINESS SURVEY OF ECONOMIC IMPACT

JULY 2013
Executive Summary

High-Level Performance of Key Business Indicators

This report presents the results of the 2011 Annual Business Survey of Economic Impact (ABSEI) for agency firms that have ten or more employees. The main focus of the report is on four key business indicators—sales, exports, value added and direct expenditure in the Irish economy—over the time frame of 2000 to 2011. A fifth key indicator is employment, and in this report any reference made to employment figures is done so with the underlying acknowledgement that the ABSEI survey data is based on the cohort of agency firms with ten or more employees and that the Forfás Annual Employment Survey more accurately reflects employment for the total set of agency firms.

Figure A. Variation of the values of key indicators over the period 2000-2011 in agency firms with ten or more employees.

Figure A presents the value of each of the five key indicators over time, for all of the agency firms and key findings include:

- Sales and exports in 2011 are higher than in 2010 by 7% and 8% respectively. The value of sales and exports recorded across all agency firms in 2011 are the highest level of sales and exports recorded since 2000, and in 2011 sales and exports are showing strong recovery over 2009 values.

- Value added was also higher for all firms in 2011 than in 2010 by 7%. This indicator was stable over the 2007 to 2010 period with evidence of growth in 2011, so that the value

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1 All data is presented in current prices.
recorded in 2011 was the highest recorded value of value added over the 2000 to 2011 time period.

- Direct Expenditure in the Irish economy\(^2\) remained reasonably stable over the 2000-2011 time period, with some indication of a dip in 2009 and recovery in 2011. The 2011 out-turn was also higher than 2010 by 6% for the direct expenditure indicator.

- Employment in agency firms with ten or more employees has stabilised since the sharp decline between 2008 and 2009.

As can be seen in the data presented in Figure A, overall there has been positive growth recorded in each of the five key indicators between 2010 and 2011, and thus as a whole there has been an arrest in the decline of these indicators in agency firms.

**Messages: Key Business Indicator Performance**

Deeper analysis of the time series data for each of the four key business indicators reveals a number of highlights for the performance of Irish and foreign-owned firms in the Manufacturing and Internationally Traded Services Categories. Table A summarises the 2010-2011 key business indicator performances across Irish and foreign-owned firms in the Manufacturing and Internationally-Traded Services Categories.

**Table A. Percentage change between 2010 and 2011 for each of the four key business indicators in 2011, in agency firms with ten or more employees.**

<table>
<thead>
<tr>
<th>Industrial Category</th>
<th>Ownership Status</th>
<th>2010-2011 Change in Sales</th>
<th>2010-2011 Change in Exports</th>
<th>2010-2011 Change in Value Added</th>
<th>2010-2011 Change in Direct Expenditure in Irish Economy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>Irish-owned</td>
<td>9%</td>
<td>16%</td>
<td>3%</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td>Foreign-owned</td>
<td>4%</td>
<td>4%</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>Internationally-Traded</td>
<td>Irish-owned</td>
<td>4%</td>
<td>14%</td>
<td>6%</td>
<td>1%</td>
</tr>
<tr>
<td>Services</td>
<td>Foreign-owned</td>
<td>11%</td>
<td>11%</td>
<td>9%</td>
<td>14%</td>
</tr>
</tbody>
</table>

An analysis for Irish and foreign firm ownership and for Manufacturing and Internationally-Traded Services Categories, highlights that there has been an arrest in the decline of the key

\(^2\)Direct Expenditure in the Irish Economy is defined as - payroll expenditure + purchases of materials produced in Ireland + purchases of services produced in Ireland.
business indicators for both Irish and foreign-owned firms, and indeed for many of the key business indicators there was growth between 2010 and 2011, both in the Internationally-Traded Services Category and the Manufacturing Category.

Messages on Performance of Agency Firms by Key Business Indicators and by Firm Ownership

Sales Indicator

There was particularly strong growth in sales between 2010 and 2011 in the Manufacturing Category for Irish-owned firms at 9%, however, the 2011 sales value is still 17% lower than the value recorded in 2007 (highest value for sales between 2002-2011). Furthermore, despite an overall growth of 98% in current prices between 2002 and 2011, sales in the Internationally-Traded Services Category by Irish-owned firms has been quite static since 2008.

In the Manufacturing Category for foreign-owned firms, there has also been two successive years of sales growth, and the sales in 2011 reached a value that was within 3% of the 2008 value (highest sales recorded over the period reviewed). In the Internationally-Traded Services Category, an 11% growth in sales between 2010 and 2011 for foreign-owned firms resulted in 2011 posting the highest sales value of the 2002-2011 period.

Exports Indicator

Particularly strong (double digit) export growth of 16% was recorded in the Manufacturing Category for Irish-owned firms between 2010 and 2011, following on from export growth of 14% between 2009 and 2010. This growth has led to an export value in 2011 that is 7% higher than the previous highest export value (recorded in 2007). Strong growth was also recorded for Irish-owned firms between 2010 and 2011 in the Internationally-Traded Services at 14%, resulting in the highest export value of the 2002-2011 period being achieved in 2011.

In the Manufacturing Category for foreign-owned firms, there has been two successive years of export growth, and the exports in 2011 reached a value that was within 2% of the highest exports recorded over the 2002-2011 time frame reviewed. In the Internationally-Traded Services Category, an 11% growth in exports between 2010 and 2011 for foreign-owned firms resulted in the highest export value, of the 2002-2011 period, being recorded in 2011.

Value Added Indicator

Value added in the Manufacturing Category demonstrated growth between 2010 and 2011, following declines since 2007. However, this indicator was 27% below the 2007 value (the highest value recorded over the period reviewed). The value added for Irish-owned firms in the Internationally-Traded Services Category has not shown any year on year decline between 2002 and 2011, with the result that the 2011 value is the highest value recorded over the period reviewed. Furthermore, for Irish-owned firms, the value added of the Internationally-Traded Services Category, surpassed the value added of the Manufacturing Category in 2011.

In the Manufacturing Category for foreign-owned firms, value added has shown year on year growth from 2006 up to 2011, and the highest value over the 2002-2011 period was recorded in 2011. Value added in the Internationally-Traded Services Category has been declining since 2007, but in 2011 has shown growth for the first time since then. However, the 2011 value is 7% lower than the 2007 value (the highest value recorded over the period reviewed).
Direct Expenditure in the Irish Economy Indicator

Growth in direct expenditure in the Irish economy for Irish-owned firms between 2010 and 2011 was strongest in the Manufacturing Category at 7%. However, direct expenditure in 2011 in this category (for Irish-owned firms) was 15% lower than in 2007. Internationally-Traded Services Category has remained reasonably static over the 2008-2011 period for Irish-owned firms.

Despite foreign-owned firms in the Manufacturing Category demonstrating growth between 2009 and 2010, and, between 2010 and 2011 (of 0.5% and 4% respectively), direct expenditure remained 15% lower than the 2007 value.

Strong growth was recorded for direct expenditure in the Irish economy between 2010 and 2011 for the foreign-owned firms in the Internationally-Traded Services Category at 14%, and the 2011 value posted was the highest value recorded over the 2002-2011 period. From 2009, the absolute value of direct expenditure in the Irish economy has remained higher for the Internationally-Traded Services Category than the Manufacturing Category for foreign-owned firms.

Conclusions on Performance of Agency Firms by Key Business Indicator and by Industry Category

The Manufacturing Category

For both Irish-owned and foreign-owned firms in the Manufacturing Category, direct expenditure in the Irish economy exhibited small growth in 2010-2011, but had values in 2011 significantly smaller than the highest value recorded over the 2002-2011 period.

Sales and exports for Irish-owned and foreign-owned firms in the Manufacturing Category also demonstrated similar overall characteristics between 2002 and 2011: a dip in 2009, followed by two years of successive growth. However, the exports for Irish-owned firms in the Manufacturing Category, was the only area to record a highest value for 2011 (over the period reviewed).

Finally, the behaviours of the value added indicator in the Manufacturing Category were distinctly different for the Irish-owned and the foreign-owned firms: foreign-owned firms demonstrated year on year growth from 2006 and achieved a highest value for the period in 2011. Irish-owned firms showed a 30% decline from 2007-2010, with only 3% recovery in 2010-2011.

The Internationally-Traded Services Category

For both Irish-owned and foreign-owned firms in the Internationally Traded Services Category, the highest values for many of the key business indicators over the 2000-2011 period were recorded in 2011. This is true for sales and exports. Irish-owned firms in the Internationally-Traded Services Category also recorded the highest level of value added in 2011 over the 2000-2011 period, and foreign-owned firms in this category recorded a value added level just lower than the 2008 value (which was the highest value recorded during the period 2000-2011).

Foreign-owned firms recorded their highest level of direct expenditure in the Irish economy in 2011 in the Internationally-Traded services Category, and Irish-owned firms posted a value of direct expenditure in the Irish economy just below the highest value for the 2000-2011 period, which was recorded in 2008.
Both Irish and foreign-owned firms in the Internationally-Traded Services Category have demonstrated reasonably robust performance over many of the key business indicators over the 2002 to 2011 period, and consequently, the International-Traded Services Category has increased importance in the overall activity level of agency firms. In fact, the increasing importance of the Internationally-Traded Services Category in agency activities was confirmed by comparing the share of each of the key business indicators in the Manufacturing Category and the Internationally-Traded Services Category.

Based on the cohort of agency firms that have ten or more employees, the share of Internationally-Traded Services in each of the key business indicators increased between 2002 and 2011 as follow:

- Sales: increased from 29% to 44%
- Exports: increased from 31% to 46%
- Value Added: increased from 25% to 36%
- Direct Expenditure: increased from 34% to 39%

### Sectoral Performance of Key Business Indicators

This section presents an analysis of a number of the key sectors in the Manufacturing Category and Internationally-Traded Services Category with the highest contributions to the absolute value of each of the five key indicators in 2011. We emphasise again that whenever employment is referred to in this report, it is done so in the context of representing the performance of the cohort of agency firms with ten or more employees, and that the Annual Employment Survey is a more accurate reflection for employment in all agency firms.

#### Irish-Owned Firms

The Food, Drink & Tobacco, Computer, Electronic & Optical Products, and Machinery & Equipment sectors all showed an increased share of performance for each of the key indicators in the Manufacturing Category in 2011 over the 2002 share. The Basic & Fabricated Metal Products sector demonstrated a decrease in the share of sales and no change in the share of the other key indicators. It appears that the increased shares of employment in the Food, Drink & Tobacco and Machinery & Equipment sector, and employment and direct expenditure in the Computer, Electronics & Optical Products sector are all likely a consequence of larger reductions in the absolute indicator values in other sectors of the Manufacturing Category.

There was a mixed set of performance across the sectors in terms of the change in absolute indicator values between 2002 and 2011, though the majority of indicators grew positively in each sector between 2010 and 2011. Indicators for some sectors have demonstrated recovery to 2008 or, superseded 2008 levels. Exports in particular have shown strong performance, with two of the sectors (Food, Drink & Tobacco, and Machinery & Equipment) reporting levels of exports in 2011 which were the highest levels that have been recorded over the 2002 to 2011 period. The Basic & Fabricated Metal Products sector did record overall positive growth.

The Medical Device Manufacturing sector demonstrated year on year growth from 2008 in the sales, exports and value added variables and reached the highest value over the 2002 to 2011 time frame in sales, exports and direct expenditure.

The Computer Programming, Computer Consultancy, and the Computer Facilities Management sectors are the three sectors having the greatest weighting in the Internationally-Traded Services Category for Irish-owned firms. The Computer Consultancy sector demonstrated a decline in share across all key indicators while the Financial Services sector demonstrated an increase in share across all indicators. The Business Services Category performance was mixed, with some key indicators recording an increase in share, and some indicators a decline in share.

Positive growth between 2010 and 2011 was recorded for all key business indicators in the Computer Consultancy sector and for all key business indicators between 2002 and 2011. In 2011 this sector recorded its highest sales, exports and value added values of the 2002-2011 period.

The Financial Services sector recorded its highest values over the 2002-2011 period, in 2011, for all key business indicators, and demonstrated positive growth across all key business indicators between 2002 and 2011. Year on year growth in sales and exports was observed between 2002 and 2011.

The Business Services sector also demonstrated the highest recorded value of exports over the 2002-2011 period, in 2011. Positive growth in all key business indicators was recorded between 2002 and 2011 and positive growth for exports was recorded between 2010 and 2011. Year on year growth in exports was also observed for exports over the 2002-2011.

Thus, the three highest impact sectors in the Internationally-Traded Services Category (Computer Consultancy, Financial and Business Services) all showed strong performance across most of the key business indicators between 2002 and 2011 for Irish-owned agency clients.

Foreign-Owned Firms

The Food, Drink & Tobacco, Chemicals, Computer, Electronic & Optical Products, and Medical Device Manufacturing are the four largest sectors in the Manufacturing Category for foreign-owned firms.

Three of the four sectors demonstrated highest value key business indicators in 2011:

- Medical Device Manufacturing sector: four key business indicators achieved their highest values in 2011 (based on the 2002-2011 period): sales, exports, value added and direct expenditure.
- Chemicals sector: three business indicators achieved their highest value in 2011 (based on the 2002-2011 period): sales, exports, and value added.

Three of the four sectors (Food, Drink & Tobacco, Chemicals and Medical Device Manufacturing) continued to grow in terms of importance in the Manufacturing Category.
However, despite the growth in absolute value of many of the indicators in each sector between 2002 and 2011, the increases in shares observed are also a result of the reassignment of some firm activities from the Computer, Electronic & Optical Products sector in 2009, to sectors in the Internationally-Traded Services Category.

Medical Devices Manufacturing and Chemicals have been quite robust over time in terms of sales, exports and value added performance.

While the Food, Drink & Tobacco sector maintained or increased its share of the key business indicators from 2002 to 2011, none of the indicators demonstrated year on year growth, or reached a value in 2011 that was higher than the 2008 value. This indicates that the Food, Drink & Tobacco sector has not recovered to 2008 performance as of yet.

It is also worth noting that there are a number of sectors that have a much lower share of the Manufacturing Category in output terms for foreign-owned firms but which have some positive characteristics in terms of performance. Agriculture, Fishing, Mining & Quarrying, Rubber & Plastics and Basic & Fabricated Materials sectors all demonstrated positive growth between 2002-2011 and 2010-2011, in at least three key indicators.

The Computer Programming, Computer Consultancy, and Computer Facilities Management sectors were identified as the three sectors having the greatest weighting in the Internationally-Traded Services Category for foreign-owned firms. The performance of the three highest impact sectors in the Internationally-Traded Servicers Category all behaved differently with respect to the change in their share of key indicators between 2002 and 2011. The Computer Programming sector demonstrated a decline in share across all key indicators while the Computer Consultancy sector demonstrated an increase in sales and exports and a decline in employment, value added and direct expenditure. The Computer Facilities Management sector demonstrated an increase in share in all indicators except employment.

Sales and exports in Computer Programming and Computer Consultancy reached their highest values (over the 2002-2011 time frame) in 2011, as did value added in the Computer Programming sector.

For the Computer Consultancy sector, highest values of the 2002-2011 period were recorded for three of the key business indicators in 2011 - sales, exports and direct expenditure.

Spotlight on Materials and Services Produced in Ireland and Purchased by Irish and Foreign Owned Firms

The performance of direct expenditure in the Irish economy has been analysed in detail in sections 2 and 3 of this report. Direct expenditure in the Irish economy is made up of a number of sub-components, namely payroll expenditure and purchases of Irish-produced materials and services, and hence it is a more complex indicator than the other four business indicators to interpret.

The percentage of Irish-produced materials and services purchased, as a share of total materials purchased by Irish-owned firms, are substantial in both the Manufacturing and Internationally-Traded Services Category. However, the share of Irish-produced materials and services purchased relative to total materials and services purchased has decreased over time.
for both the Manufacturing and Internationally-Traded Services Category. Medical Device
Manufacturing and Other IT and Computer Services demonstrated growth characteristics, both
for purchases of Irish-produced materials and services. However, given that the purchases of
materials and services is dominated in absolute terms by a small number of sectors, it would
seem important to focus on these sectors to secure positive growth in the future in the total
share of purchases of Irish-produced materials and services.

More dramatic decreases over time were observed for foreign-owned firms than Irish-owned
firms. This is demonstrated in Figure B, which shows the share of Irish-produced services
purchased as a percentage of total services purchased for Irish and foreign-owned firms in the
Internationally-Traded Services Category.
Foreign-owned firms exhibit a dramatic fall off to 2006 for the percentage of Irish-produced services purchased as a share of total services purchased, and then plateaued. Purchasing of Irish-produced services by foreign-owned firms indicates a monetary inflow into the domestic economy. Thus, it is important that we take stock of these types of trends and determine what policy interventions may be required in order to optimise the purchasing of Irish-produced services and materials by foreign-owned firms. Initiatives in this regard are being progressed as part of the Government’s Action Plan for Jobs.
Section 1  Introduction

1.1  Background

This document presents the findings of the Annual Business Survey of Economic Impact (ABSEI) for 2011. The survey covers the client base of Enterprise Ireland, IDA Ireland, Shannon Development and Údarás na Gaeltachta. The population comprises all Manufacturing, Internationally-Traded Services and Energy, Water, Waste & Construction client firms in Ireland with 10 or more employees.

The response rate for this survey was 61 percent which is in line with previous years (63 percent in 2010).

The document provides aggregated and disaggregated estimates for all Irish-owned and foreign-owned client firms across a range of variables and provides an overview of the evolution of key business indicators in the Manufacturing, Internationally-Traded Services and Energy, Water, Waste & Construction categories over recent years. All figures in this report are in nominal values, unless stated otherwise.

1.2  Methodology and Use of Data

An inter-agency group, chaired by Forfás, comprised of representatives from each of the participating agencies, manages the implementation of this survey. The group decides on issues of methodology, coverage and questionnaire content.

The survey is used extensively by Forfás and the participating agencies for a number of purposes, some of which are listed below:

- Each of the participating agencies obtains aggregated information relating to its own client base, and this information is used to assess the achievement of internal goals and targets.

- The firm-level data compiled in the survey is used by each of the agencies, and by Forfás, to add to its knowledge of individual company performance, and also to feed into numerous policy/sectoral studies where information is required on different groups of companies.

- Survey results are published annually on the Forfás website: www.forfas.ie
1.3 Sectors and NACE Codes Used in Report

The classification of economic activity used in the Annual Business Survey of Economic Impact is NACE Rev. 2. This report provides a commentary on key results in respect of Irish-owned agency firms in the Manufacturing, Internationally-Traded Services, and Energy, Water, Waste & Construction categories, and foreign-owned agency firms in the Manufacturing and Internationally-Traded Services categories.

A number of sectors make up each of the industry categories as follows:

**Manufacturing Category**
- Agriculture, Fishing, Forestry, Mining & Quarrying (1-9)
- Food, Drink & Tobacco (10-12)
- Textiles, Clothing, Footwear & Leather (13-15)
- Wood & Wood Products (16)
- Paper & Printing (17-18)
- Chemicals (19-21)
- Rubber & Plastics (22)
- Non-Metallic Minerals (23)
- Basic & Fabricated Metal Products (24-25)
- Computer, Electronic & Optical Products (26)
- Electrical Equipment (27)
- Machinery & Equipment (28)
- Transport Equipment (29-30)
- Medical Device Manufacturing (32.5)
- Other Misc. Manufacturing (31-32.4,32.6-33)

**Internationally Traded Services Category**
- Publishing, Broadcasting & Telecommunications (58-61)
- Computer Programming (6201)
- Computer Consultancy (6202)
- Computer Facilities Management (6203)

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3 It is important to note that the ABSEI tracks only Agency client companies’ performance and is not meant to be a snapshot of the national economy. This should be borne in mind when analysing sectoral performance. In some instances, there will be a wide disparity between national (e.g. CSO) sectoral data and ABSEI sectoral data because the agency cohort of companies may represent a small proportion of the national sector; the Financial Services sector is a good case in point in this regard.
Other IT and Computer Services (6209-63)
Financial Services (64-66)
Business Services (68-84, 94-96)
Education (85)
Other services (45-56)(86-93)

Energy, Water, Waste & Construction Category
- Energy (35)
- Recycling & Waste (36-39)
- Construction (41-43)

Detailed tabular data for each of these categories are provided in excel format on the Forfás website: www.forfas.ie. Tables provide the sectoral data for a range of business indicators over the 2000-2011, and are provided separately for Irish-owned, foreign-owned and all client firms.

There were a number of adjustments of note made in developing the detailed tabular data sets for the 2011 survey:
- Reassignment of a number of companies in the Food, Beverage & Tobacco sector from classification of Irish-owned to foreign-owned status. The change in classification of these firms was reflected throughout the time series of data.
- A category for Energy, Waste, Water and Construction Activities was highlighted, rather than being merged with Manufacturing and Internationally-Traded Services Categories.
- In 2009, there was a reclassification of some of the activity from the Manufacturing Category to the Internationally-Traded Category, in order to greater reflect the evolved nature of firm activities. Such reassignments were not backward reflected in the time series data.

1.4 Outline of Report

This report presents an analysis of the ABSEI data as follows:
- Section 2 presents a time series analysis of five key indicators, with a particular focus on four key business indicators. In this section, the full set of client firms are initially used to present the total picture of performance over the time period 2002-2011. The data is subsequently presented according to industry category, and also according to firm-ownership status. A number of key messages are developed in the summarisation of this section.
• Section 3 provides detail on the sectoral performance of indicators and the weighted level of influence of sectors on the overall industry category performances.

• In section 4, a spotlight is put on the specific business indicator of direct expenditure in the Irish economy. In this section there is a particular emphasis on analysis of the Irish-produced materials and services purchased as a proportion of the total purchases made by firms.
Section 2  Performance of Key Indicators

2.1 Performance of Key Indicators for all Agency Firms

In this section, the performance of five key indicators are presented (sales, exports, value added, direct expenditure, and employment), with a particular focus on the four indicators that constitute the key business indicators (sales, exports, value added, and direct expenditure). It is emphasised that, whenever employment is referred to in this report, it is done so in the context of representing the performance of the cohort of agency firms with ten or more employees, and that the Forfás Annual Employment Survey is a more accurate reflection for employment in all agency firms.

The values in 2011 for the four key business indicators are broken out by firm ownership and by Industry Category in Table 1. The figures in Table 1 are values based on the cohort of agency firms with ten or more employees.

Table 1 Summary table of key business indicators for ABSEI 2011, according to firm ownership and industry category.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales-including to Dairy Board (€,000)</td>
<td>Irish</td>
<td>17,211,494</td>
<td>6,478,281</td>
<td>2,964,732</td>
</tr>
<tr>
<td></td>
<td>Foreign</td>
<td>68,888,138</td>
<td>63,713,680</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>All</td>
<td>86,099,633</td>
<td>70,191,961</td>
<td>2,964,732</td>
</tr>
<tr>
<td>Exports (€,000)</td>
<td>Irish</td>
<td>8,295,618</td>
<td>3,278,720</td>
<td>1,256,208</td>
</tr>
<tr>
<td></td>
<td>Foreign</td>
<td>66,259,241</td>
<td>60,985,057</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>All</td>
<td>74,554,859</td>
<td>64,263,777</td>
<td>1,256,208</td>
</tr>
<tr>
<td>Value-Added (€,000)</td>
<td>Irish</td>
<td>4,493,928</td>
<td>4,565,288</td>
<td>1,131,743</td>
</tr>
<tr>
<td></td>
<td>Foreign</td>
<td>32,386,078</td>
<td>17,082,281</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>All</td>
<td>36,880,006</td>
<td>21,647,569</td>
<td>1,131,743</td>
</tr>
<tr>
<td>Direct Expenditure in the Irish Economy (€,000)</td>
<td>Irish</td>
<td>11,828,187</td>
<td>3,132,555</td>
<td>1,788,147</td>
</tr>
<tr>
<td></td>
<td>Foreign</td>
<td>9,854,540</td>
<td>11,628,210</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>All</td>
<td>21,682,727</td>
<td>14,760,765</td>
<td>1,788,147</td>
</tr>
</tbody>
</table>
The data in Table 1 indicates that the total values of the indicators for sales, exports and value added are strongly influenced by the activity of the foreign-owned firms as they represent a high proportion of the total indicator values. However, direct expenditure in the Irish economy is of the same order of magnitude for Irish and foreign-owned firms.

Graphs of the values of the five key indicators over the period 2000 to 2011 are shown in Figure 1, for agency firms with more than ten employees.

**Figure 1 Variation of the values of key indicators over the period 2000-2011, for agency firms with ten or more employees.**

- Sales and exports in 2011 are higher than in 2010 by 7% and 8% respectively. The values for sales and exports, recorded across all agency firms in 2011, were the highest value recorded for these indicators between 2000 and 2011. The time series profile in Figure 1 indicates that in 2011 sales and exports are showing strong recovery over 2009 values.

- Value added was also higher in 2011 than in 2010 by 6%. This indicator was stable over the 2007 to 2010 period with evidence of growth in 2011, so that the value recorded in 2011 was the highest recorded value of value added over the 2000 to 2011 time period.

- Direct Expenditure in the Irish economy remained reasonably stable over the 2000-2011 time period, with some indication of a dip in 2009 and recovery in 2011. The 2011 value was also higher than the 2010 value by 6% for the direct expenditure indicator.

Overall, there has been positive growth recorded in each of the five key indicators between 2010 and 2011 and there has been an arrest in the decline of these indicators in agency firms.

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4 Exports (inc. IDB) indicates that the export values include sales to the Irish Dairy Board.

5 Direct Expenditure in the Irish Economy is defined as - payroll expenditure + purchases of materials produced in Ireland + purchases of services produced in Ireland.
2.2 Performance of Key Indicators by Ownership and Industry Category

Figures 2(a) & 2(b) to Figure 6(a) & 6(b), show how the key indicators vary with time for Irish-owned and foreign-owned firms, by Manufacturing Category, the Internationally-Traded Services Category and the Energy, Water, Waste & Construction Category. It is noted that, in 2009, there was reassignment of some agency firm activity from the Manufacturing to the Internationally-Traded Services Category as a consequence of the evolving nature of firm activities. There was no back-reflection of the changes, as the changes demonstrate real effects of firm evolution over time. Thus, Figures, 2-6 represent the reality of the Industry Category performance over time. However, it is worth noting that, the prominence of the dips in the indicator values in the Manufacturing Category and the indicator growth rate of the Internationally-Traded Services Category, in 2009, are in some cases strongly influenced by the reassignment. However, in the absence of the reassignment the general characteristics of business indicators as shown in Figures 2-6 hold, indicating that the impact of the reassignment merely acts to amplify features (in 2009-2011) in the key indicator time series graphs.

2.2.1 Sales

Overall sales in 2011 were up 7% from 2010, and grew by 42% over the period 2002-2011. Overall 17% of sales are by Irish-owned firms and 83% are by foreign-owned firms. 54% of sales in 2011 were attributed to the Manufacturing Category, 44% to the Internationally-Traded Services Category and 2% to the Energy, Water, Waste & Construction Category. This compares with 69%, 29% and 3% respectively in 2002.
Figure 2(a) Sales values for Irish-owned firms in the Manufacturing, Internationally-Traded Services, and Energy, Water, Waste & Construction Categories between 2000 and 2011, for agency firms with ten or more employees.

Figure 2(b) Sales values for foreign-owned firms in the Manufacturing, Internationally-Traded Services, and Energy, Water, Waste & Construction Categories between 2000 and 2011, for agency firms with ten or more employees.
2.2.1.1 Sales - Irish-Owned Firms

In 2011, Irish-owned firms accounted for 20% of total sales in the Manufacturing Category, 9% of total sales in the Internationally-Traded Services Category and 100% of sales in the Energy, Water, Waste & Construction Category, in agency assisted firms. This compares with shares of 23%, 10% and 100% respectively in 2002.

In 2011, for Irish-owned firms, 65% of sales were in the Manufacturing Category compared to 74% in 2002; 24% were in the Internationally-Traded Services Category up from 14% in 2002 and 11% were in the Energy, Water, Waste & Construction Category, down from 12% in 2002.

For Irish-owned companies, sales increased by 6% between 2010 and 2011, and, over the period 2002-2011 sales increased by 12%. Overall for Irish-owned firms:

- the Manufacturing Category showed a decline of 2% over 2002-2011 but a growth of 9% between 2010 and 2011.
- the Internationally-Traded Services Category showed growth of 98% over 2002-2011 and a growth of 4% between 2010 and 2011.
- the Energy, Water, Waste & Construction Category showed a decline of 1% over 2002-2011 and a decline of 7% between 2010 and 2011.

Figure 2(a) shows that over the past decade, sales for Irish-owned firms in the Manufacturing Category have dominated over the Internationally-Traded Services and Energy, Water, Waste & Construction categories. However, the robustness of the Internationally-Traded Services Category to the recession in terms of sales is indicated by the relative steadiness (with slow growth) of the sales values recorded over the past three years. Over the time period 2002-2011 the Irish-owned firms that make up the Internationally-Traded Services Category have recorded an increase of 98% in sales. In contrast, the sales in the Manufacturing Category in 2008 and 2009 significantly declined. However, as shown in Figure 2(a), there is a clear indication of the recovery of the Manufacturing Category in terms of sales in 2011, though sales remain lower than the value in 2007 by 17%.

2.2.1.2 Sales - Foreign-Owned Firms

Overall, in 2011, foreign-owned firms accounted for 80% of sales in the Manufacturing Category and 91% of sales in the Internationally-Traded Services Category in agency assisted firms. This compares with 77% and 90% respectively in 2002.

In 2011, for foreign-owned firms, 52% of sales were in the Manufacturing Category compared to 67% in 2002, and 48% were in the Internationally-Traded Services Category up from 33% in 2002, the same as in 2002.

There has been growth in sales by foreign-owned firms in the Internationally-Traded Services Category such that the ratio of Internationally-Traded Services to Manufacturing Category sales has shifted from 33:67 in 2002 to 48:52 in 2011.

For foreign-owned companies, sales increased by 7% between 2010 and 2011, and over the period 2002-2011 sales increased by 50%. Overall for foreign-owned firms:

- the Manufacturing Category showed a growth of 16% in sales over 2002-2011 and a growth of 4% between 2010 and 2011.
- the Internationally-Traded Services Category showed growth in sales of 121% over 2002-2011 and a growth of 11% between 2010 and 2011.
• there is no sales activity associated with Energy, Water, Waste & Construction Category by foreign-owned firms.

Figure 2(b) shows that over the past decade sales for foreign-owned firms in the Manufacturing Category have dominated over the Internationally-Traded Services Category. However, there is clearly a narrowing of the gap between Manufacturing and Internationally-Traded Services over time.

While manufacturing sales visibly dropped in 2009, this category has seen recovery in sales with two consecutive years of growth and with the sales value recorded in 2011 being within 3% of the previous highest value recorded in 2008.

The decline in sales in the Internationally-Traded Services Category in 2009 and 2010 was much less pronounced, and sales by foreign-owned firms in the Internationally-Traded Services Category have now surpassed the previous highest value of sales, measured in 2008, in this category.

2.2.2 Exports

Overall exports in 2011 were up 8% from 2010, and up 56% over the period 2002-2011. Overall 9% of exports are by Irish-owned firms and 91% are by foreign-owned firms. 53% of exports in 2011 were contributed by the Manufacturing Category, 46% by the Internationally-Traded Services Category and 1% by the Energy, Water, Waste & Construction Category, in comparison to 69%, 31% and 0% in 2002 respectively.

Figure 3(a) Export values for Irish-owned firms in the Manufacturing, Internationally-Traded Services & Energy, Water, Waste & Construction categories between 2000 and 2011, for agency firms with ten or more employees.
2.2.2.1 Exports - Irish-Owned Firms

Overall, in 2011, Irish-owned firms accounted for 11% of total exports in the Manufacturing Category, 5% of total exports in the Internationally-Traded-Services Category and 100% of exports in the Energy, Water, Waste & Construction Category in agency assisted firms. This compares with shares of 10%, 5% and 100% respectively in 2002.

In 2011, for Irish-owned firms, 64% of exports were in the Manufacturing Category, down from 80% in 2002; 26% were in the Internationally-Traded-Services Category, up from 18% in 2002 and 10% were in the Energy, Water, Waste and Construction Category up from 2% in 2002.

For Irish-owned companies, exports increased by 18% between 2010 and 2011, and over the period 2002-2011 exports increased by 63%.

Overall for Irish-owned firms:

- the Manufacturing Category showed a growth of 31% over 2002-2011 and a growth of 16% between 2010 and 2011.
- the Internationally-Traded Services Category showed growth in exports of 127% over 2002-2011 and a growth of 14% between 2010 and 2011.
Figure 3(a) shows that over the past decade, exports for Irish-owned firms in the Manufacturing Category have dominated over exports in the Internationally-Traded-Services and Energy, Water, Waste and Construction categories. While there was a narrowing of the gap between the Manufacturing and Internationally-Traded-Services categories in 2009 (primarily due to the significant decline in Manufacturing exports) this narrowing was not sustained in 2011: the Manufacturing Category showed a greater rate of growth in 2010 and 2011 than exports in the Internationally-Traded Services Category. While the Manufacturing Category demonstrated a significant decline in exports in 2009, as can be seen in Figure 3(a), there is a clear indication of the recovery of the Manufacturing Category in terms of exports in 2010 and 2011, and the 2011 value was 7% higher than the previous highest value that was recorded in 2007.

The year on year growth in exports in the Energy, Water, Waste & Construction Category is also evident in Figure 3(a), and it can be seen that there has been substantial gain in terms of the proportion of exports associated with this category over the past decade. Both the Internationally-Traded-Services Category and the Energy, Water, Waste & Construction Category showed a robustness to the recession in terms of exports. This is indicated by the very small decline in exports in the Internationally-Traded Services Category in 2008 and 2009 and the continued growth in the Energy, Water, Waste & Construction Category recorded over the past three years.

2.2.2.2 Exports - Foreign-Owned Firms

Overall, in 2011, foreign-owned firms accounted for 89% of exports in the Manufacturing Category, 95% of exports in the Internationally-Traded Services Category and 0% of exports in the Energy, Water, Waste and Construction Category, in agency assisted firms. This compares with shares of 90%, 95% and 0% respectively in 2002.

In 2011, for foreign-owned firms, 52% of exports were in the Manufacturing Category, down from 67% in 2002; 48% were in the Internationally-Traded Services Category, up from 33% in 2002 and 0% were in the Energy, Water, Waste & Construction Category, the same as in 2002.

For foreign-owned companies, exports increased by 7% between 2010 and 2011, and over the period 2002-2011, exports increased by 56%. Overall for foreign-owned firms:

- the Manufacturing Category showed a growth of 20% in exports over 2002-2011 and a growth of 4% between 2010 and 2011.
- the Internationally-Traded Services Category showed growth of 129% over 2002-2011 and a growth of 11% between 2010 and 2011.
- there is no activity associated with exports in the Energy, Water, Waste & Construction Category by foreign-owned firms.

Figure 3(b) shows that in the earlier part of the time frame reviewed, exports for foreign-owned firms in the Manufacturing Category substantially exceeded exports in the Internationally-Traded Services Category. However, there has been rapid growth in exports by firms in the Internationally-Traded Services industry such that the ratio of Internationally-Traded Services to Manufacturing Category exports by foreign-owned firms has changed from being 33:67 in 2002 to 48:52 in 2011.

While exports from the Manufacturing Category visibly dropped in 2009, this category has seen recovery in exports with two consecutive years of growth, and the exports values...
recorded for 2011 are within 2% of the highest reported value in exports recorded over the period (i.e. in 2008).

The decline in exports in the Internationally-Traded Services Category was much less pronounced. Indeed, exports in 2011 in the Internationally-Traded Services Category are the highest value recorded for exports by foreign-owned firms between 2002 and 2011.

2.2.3 Value Added

Value added in 2011 was up 6% from 2010, and up 28% over the period 2002-2011. Overall 17% of value added was attributed to Irish-owned firms and 83% to foreign-owned firms in 2011. 62% of value added in 2011 was attributed to the Manufacturing Category, 36% to the Internationally-Traded Services Category and 2% to the Energy, Water, Waste & Construction Category, in comparison to 72%, 25% and 3% respectively in 2002.

Figure 4(a) Value added values for Irish-owned firms in the Manufacturing, Internationally-Traded Services and Energy, Water, Waste & Construction categories between 2000 and 2011, for agency firms with ten or more employees.
2.2.3.1 Value Added - Irish-Owned Firms

Overall in 2011, Irish-owned firms accounted for 12% of value added in the Manufacturing Category, 21% of value added in the Internationally-Traded Services Category and 100% of value added in the Energy, Water, Waste & Construction Category, in agency assisted firms. This compares with shares of 15%, 16% and 100% respectively in 2002.

In 2011, for Irish-owned firms, 44% of value added was attributed to the Manufacturing Category as compared to 61% in 2002; 45% of value added was attributed to the Internationally-Traded Services, up from 24% in 2002, and 11% of the value added was attributed to the Energy, Water, Waste & Construction Category, down from 15% in 2002.

For Irish-owned companies, value added increased by 2% between 2010 and 2011, and over the period 2002-2011 value added increased by 26%. Overall for Irish-owned firms:

- the Manufacturing Category showed a decline of 9% over 2002-2011 and a growth of 3% between 2010 and 2011.
- the Internationally-Traded Services Category showed growth in value added of 136% over 2002-011 and a growth of 6% between 2010 and 2011.
- the Energy, Water, Waste & Construction Category showed a decline in value added of 5% over 2002-2011 and a decline of 14% between 2010 and 2011.

Figure 4(a) shows that over the past decade, value added for Irish-owned firms in the Manufacturing Category dominated over the Internationally-Traded Services and Energy, Water, Waste & Construction categories up to 2007. The value added in the Manufacturing
Category showed a year on year decline between 2007 and 2010. While there is evidence of an upturn in the value added in the Manufacturing Category in 2011, this value was 27% lower than the highest value recorded in 2007.

In comparison, the value added for Irish-owned firms in the Internationally-Traded Services Category has continued to show year on year growth over the 2002-2011 time frame, and, in 2011 the value added in the Internationally-Traded Services Category surpassed the value added in the Manufacturing Category for the first time.

The Energy, Water, Waste & Construction Category can be seen to track the value added of the Internationally-Traded Services Category up to 2006, then following some fluctuations between 2006 and 2008, there is a clear decline in value added in this category between 2008 and 2011.

2.2.3.2 Value Added - Foreign Owned Firms

Overall in 2011, foreign-owned firms accounted for 88% of value added in the Manufacturing Category, 79% of value added in the Internationally-Traded Services Category and 0% of value added in the Energy, Water, Waste & Construction Category, in agency-assisted firms. This compares with shares of 85%, 84% and 0% respectively in 2002.

In 2011, 65% of the value added by foreign-owned firms was made up by the Manufacturing Category as compared to 75% in 2002; 35% of value added was made up by Internationally-Traded Services, up from 25% in 2002 and 0% of value added was contributed by the Energy, Water, Waste & Construction Category, as in 2002.

There has been growth in value added by firms in the Internationally-Traded Services Category, such that the ratio of value-added for the Internationally-Traded Services to Manufacturing Category has changed from 25:75 in 2002 to 35:65 in 2011.

For foreign-owned companies, value added increased by 6% between 2010 and 2011, and over the period 2002-2011 value added increased by 28%. Overall for foreign-owned firms:

- the Manufacturing Category showed a growth of 13% in value added over 2002-2011 and a growth of 5% between 2010 and 2011.
- the Internationally-Traded Services Category showed growth of 74% in value added over 2002-2011 and a growth of 9% between 2010 and 2011.
- there was no value added activity associated with Energy, Water, Waste and Construction Category by foreign-owned firms.

Figure 4(b) shows that over the past decade, value added for foreign-owned firms in the Manufacturing Category has exceeded that of the Internationally-Traded Services Category. There has been growth in value added by firms in the Manufacturing Category, particularly since 2006, and value added in this category in 2011 was the highest recorded value over the time period reviewed. In comparison, the value added in the Internationally-Traded Services Category showed a decline in value added from 2007 to 2010, with some recovery in 2011, but with a 2011 value that is 8% lower than the 2007 value (highest value recorded between 2002 and 2011).
Figure 5(a) Employment for Irish-owned firms in the Manufacturing, Internationally-Traded Services and Energy, Water, Waste & Construction categories between 2000 and 2011, for agency firms with ten or more employees.

Figure 5(b) Employment for foreign-owned firms in the Manufacturing, Internationally-Traded Services and Energy, Water, Waste & Construction categories between 2000 and 2011, for agency firms with ten or more employees.
2.2.4 Employment

A short description of the time series of employment performance, as recorded in the ABSEI 2011 survey, is presented for Irish and foreign-owned firms in the subsequent sections. It is noted that the employment figures presented are based on the cohort of agency firms with ten or more employees and that the Forfás Annual Employment Survey is a more accurate reflection of employment across all agency firms. Further analysis of the ABSEI employment data can be found in Appendix 1.

2.2.4.1 Employment - Irish-Owned Firms

Figure 5(a) shows that over the past decade, employment by Irish-owned firms in the Manufacturing Category dominated over the Internationally-Traded Services and Energy, Water, Waste & Construction Categories up to 2007. However, employment has been declining in this category over the past decade, with a drop in 2002 to 2004, followed by a plateau to 2007. The employment in the Manufacturing Category in the period subsequent to 2007 showed a year on year decline. However, there is evidence of a stabilisation of the employment levels in the Manufacturing Category in 2011, though at a level that is 30% lower than the 2002 employment level.

In comparison, employment in Irish-owned firms in the Internationally-Traded Services Category has continued to show year on year growth over the 2002-2011 time frame. So, the ratio of employment in the Internationally-Traded Services Category to employment in the Manufacturing Category has changed from 17:76 in 2002 to 32:60 in 2011.

The employment in the Energy, Water, Waste and Construction Categories can be seen to have increased up to 2006, and then declined slowly after this.

2.2.4.2 Employment - Foreign Owned Firms

Figure 5(b) shows that over the past decade, employment for foreign-owned firms in the Manufacturing Category have dominated over the Internationally-Traded Services and Energy, Water, Waste & Construction categories. However, the employment in the Manufacturing Category has been declining over the past decade. While the employment level of the Manufacturing Category appeared to have reached a plateau in 2004, there was a further drop in 2007 and 2008, and subsequently the employment level again stabilised. In comparison, the employment in foreign-owned firms in the Internationally-Traded Services Category has increased steadily over the past decade.

2.2.5 Direct Expenditure in the Irish Economy

Overall, direct expenditure\(^6\) in the Irish economy in 2011 was up 6% from 2010, and declined 4% over the period 2002-2011. In 2011, 44% of direct expenditure was attributed to Irish-owned firms and 56% to foreign-owned firms. 57% of direct expenditure in the Irish economy in 2011 was in the Manufacturing Category, 38% was by firms in the Internationally-Traded Services Category and 5% by firms in the Energy, Water, Waste & Construction Category. This compares with shares of 61%, 34% and 5% respectively in 2002.

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\(^6\) Direct Expenditure is made up of purchases of payroll expenditure and purchases of Irish-produced materials and services.
Figure 6(a) Direct Expenditure in the Irish Economy by Irish-owned firms in the Manufacturing, Internationally-Traded Services and Energy, Water, Waste & Construction categories between 2000 and 2011, for agency firms with ten or more employees.

Figure 6(b) Direct Expenditure in the Irish Economy by foreign-owned firms in the Manufacturing, Internationally-Traded Services and Energy, Water, Waste & Construction categories between 2000 and 2011, for agency firms with ten or more employees.
2.2.5.1 Direct Expenditure in the Irish Economy - Irish-Owned Firms

In 2011, Irish-owned firms accounted for 55% of direct expenditure in the Irish economy in the Manufacturing Category, 21% in the Internationally-Traded Services Category and 100% of direct expenditure in the Energy, Water, Waste & Construction Category, in agency assisted firms. This compares with shares of 53%, 15% and 100% respectively in 2002.

In 2011, 71% of the direct expenditure by Irish-owned firms was in the Manufacturing Category as compared to 75% in 2002; 19% of direct expenditure was in the Internationally-Traded Services Category, up from 12% in 2002, and 10% was in the Energy, Water, Waste & Construction Category, down from 13% in 2002.

For Irish-owned companies, direct expenditure in the Irish economy increased by 3% between 2010 and 2011, and over the period 2002-2011 direct expenditure decreased by 1%. Overall for Irish-owned firms:

- the Manufacturing Category showed a decline of 7% over 2002-2011 and a growth of 7% between 2010 and 2011 in direct expenditure in the Irish economy.
- the Internationally-Traded Services Category showed growth in direct expenditure in the Irish economy of 56% over 2002-2011 and a growth of 1% between 2010 and 2011.
- the Energy, Water, Waste & Construction Category showed a decline in direct expenditure in the Irish economy by Irish-owned firms of 18% over 2002-2011 and a decline of 19% between 2010 and 2011.

Figure 6(a) shows that over the past decade, direct expenditure in the Irish economy by Irish-owned firms in the Manufacturing Category dominated over the Internationally-Traded Services and Energy, Water, Waste & Construction categories over the 2000 to 2011 period. There was a rapid decline in direct expenditure by firms in the Manufacturing Category between 2007 and 2009. There has been some recovery in expenditure levels between 2009 and 2011, and in 2011, direct expenditure by Irish owned firms in the Manufacturing Category was close to the 2003 level. However, the 2011 value is 15% lower than the highest value recorded for the period (i.e. the 2007 value).

In comparison, the direct expenditure in the Irish economy by Irish-owned firms in the Internationally-Traded Services Category did not decline significantly between 2007 and 2009. Following a small decrease in 2008, the direct expenditure levels by Irish-owned firms have remained approximately constant between 2009 and 2011.

In Figure 6(a) it can be seen that the direct expenditure in the Irish economy by Irish-owned firms in the Energy, Water, Waste & Construction Category effectively tracks the time profile of the direct expenditure in the Manufacturing Category up to 2008. Post 2008, direct expenditure in the Irish economy by Irish-owned firms in the Energy, Water, Waste & Construction Category has continued to decline up to and including 2011. So, while the direct expenditure by firms in this category was higher than that of firms in the Internationally-Traded Services Category between 2002 and 2008, the direct expenditure in the Internationally-Traded Services Category surpassed that of the Energy, Water, Waste & Construction Category in 2010 and remained higher in 2011.

2.2.5.2 Direct Expenditure in the Irish Economy - Foreign-Owned Firms

Overall in 2011, foreign-owned firms accounted for 45% of direct expenditure in the Manufacturing Category, 79% in the Internationally-Traded Services Category and 0% in the
Energy, Water, Waste & Construction Category, of agency assisted firms. This compares to shares of 47%, 85% and 0% respectively in 2002.

In 2011, 46% of direct expenditure by foreign-owned firms was by firms in the Manufacturing Category as compared to 50% in 2002, 54% was by firms in the Internationally-Traded Services, compared to 50% in 2002.

For foreign-owned companies, direct expenditure in the Irish economy has increased by 9% between 2010 and 2011, and over the period 2002-2011 direct expenditure decreased by 6%.

Overall for foreign owned firms:

- the Manufacturing Category showed a decline of 14% in direct expenditure over 2002-2011 and a growth of 4% between 2010 and 2011.
- the Internationally-Traded Services Category showed growth of 2% in direct expenditure in the Irish economy over 2002-2011 and a growth of 14% between 2010 and 2011.
- there was no direct expenditure activity associated with Energy, Water, Waste and Construction Category by foreign firms.

Figure 6(b) shows that over the past decade, direct expenditure for foreign-owned firms in the Manufacturing Category was similar to that in the Internationally-Traded Services Category between 2000 and 2003. From 2003 onwards, direct expenditure in the Internationally-Traded Services Category declined, whilst direct expenditure in the Manufacturing Category demonstrated growth. However, direct expenditure in the Manufacturing Category subsequently declined from 2007 to 2009. This category has shown some recovery in 2010 and 2011, however, the 2011 value was 15% smaller than the highest value recorded over the period (i.e. the value recorded in 2007). In comparison, direct expenditure in the Internationally-Traded Services Category started to increase after 2006, and has continued for the most part to increase up to 2011. This growth lead to the direct expenditure by foreign-owned firms in the Internationally-Traded Services Category, reaching a value in 2011 that was equal to the highest value for the period. Furthermore, the direct expenditure in the Internationally-Traded Services Category exceeded the value of direct expenditure by the Manufacturing Category from 2009 onwards.

2.3 Performance Highlights for Agency Firms in 2011

2.3.1 Summary of 2010-2011 Performance of Key Business Indicators of Agency Firms

Table 2 summarises the 2010-2011 performance for Irish and foreign-owned firms across Manufacturing and Internationally-Traded Services Categories for each of the four key business indicators.
Table 2. Percentage change in performance value between 2010 and 2011 for each of the four key business indicators, for agency firms with ten or more employees.

<table>
<thead>
<tr>
<th>Industrial Category</th>
<th>Ownership Status</th>
<th>2010-2011 Change in Sales</th>
<th>2010-2011 Change in Exports</th>
<th>2010-2011 Change in Value Added</th>
<th>2010-2011 Change in Direct Expenditure in Irish Economy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>Irish-owned</td>
<td>9%</td>
<td>16%</td>
<td>3%</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td>Foreign-owned</td>
<td>4%</td>
<td>4%</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>Internationally-Traded Services</td>
<td>Irish-owned</td>
<td>4%</td>
<td>14%</td>
<td>6%</td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td>Foreign-owned</td>
<td>11%</td>
<td>11%</td>
<td>9%</td>
<td>14%</td>
</tr>
</tbody>
</table>

The key noteworthy features identified from the graphs that were presented in Figures 2-6 and from the information provided in Table 2 are highlighted in this section as a series of key messages.

2.3.2 Messages on Performance of Key Business Indicators for Agency Firms, by Firm Ownership

**Sales Indicator**

There was particularly strong growth in sales between 2010 and 2011 in the Manufacturing Category for Irish-owned firms at 9%, however, the 2011 sales value is still 17% lower than the value recorded in 2007 (highest value for sales between 2002-2011). Furthermore, despite an overall growth of 98% between 2002 and 2011, sales in the Internationally-Traded Services Category, by Irish-owned firms, has been quite static since 2008.

In the Manufacturing Category for foreign-owned firms, there has also been two successive years of sales growth, and the sales in 2011 reached a value that was within 3% of the 2008 value (highest sales recorded over the period reviewed). In the Internationally-Traded Services Category, an 11% growth in sales between 2010 and 2011 for foreign-owned firms resulted in 2011 posting the highest sales value of the 2002-2011 period.

**Exports Indicator**

Particularly strong (double digit) export growth of 16% was recorded in the Manufacturing Category for Irish-owned firms between 2010 and 2011, following on from export growth of 14% between 2009 and 2010. This growth has led to an export value in 2011 that is 7% higher than the previous highest export value (recorded in 2007). Strong growth was also recorded for Irish-owned firms between 2010 and 2011 in the Internationally-Traded Services at 14%, resulting in the highest export value of the 2002-2011 period being achieved in 2011.
In the Manufacturing Category for foreign-owned firms, there has been two successive years of export growth, and the exports in 2011 reached a value that was within 2% of the highest exports recorded over the 2002-2011 time frame reviewed. In the Internationally-Traded Services Category, an 11% growth in exports between 2010 and 2011, for foreign-owned firms, resulted in the highest export value, of the 2002-2011 period, being recorded in 2011.

Value Added Indicator

Value added in the Manufacturing Category for Irish-owned firms demonstrated growth between 2010 and 2011, having been declining since 2007. However, this indicator remains at a value that is 27% below the 2007 value (the highest value recorded over the period reviewed). The value added for Irish-owned firms in the Internationally-Traded Services Category has not shown any year on year decline between 2002 and 2011, with the result that the 2011 value is the highest value recorded over the period reviewed. Furthermore, for Irish-owned firms, the value added of the Internationally-Traded Services Category, surpassed the value added of the Manufacturing Category in 2011.

In the Manufacturing Category for foreign-owned firms, value added has shown year on year growth from 2006 up to 2011, and the highest value over the 2002-2011 period was recorded in 2011. Value added in the Internationally-Traded Services Category has been declining since 2007, but in 2011 has shown growth for the first time since then. However, the 2011 value is 7% lower than the 2007 value (the highest value recorded over the period reviewed).

Direct Expenditure in the Irish Economy Indicator

Growth in direct expenditure in the Irish economy for Irish-owned firms was strongest in the Manufacturing Category at 7% between 2010 and 2011. However, direct expenditure in 2011 in this category (for Irish-owned firms) was 15% lower than in 2007. Internationally-Traded Services Category has remained reasonably static over the 2008-2011 period for Irish-owned firms.

Despite foreign-owned firms in the Manufacturing Category demonstrating growth between 2009 and 2010, and, between 2010 and 2011 (of 0.5% and 4% respectively), this indicator value remains 15% lower than the 2007 value.

Strong growth was recorded for direct expenditure in the Irish economy between 2010 and 2011 for the foreign-owned firms in the Internationally-Traded Services Category at 14%, and the 2011 value posted was the highest value recorded over the 2002-2011 period. From 2009, the absolute value of direct expenditure in the Irish economy has remained higher for the Internationally-Traded Services Category than the Manufacturing Category for foreign-owned firms.

2.3.3 Messages on Performance of Agency Firms by Industry Category

The Manufacturing Category

For both Irish-owned and foreign-owned firms in the Manufacturing Category, Direct Expenditure in the Irish economy demonstrated stabilising/small growth in 2010-2011, but had values in 2011 significantly smaller than the highest value recorded over the 2002-2011 period.

Sales and exports for Irish-owned and foreign-owned firms in the Manufacturing Category also demonstrated similar overall characteristics between 2002 and 2011: a dip in 2009, followed by two years of successive growth. However, the exports for Irish-owned firms in the
Manufacturing Category, was the only case to record a highest value for 2011 (over the period reviewed).

Finally, the behaviour of the value added indicator in the Manufacturing Category was distinctly different for the Irish-owned and the foreign-owned firms: foreign-owned firms demonstrated year on year growth from 2006 and achieved a highest value for the period in 2011. Irish-owned firms showed a 30% decline from 2007-2010, with only 3% recovery in 2010-2011.

The Internationally-Traded Services Category

For both Irish-owned and foreign-owned firms in the Internationally-Traded Services Category, the highest values for many of the business indicators over the 2000-2011 period were recorded in 2011. This is true for sales, and exports. Irish-owned firms in the Internationally-Traded Services Category also recorded the highest level of value added in 2011 over the 2000-2011 period, and foreign-owned firms in this category recorded a value added level just lower than the 2008 value (which was the highest value recorded during in the period 2000-2011).

Foreign-owned firms recorded their highest level of direct expenditure in the Irish economy in 2011 in the Internationally-Traded Services Category, and Irish-owned firms posted a value of direct expenditure in the Irish economy just below the highest value for the 2000-2011 period, which was recorded in 2008.

Growth between 2010 and 2011 was stronger in Internationally-Traded Services than the Manufacturing Category across the key business indicators for foreign-owned firms and for value added for Irish-owned firms. In fact, the increasing importance of the Internationally-Traded Services Category in agency activities can be confirmed by comparing the share of each of the key indicators in the Manufacturing Category and the Internationally-Traded Services Category in 2002 as shown in Figure 7(a) with the share of each key indicator in each of the categories in 2011, as shown in Figure 7(b).
Figure 7(a) Proportion of the total value of each of the five key indicators associated with each of the industry categories (Manufacturing, Internationally-Traded Services, and Energy, Water, Waste & Construction) in 2002, in agency firms with ten or more employees.

Figure 7(b) Proportion of the total value of each of the five key indicators associated with each of the industry categories (Manufacturing, Internationally-Traded Services, and Energy, Water, Waste & Construction) in 2011, in agency firms with ten or more employees.
In comparing Figure 7(a) and 7(b) it can be seen that across the key indicators there is an increase in the share of the activity for the Internationally-Traded Services Category. Between 2002 and 2011, the share of Internationally-Traded Services of agency activities for firms with ten or more employees increased as follows:

- Sales: increased from 29% to 44%
- Exports: increased from 31% to 46%
- Value Added: increased from 25% to 36%
- Employment: increased from 24% to 36%
- Direct Expenditure: increased from 34% to 39%

### 2.3.4 The 2011 High Level Message for Agency Firm Activities

In summary, the analysis of the key business indicators according to Irish and foreign firm ownership and according to Manufacturing and Internationally-Traded Services Categories, highlights that:

- Overall there has been arrest in the decline of the key indicators for both Irish and foreign-owned firms. Indeed for many of the key indicators there has been strong growth both in the Internationally-Traded Services Category and the Manufacturing Category between 2010 and 2011.

- In particular, both Irish and foreign-owned firms in the Internationally-Traded Services Category have demonstrated strong or at least reasonably robust performance over many of the key indicators over the 2002 to 2011 period, and consequently, the International-Traded Services Category has garnered increased importance in the overall activity level of agency firms.
Section 3 Sectoral Performance of Key Business Indicators According to Ownership Status

3.1 Sectoral Performance of Key Indicators for Irish-Owned Agency Firms with Ten or More Employees

Key sectors were identified in the Manufacturing Category (for Irish-owned firms) that made the greatest contributions to the absolute value of each indicator in 2011. Four sectors in the Manufacturing Category were ranked within the top four contributors across four of the five key indicators. These four sectors were selected as the sectors having greatest weightings in the Manufacturing Category, based on Irish-owned firms. Again we emphasise that the indicator values are for agency firms with ten or more employees, and that the Annual Employment Survey data better reflects employment of the total agency base.

Three key sectors were identified in the Internationally-Traded Services Category in a similar manner.

3.1.1 Manufacturing Category - Irish-Owned Firms

The four key sectors (based on Irish-owned firms) identified as having the greatest weightings in the Manufacturing Category were:

- Food, Drink & Tobacco
- Basic and Fabricated Metal Products
- Computer, Electronic & Optical Products
- Machinery & Equipment

3.1.1.1 Food, Drink & Tobacco

Figure 8 illustrates the total contribution in 2002 and 2011 of the Food, Drink & Tobacco sector to the total Manufacturing Category for Irish-owned firms. This sector has increased its share of each of the key indicators between 2002 and 2011, indicating its growing importance in the Manufacturing Category.

Table 3 summarises the time series behaviour of the four key business indicators for the Food, Drink & Tobacco sector. For the four key business indicators, there was positive growth between 2002 and 2011 and between 2010 and 2011. For sales, exports and value added, the 2011 value was close to (within 1%) or higher than the value in 2008, indicating recovery in these indicators for the Food, Drink & Tobacco sector.
Figure 8 Share of key indicators attributed to the Food, Drink & Tobacco sector, in 2002 and 2011, for Irish-owned agency firms with ten or more employees.

Table 3 Key characteristics of the time series of each key business indicator, for Irish-owned agency firms with ten or more employees in the Food, Drink & Tobacco sector.

<table>
<thead>
<tr>
<th></th>
<th>Indicator Growth 2010-2011 (%)</th>
<th>Indicator Growth 2002-2011 (%)</th>
<th>Highest Indicator Value in 2011?</th>
<th>2011 Indicator Value = or &gt; 2008 Indicator Value</th>
<th>Year/Year Indicator Growth from 2008?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food, Drink &amp; Tobacco</td>
<td>Sales</td>
<td>11</td>
<td>12</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Exports</td>
<td>16</td>
<td>37</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Value Added</td>
<td>9</td>
<td>5</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Direct Expenditure in the Irish Economy</td>
<td>10</td>
<td>7</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

3.1.1.2 Basic & Fabricated and Metal Products

Figure 9 illustrates the total contribution in 2002 and 2011 of the Basic & Fabricated Metal Products sector to the total Manufacturing Category for Irish-owned firms. This sector has maintained its share in four of the key indicators in 2011 relative to 2002, with a decline in its share of sales over this period.
Table 4 summarises the time series behaviour of the four key business indicators for the Basic & Fabricated Metal Products sector. The characteristics of the time series vary across the indicators for this sector. The exports indicator is the only indicator that showed growth in absolute terms between 2002 and 2011. The retained level of share of value added and direct expenditure is likely a consequence of greater reductions over 2002-2011 in other sectors in the Manufacturing Category. The retained level of share of exports is likely due to greater absolute growth in exports over other sectors. Finally, the decline in the share of sales is due to greater declines in sales relative to other sectors in the Manufacturing Category.

None of the indicators have demonstrated a return to 2008 levels as of yet, though sales, exports and direct expenditure all demonstrated positive growth between 2010 and 2011 and so are moving in the desired direction.

Figure 9 Share of key indicators attributed to the Basic & Fabricated Metal Products sector, in 2002 and 2011, for Irish-owned agency firms with ten or more employees.
Table 4 Key characteristics of the time series of each key business indicator, for Irish-owned agency firms with ten or more employees in the Basic & Fabricated Metal Products sector.

<table>
<thead>
<tr>
<th>Basic &amp; Fabricated Metal Products</th>
<th>Indicator Growth 2010-2011 (%)</th>
<th>Indicator Growth 2002-2011 (%)</th>
<th>Highest Indicator Value in 2011?</th>
<th>2011 Indicator Value ≈ or &gt; 2008 Indicator Value</th>
<th>Year/Year Indicator Growth from 2008?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>4</td>
<td>-15</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Exports</td>
<td>23</td>
<td>14</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Value Added</td>
<td>-1</td>
<td>-15</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Direct Expenditure in the Irish Economy</td>
<td>1</td>
<td>-14</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

3.1.1.3 Computer, Electronic & Optical Products

Figure 10 illustrates the total contribution in 2002 and 2011 of the Computer, Electronic & Optical Products to the total Manufacturing Category for Irish-owned firms. This sector has increased or maintained its share of each of the key indicators between 2002 and 2011, indicating its growing importance in the Manufacturing Category.

Table 5 summarises the time series behaviour of the four key business indicators for the Computer, Electronic & Optical sector. The sales, exports, and value added indicators for this sector showed significant growth over the 2002 and 2011 period and zero or positive growth between 2010 and 2011. Indeed, both exports and value added reached their highest values over the 2002-2011 period in 2011. For the direct expenditure indicator, there was a decline in absolute value terms over the 2002-2011 and the 2010-2011 periods. The increased share of the Manufacturing Category contributed by the Computer, Electronic & Optical Products sector in the direct expenditure indicator is likely a consequence of larger reductions of absolute values for this indicator in other sectors in the Manufacturing Category.
Figure 10 Share of key indicators attributed to the Computer, Electronic & Optical Products sector, for Irish-owned agency firms with ten or more employees.

Table 5 Key characteristics of the time series of each key business indicator, for Irish-owned agency firms with ten or more employees, in the Computer, Electronic & Optical Products sector.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>0</td>
<td>23</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Exports</td>
<td>0</td>
<td>52</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Value Added</td>
<td>1</td>
<td>104</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Direct Expenditure in the Irish Economy</td>
<td>-1</td>
<td>-2</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
3.1.1.4 Machinery & Equipment

Figure 11 illustrates the total contribution in 2002 and 2011 of the Machinery & Equipment sector to the total Manufacturing Category for Irish-owned firms. This sector has increased its share of each of the key indicators between 2002 and 2011, indicating its growing importance in the Manufacturing Category.

Table 6 summarises the time series behaviour of the four key business indicators for the Machinery & Equipment sector. Sales, exports, value added and direct expenditure recorded positive growth between 2002 and 2011 and between 2002 and 2011. Exports demonstrated particularly strong growth of 116% between 2002 and 2011, and the absolute value of exports was higher in 2011 than at any other time between 2002 and 2011.

Figure 11 Share of key indicators attributed to the Machinery & Equipment sector, for Irish-owned agency firms with ten or more employees.
Table 6 Key characteristics of the time series of each key business indicator, for Irish-owned agency firms with ten or more employees in the Machinery & Equipment sector.

<table>
<thead>
<tr>
<th>Machinery &amp; Equipment</th>
<th>Indicator Growth 2010-2011 (%)</th>
<th>Indicator Growth 2002-2011 (%)</th>
<th>Highest Indicator Value in 2011?</th>
<th>2011 Indicator Value = or &gt; 2008 Indicator Value</th>
<th>Year/Year Indicator Growth from 2008?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>15</td>
<td>26</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Exports</td>
<td>28</td>
<td>116</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Value Added</td>
<td>13</td>
<td>22</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Direct Expenditure in the Irish Economy</td>
<td>8</td>
<td>15</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

3.1.1.5 Summary of Sector Performance for Irish-Owned Agency Firms with Ten or More Employees in the Manufacturing Category

The Food, Drink & Tobacco, Computer, Electronic & Optical Products, and Machinery & Equipment sectors all showed an increased share of the key indicator values (for Irish-owned firms in the Manufacturing Category) in 2011 over the 2002 share. The Basic & Fabricated Metal Products sector demonstrated a decrease or zero change in the share of the key indicators.

There was a mixed set of performance across the sectors in terms of the change in absolute values of the key business indicators between 2002 and 2011, though the majority of indicators grew positively in each sector between 2010 and 2011. None of the key business indicators in these sectors demonstrated year on year growth (from 2008), however, indicators in some sectors have demonstrated recovery to 2008 or, superseded 2008 levels. Exports in particular have shown strong performance, with two of the sectors (Food, Drink & Tobacco, and Machinery & Equipment) reporting levels of exports in 2011 which were the highest levels that have been recorded over the 2002 to 2011 period. The Basic & Fabricated Metal Products sector did not record a highest level of exports in 2011, but the sector did demonstrate overall positive growth in exports between 2002 and 2011 and 2010 and 2011. The Computer, Electronics & Optical Products sector demonstrated a value in 2011, close to that of the 2008 value.

So overall, the performance of the key business indicators across these sectors appears to be positive in 2011 relative to 2010, with a number of indicators returning to 2008 levels (or better than 2008 levels) of performance in 2011.

It is also worthy to note that there were sectors that contributed a much lower share to the Manufacturing Category for Irish-owned firms (relative to the top four sectors identified) but which have some positive characteristics in terms of key indicator performance. Medical Device Manufacturing and the Transport & Equipment sectors demonstrated positive growth between 2002 and 2011 and 2010 and 2011 in at least three key indicators. Furthermore, the Medical Device Manufacturing sector demonstrated year on year growth from 2008 in the
sales, exports and value added variables and reached the highest value over the 2002 to 2011 time frame in sales, exports, employment and direct expenditure.

3.1.2 Internationally-Traded Services Category - Irish-Owned Firms

The three key sectors (for Irish-owned firms) identified as having the greatest weighting in the Internationally-Traded Services Category were:

- Computer Consultancy
- Financial Services
- Business Services

3.1.2.1 Computer Consultancy

Figure 12 illustrates the contribution in 2002 and 2011 of the Computer Consultancy sector to the total Internationally-Traded Services Category for Irish-owned firms. It can be seen that the share contributed by this sector to the key indicator values, has declined between 2002 and 2011.

Table 7 summarises the time series behaviour of the four key business indicators for the Computer Consultancy sector. Sales, exports, value added and direct expenditure in the Irish economy recorded positive growth between 2002-2011 and between 2010-2011. Exports demonstrated particularly strong sales of 49% between 2002 and 2011, and the absolute value of exports sales was higher in 2011 than at any other time between 2002 and 2011.

So while strong performance is recorded for the Computer Consultancy sector across many of the key business indicators, the growth in absolute value terms must be lower than growth across other sectors of the Internationally-Traded Services Category. This results in an overall decline between 2002 and 2011 in the share of Internationally-Traded services associated with the Computer Consultancy sector.
Figure 12 Share of key indicators attributed to the Computer Consultancy sector, in 2002 and 2011, for Irish-owned agency firms with ten or more employees.

Table 7 Key characteristics of the time series of each key business indicator, for Irish-owned agency firms with ten or more employees in the Computer Consultancy sector.

<table>
<thead>
<tr>
<th>Computer Consultancy</th>
<th>Indicator Growth 2010-2011 (%)</th>
<th>Indicator Growth 2002-2011 (%)</th>
<th>Highest Indicator Value in 2011?</th>
<th>2011 Indicator Value = or &gt; 2008 Indicator Value</th>
<th>Year/Year Indicator Growth from 2008?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>12</td>
<td>47</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Exports</td>
<td>17</td>
<td>49</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Value Added</td>
<td>13</td>
<td>52</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Direct Expenditure in the Irish Economy</td>
<td>9</td>
<td>25</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
3.1.2.2 Financial Services

Figure 13 illustrates the contribution in 2002 and 2011 of the Financial Services sector to the total Internationally-Traded Services Category for Irish-owned firms. This sector has increased its share of each of the key indicators between 2002 and 2011, indicating its growing importance in the Internationally-Traded Services Category.

Table 8 summarises the time series behaviour of the four key business indicators for the Financial Services sector. All indicators recorded strong positive growth between 2002 and 2011 and between 2002 and 2011. Highest values of the 2002-2011 period were recorded for each of the indicators in 2011, and year on year growth throughout this period was observed for sales and exports. Thus, this sector has shown a strong robustness during the economic crisis, and an increased level of importance in the Internationally-Traded services Category in 2011 over 2002. This increased importance is due, at least in part, to the growth in the absolute values of the indicators.

Figure 13 Share of key indicators attributed to the Financial Services sector, in 2002 and 2011, for Irish-owned agency firms with ten or more employees.
Table 8 Key characteristics of the time series of each key business indicator, for Irish-owned agency firms with ten or more employees in the Financial Services sector.

<table>
<thead>
<tr>
<th>Financial Services</th>
<th>Indicator Growth 2010-2011 (%)</th>
<th>Indicator Growth 2002-2011 (%)</th>
<th>Highest Indicator Value in 2011?</th>
<th>2011 Indicator Value = or &gt; 2008 Indicator Value</th>
<th>Year/Year Indicator Growth from 2008?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>13</td>
<td>221</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Exports</td>
<td>22</td>
<td>203</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Value Added</td>
<td>12</td>
<td>206</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
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<td>7</td>
<td>245</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

3.1.2.3 Business Services

Figure 14 illustrates the contribution in 2002 and 2011 of the Business Services sector to the total Internationally-Traded Services Category for Irish-owned firms. This sector has increased its share of exports, value added and employment between 2002 and 2011, and reduced its share of sales and direct expenditure in the Irish economy.

Table 9 summarises the time series behaviour of the four key business indicators for the Business Services sector. All indicators recorded strong positive growth between 2002 and 2011, whereas only exports and employment recorded positive growth between 2010 and 2011. A highest value over the 2002-2011 period was recorded for exports. The growth in absolute values of the indicators between 2002 and 2011 has lead, at least in part, to the increased weightings for this sector of exports and value added in the Manufacturing Category.
Figure 14 Share of key indicators attributed to the Business Services sector, in 2002 and 2011, for Irish-owned agency firms with ten or more employees.

![Graph showing the share of key indicators for the Business Services sector.](image)

Table 9 Key characteristics of the time series of each key business indicator, for Irish-owned agency firms with ten or more employees in the Business Services sector.

<table>
<thead>
<tr>
<th>Business Services</th>
<th>Indicator Growth 2010-2011 (%)</th>
<th>Indicator Growth 2002-2011 (%)</th>
<th>Highest Indicator Value in 2011?</th>
<th>2011 Indicator Value ≥ or &gt; 2008 Indicator Value</th>
<th>Year/Year Indicator Growth from 2008?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>-6</td>
<td>71</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Exports</td>
<td>7</td>
<td>285</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Value Added</td>
<td>-3</td>
<td>169</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Direct Expenditure in the Irish Economy</td>
<td>-9</td>
<td>39</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
3.1.2.4 Summary of Sector Performance for Irish-Owned Agency Firms with Ten or More Employees, in the Internationally-Traded Services Category

The performance of the three highest impact sectors in the Internationally-Traded Services Category all behaved differently with respect to the change in their share of the key indicators between 2002 and 2011. The Computer Consultancy sector demonstrated a decline in share across all key indicators while the Financial Services sector demonstrated an increase in share across all key indicators. The Business Services Category performance was mixed, with some key indicators recording an increase in share, and some key indicators a decline in share.

Positive growth between 2010 and 2011 was recorded for all key business indicators in the Computer Consultancy sector and for all key business indicators between 2002 and 2011. In 2011, this sector recorded its highest sales, exports and value added values of the 2002-2011 period.

The Financial Services recorded its highest key business indicator values over the 2002-2011 period, in 2011, for all indicators, and demonstrated positive growth across all key business indicators between 2002 and 2011 and between 2010 and 2011. Year on year growth in sales and exports was observed between 2002 and 2011.

In comparison the Business Services sector demonstrated the highest recorded value of exports values over the 2002-2011 period, in 2011. Positive growth in all key business indicators was recorded between 2002 and 2011 and positive growth for exports between 2010 and 2011. Year on year growth in exports was also observed for this indicator over the 2002-2011.

Thus, the three highest impact sectors in the Internationally-Traded Services Category (for Irish-owned firms) all showed strong performance across most of the key business indicators between 2002 and 2011.

3.2 Sectoral Performance of Key Business Indicators for Foreign-Owned Agency Firms with Ten or More Employees

Key sectors were identified in the Manufacturing Category (for foreign-owned firms) that made the highest contributions to the absolute value of each indicator in 2011. Four sectors in the Manufacturing Category were ranked within the list of top four contributors for all of the five key indicators. These four sectors were selected as the sectors having greatest weighting in the Manufacturing Category, based on foreign-owned firms.

Three key sectors were identified in the Internationally-Traded Services Category in a similar manner.
3.2.1 Manufacturing Category - Foreign-Owned Firms

The four key sectors (for foreign-owned firms) identified as having the greatest weightings in the Manufacturing Category, were:

- Food, Drink & Tobacco
- Chemicals
- Computer, Electronic & Optical Products
- Medical Device Manufacturing

3.2.1.1 Food, Drink & Tobacco

Figure 15 shows the contribution in 2002 and 2011 for the Food, Drink & Tobacco sector to the total Manufacturing Category for foreign-owned firms, by indicator. This sector has increased or maintained its share in each of the key indicators between 2002 and 2011, thus indicating increased importance in the Manufacturing Category in 2011.

Table 10 summarises the time series behaviour of the four business indicators for the Food, Drink & Tobacco sector. In absolute terms, sales, exports, value added and direct expenditure grew in this sector between 2002 and 2011 and sales, exports and value added declined between 2010 and 2011. None of the indicators demonstrated year on year growth, or reached a value in 2011 that was higher than the 2008 value. This indicates that the Food, Drink & Tobacco sector has not recovered fully to 2008 performance as of yet. Increases in share for this sector of the total category employment are likely a consequence of greater absolute declines across the other sectors rather than due to growth in the Food, Drink & Tobacco sector. Indeed the increased importance of the Food, Drink & Tobacco sectors in the Manufacturing Category can be related to both the increases in absolute indicator values, but also the reduction across the indicators in the Computer Electronic and Optical Products sector in 2009 which was a consequence of the reassignment of firm activities from this sector to sectors in the Internationally-Traded Services Category.
Figure 15 Share of key indicators attributed to the Food, Drink & Tobacco sector, in 2002 and 2011, for foreign-owned agency firms with ten or more employees.

Table 10 Key characteristics of the time series of each key business indicator, for foreign owned agency firms with ten or more employees, in the Food, Drink & Tobacco sector.

<table>
<thead>
<tr>
<th>Food, Drink &amp; Tobacco</th>
<th>Indicator Growth 2010-2011 (%)</th>
<th>Indicator Growth 2002-2011 (%)</th>
<th>Highest Indicator Value in 2011?</th>
<th>2011 Indicator Value = or &gt; 2008 Indicator Value</th>
<th>Year/Year Indicator Growth from 2008?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>-1</td>
<td>26</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Exports</td>
<td>-1</td>
<td>66</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Value Added</td>
<td>-19</td>
<td>12</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Direct Expenditure in the Irish Economy</td>
<td>2</td>
<td>9</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
3.2.1.2 Chemicals

Figure 16 illustrates the total contribution in 2002 and 2011 of the Chemicals sector to the total Manufacturing Category for foreign-owned firms. This sector demonstrates an increased or maintained share in each of the five key indicators in 2011 relative to 2002, indicating a growing importance of the Chemicals sector in the Manufacturing Category of foreign-owned firms.

Table 11 summarises the time series behaviour of the four key business indicators for the Chemicals sector. This sector shows strong performance in terms of absolute growth between 2002-2011 and 2010-2011 across sales, exports, value added and direct expenditure. Indeed, sales, exports, value added and direct expenditure recorded values greater than 2008, in 2011. In addition, the sales, exports and value added demonstrated year on year growth between 2008 and 2011 and values recorded in 2011 were the highest values recorded over the 2002 to 2011 period.

Thus, overall the Chemicals sector has demonstrated strong performance. The increased importance of Chemicals in the Manufacturing Category can be related to both the increases in absolute key business indicator values, but also the significant reduction across the indicators in the Computer Electronic and Optical Products sector in 2009 which was a consequence of the reassignment of firm activities from this sector to sectors in the Internationally-Traded Services Category.

Figure 16 Share of key indicators attributed to the Chemicals sector, in 2002 and 2011, for foreign-owned agency firms with ten or more employees.
Table 11 Key characteristics of the time series of each key business indicator, for foreign-owned agency firms with ten or more employees, in the Chemicals sector.

<table>
<thead>
<tr>
<th>Chemicals</th>
<th>Indicator Growth 2010-2011 (%)</th>
<th>Indicator Growth 2002-2011 (%)</th>
<th>Highest Indicator Value in 2011?</th>
<th>2011 Indicator Value ≈ or &gt; 2008 Indicator Value</th>
<th>Year/Year Indicator Growth from 2008?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
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<td>50</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Exports</td>
<td>4</td>
<td>50</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Value Added</td>
<td>10</td>
<td>13</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Direct Expenditure in the Irish Economy</td>
<td>4</td>
<td>11</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

3.2.1.3 Computer, Electronic & Optical Products

Figure 17 illustrates the total contribution in 2002 and 2011 of the Computer, Electronic & Optical Products to the total Manufacturing Category for foreign-owned firms. The share of each of the key indicators between 2002 and 2011 has decreased in this sector, with particularly strong decline in sales and exports. This change in share is primarily a consequence of the reassignment of activities in the Manufacturing Category to the Internationally-Traded Services Category in 2009\(^7\), and so it is more pertinent to focus on the behaviour of the indicators between 2009 and 2011 for this sector.

Table 12 summarises the time series behaviour of the four key business indicators for the Computer, Electronic & Optical sector. Between 2010 and 2011, sales, exports and direct expenditure all demonstrated growth in absolute values, while the value added variable posted a decline. Sales and exports both demonstrated year on year growth between 2009 and 2011. The 2011 exports, sales and direct expenditure values in 2011 were similar to the values in 2009.

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\(^7\) There was no backwards calculation of this reassignment for the previous years, as the reassignment was carried out based on evolution of firm activities.
Figure 17 Share of key indicators attributed to the Computer, Electronic & Optical Products sector, in 2002 and 2011, for foreign-owned agency firms with ten or more employees.

Table 12 Key characteristics of the time series of each key business indicator, for foreign-owned agency firms with ten or more employees, in the Computer, Electronic & Optical Products sector*

<table>
<thead>
<tr>
<th>Computer, Electronics &amp; Optical Products</th>
<th>Indicator Growth 2010-2011 (%)</th>
<th>Indicator Growth 2002-2011 (%)</th>
<th>Highest Indicator Value in 2011 (range 2009-2011)?</th>
<th>2011 Indicator Value = or &gt; 2009 Indicator Value</th>
<th>Year/Year Indicator Growth from 2009?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>2</td>
<td>-45</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Exports</td>
<td>2</td>
<td>-43</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Value Added</td>
<td>-4</td>
<td>-4</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Direct Expenditure in the Irish Economy</td>
<td>6</td>
<td>-52</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
3.2.1.4 Medical Device Manufacturing

Figure 18 illustrates the contribution in 2002 and 2011 of the Medical Device Manufacturing sector to the total Manufacturing Category for foreign-owned firms. This sector has increased its share of each of the business indicators between 2002 and 2011, indicating its growing importance in the Manufacturing Category, particularly in employment.

Table 13 summarises the time series behaviour of the four business indicators for the Medical Device Manufacturing sector. Positive growth in absolute values of each of the indicators was recorded in the sector between 2002 and 2011 and between 2010 and 2011. Furthermore, sales, exports, value added and direct expenditure all demonstrated year on year growth between 2008 and 2011 and posted their highest values for the 2002-2011 period in 2011.

The increased importance of the Medical Devices Manufacturing sector in the Manufacturing Category can be related to both the increases in absolute indicator values, but also the significant reduction across the indicators in the Computer Electronic & Optical Products sector that was a consequence of the reassignment of firm activities from this sector to sectors in the Internationally-Traded Services Category.

Figure 18 Share of key indicators attributed to the Medical Device Manufacturing sector, in 2002 and 2011, for foreign-owned agency firms, with ten or more employees.
Table 13 Key characteristics of the time series of each key business indicator, for foreign-owned agency firms with ten or more employees, in the Medical Device Manufacturing sector.

<table>
<thead>
<tr>
<th>Medical Device Manufacturing</th>
<th>Indicator Growth 2010-2011 (%)</th>
<th>Indicator Growth 2002-2011 (%)</th>
<th>Highest Indicator Value in 2011?</th>
<th>2011 Indicator Value ≥ or &gt; 2008 Indicator Value</th>
<th>Year/Year Indicator Growth from 2008?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>8</td>
<td>61</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Exports</td>
<td>8</td>
<td>62</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Value Added</td>
<td>11</td>
<td>57</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Direct Expenditure in the Irish Economy</td>
<td>6</td>
<td>44</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

3.2.1.5 Summary of Sector Performance for Foreign-Owned Agency Firms with Ten or More Employees in the Manufacturing Category

The majority of indicators in three of the four highest impact sectors in the Manufacturing Category for foreign-owned firms demonstrated positive growth in their share of the Manufacturing Category value between 2002 and 2011. It was not useful to complete analysis on the 2002-2011 time frame for the fourth sector (Computer, Electronic & Optical Products).

Three of the four sectors demonstrated highest value indicators in 2011:

- Medical Device Manufacturing sector: four indicators achieved their highest values in 2011 (based on the 2002-2011 period): sales, exports, value added and direct expenditure.
- Chemicals sector: three indicators achieved their highest value in 2011 (based on the 2002-2011 period): sales, exports, and value added.

Three of the four sectors (Food, Drink & Tobacco, Chemicals and Medical Device Manufacturing) continued to grow in terms of importance in the Manufacturing Category. However, despite the growth in absolute value of many of the indicators in each sector between 2002 and 2011, the increases in shares observed are also a consequence of the reassignment of firm activities from the Computer, Electronic & Optical Products sector in 2009, to sectors in the Internationally-Traded Services Category.

Medical Devices Manufacturing and Chemicals have been quite robust over time in terms of sales, exports and value added performance.
While the Food, Drink & Tobacco sector maintained or increased its share of the business indicators in going from 2002 to 2011, none of the indicators demonstrated year on year growth, or reached a value in 2011 that was higher than the 2008 value. This indicates that the Food, Drink & Tobacco sector has not recovered to 2008 performance as of yet.

It is also worthy to note that there are a number of sectors that have a much lower share of contribution to the Manufacturing Category for foreign-owned firms but which have some positive characteristics in terms of indicator performance. Agriculture, Fishing, Mining & quarrying, Rubber & Plastics and Basic & Fabricated Materials sectors all demonstrated positive growth between 2002-2011 and 2010-2011, in at least three key indicators.

3.2.2 Internationally-Traded Services Category - Foreign-Owned Firms

The three key sectors (for foreign-owned firms) identified as having the greatest weightings in the Internationally-Traded Services Category were:

- Computer Programming
- Computer Consultancy
- Computer Facilities Management

3.2.2.1 Computer Programming

Figure 19 illustrates the total contribution in 2002 and 2011 of the Computer Programming sector to the total Internationally-Traded Services Category for foreign-owned firms. It can be seen that the share contributed by this sector to the Internationally-Traded Services Category for each key indicator has declined between 2002 and 2011.

Table 14 summarises the time series behaviour of the four key business indicators for the Computer Programming sector. Sales, exports and value added all recorded positive growth between 2002 and 2011 and between 2002 and 2011. Indeed for the sales, exports and value added, the absolute values in 2011 were the highest recorded over the 2002 and 2011 period, and for value added there was year on year growth between 2008 and 2011.

The value in direct expenditure in the Irish economy was smaller in 2011 than in 2002, however, growth was observed in this indicator between 2010-2011, and the 2011 value was close to that of the 2008 value.

Strong performance was recorded for the Computer Programming sector across many of the business indicators. However, the absolute growth of the indicators in this sector was less than that in other sectors of the Internationally-Traded Services Category, thus resulting in the overall decline between 2002 and 2011 in its share of Internationally-Traded Services over the period.
Figure 19 Share of key indicators attributed to the Computer Programming sector, in 2002 and 2011, for foreign-owned agency firms with ten or more employees.

Table 14 Key characteristics of the time series of each key business indicator, for foreign-owned agency firms with ten or more employees in the Computer Programming sector.

<table>
<thead>
<tr>
<th>Computer Programming</th>
<th>Indicator Growth 2010-2011 (%)</th>
<th>Indicator Growth 2002-2011 (%)</th>
<th>Highest Indicator Value in 2011?</th>
<th>2011 Indicator Value = or &gt; 2008 Indicator Value</th>
<th>Year/Year Indicator Growth from 2008?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>12</td>
<td>40</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>Exports</td>
<td>12</td>
<td>40</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Value Added</td>
<td>9</td>
<td>28</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Direct Expenditure in the Irish Economy</td>
<td>15</td>
<td>-12</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
3.2.2.2 Computer Consultancy

Figure 20 illustrates the total contribution in 2002 and 2011 of the Computer Consultancy sector to the total Internationally-Traded Services Category for foreign-owned firms. Most of the indicators demonstrate a greater share in 2011 over 2002. Employment indicates a small decline in share between 2002 and 2011.

Table 15 summarises the time series behaviour of the four business indicators for the Computer Consultancy sector. Positive growth in absolute values of all of the key business indicators was recorded between 2002 and 2011 and between 2002 and 2011. The decline in share of the Internationally-Traded Services Category for value added must be a consequence of lower absolute growth between 2002 and 2011 than occurred in other sectors for these indicators.

Highest values of the 2002-2011 period were recorded for four of the indicators in 2011 - sales, exports and direct expenditure.

We note that reassignments between the Computer, Electronic & Optical Products sector and the Computer Consultancy sector in 2009, will have resulted in a boost to the share of this sector and also the key business indicators.

Figure 20 Share of key indicators attributed to the Computer Consultancy sector, in 2002 and 2011, for foreign-owned agency firms with ten or more employees.
Table 15 Key characteristics of the time series of each key business indicator, for foreign-owned agency firms with ten or more employees, in the Computer Consultancy sector.

<table>
<thead>
<tr>
<th>Computer Consultancy</th>
<th>Indicator Growth 2010-2011 (%)</th>
<th>Indicator Growth 2002-2011 (%)</th>
<th>Highest Indicator Value in 2011?</th>
<th>2011 Indicator Value ≈ or &gt; 2008 Indicator Value</th>
<th>Year/Year Indicator Growth from 2008?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>24</td>
<td>423</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>Exports</td>
<td>24</td>
<td>607</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Value Added</td>
<td>27</td>
<td>155</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Direct Expenditure in the Irish Economy</td>
<td>18</td>
<td>89</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

3.2.2.3 Computer Facilities Management

Figure 21 illustrates the total contribution in 2002 and 2011 of the Computer Facilities Management sector to the total Internationally-Traded Services Category for foreign-owned firms. This sector has increased its share of all of the key indicators except employment between 2002 and 2011.

Table 16 summarises the time series behaviour of the four key business indicators for the Computer Facilities Management sector. All indicators recorded positive growth between 2002 and 2011 and 2010-2011, with growths of over 500% and 600% measured for sales and exports respectively between 2002 and 2011.
Figure 21 Computer Facilities Management sector as a percentage of the total Internationally-Traded Services Category for each of the key indicators, in 2002 and 2011, for foreign-owned agency firms with ten or more employees.

Table 16 Key characteristics of the time series of each key business indicator, for foreign-owned agency firms with ten or more employees, in the Computer Facilities Management sector.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>Sales</td>
<td>3</td>
<td>535</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Exports</td>
<td>3</td>
<td>655</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Value Added</td>
<td>4</td>
<td>242</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Direct Expenditure in the Irish Economy</td>
<td>11</td>
<td>19</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
3.2.2.4 Summary of Sector Performance for Foreign-Owned Agency Firms in the Internationally-Traded Services Category

The performance of the three highest impact sectors in the Internationally-Traded Servicers Category all behaved differently with respect to the change in their share of key indicators between 2002 and 2011. The Computer Programming sector demonstrated a decline in share across all indicators while the Computer Consultancy sector demonstrated an increase in sales and exports and a decline in value added and direct expenditure. The Computer Facilities Management sector demonstrated an increase in share in all key indicators except employment.

However, the three sectors acted similarly in terms of the behaviour of their change in absolute values in 2011 relative to 2002: across all key business indicators in each sector there was positive growth between 2002 and 2011 and for the most part between 2010 and 2011 also. Thus, in instances where a decline in the share of the indicator values in a particular sector was observed, this is likely to be due to larger absolute value increase in indicators in other sectors.

The sales and exports in Computer Programming and Computer Consultancy reached their highest values (over the 2002-2011 time frame) in 2011, as did the value added indicator in the Computer Programming sector.

For the Computer Consultancy sector, highest values of the 2002-2011 period were recorded for three of the indicators in 2011 - sales, exports and direct expenditure. This sector demonstrated a strong performance relative to 2008.
Section 4 Spotlight on Purchases of Irish Produced Materials and Services

The performance of direct expenditure in the Irish economy has been analysed in detail in sections 2 and 3 of this report. However, direct expenditure in the Irish economy is made up of a number of sub-components, namely payroll expenditure and purchases of Irish-produced materials and services. Hence, it is a more complex indicator to interpret than the other three business indicators. It is thus of interest to develop a deeper understanding of direct expenditure in the Irish economy, in particular, we focus on the purchases of Irish-produced materials and services.

4.1 Materials and Services Produced in Ireland and Purchased by Irish-Owned Agency Firms with Ten or More Employees

4.1.1 Materials Produced in Ireland and Purchased by Irish-Owned Firms

In 2011, Irish-owned firms accounted for 38% of materials purchases across all firms in the Manufacturing Category, the Energy, Waste, Water & Construction Category accounted for 100%, and the Internationally-Traded Services accounted for 9%.

Irish-owned firms were responsible for the purchase of the majority of Irish-produced materials in the total Manufacturing Category (composed of Irish and foreign-owned) in 2011, at 77%, and all of the Energy, Waste, Water & Construction Category. They accounted for 42% of the purchase of Irish-produced materials in the Internationally-Traded Services Category in 2011.

Over the period 2002 to 2011, purchases of materials produced in Ireland by Irish-owned firms in the Manufacturing Category declined by 4%, however, between 2010 and 2011 there was an increase of 11% in purchases of materials produced in Ireland.

For the Internationally-Traded Services Category, there was growth of 12% in purchase of materials produced in Ireland between 2002 and 2011, and a decline of 4% between 2010 and 2011.

In both the Manufacturing Category and the Internationally-Traded Services Category, a small number of sectors accounted for a large proportion of the category value of Irish-produced materials purchases. The Food, Drink & Tobacco sector in the Manufacturing Category dominates the purchase of Irish-produced materials purchased by Irish-owned firms, accounting for 83%. In the Internationally-Traded Services Category, Business Services followed by Computer Consultancy and Other Services account for 40%, 30% and 15% respectively of Irish-produced materials purchased by Irish-owned firms.

The share of purchases of Irish-produced materials as a proportion of the total materials purchased by all Irish-owned firms declined between 2002 and 2011 by 11%, and by 3% between 2010 and 2011. The share of Irish produced materials purchased as a percentage of the total materials purchased by Irish-owned firms over the period 2000 to 2011 is shown in Figure 22 for the Manufacturing and Internationally-Traded Services Category separately.
In the Manufacturing Category between 2002 and 2011 there has been a decline of 7% in the
share of purchases of Irish produced materials as a proportion of the total materials
purchased, and a decline of 1% between 2010 and 2011.

In the Internationally-Traded Services Category between 2002 and 2011 there has been a
decline of 4% in the share of purchases of Irish-produced materials as a proportion of total
materials purchased. Between 2010 and 2011, the decline was 3%.

**Figure 22** The share of Irish-produced materials purchased as a percentage of the total
materials purchased by Irish-owned firms over the period 2000 to 2011, for the
Manufacturing Category and the Internationally-Traded Services Category.

![Graph showing the share of Irish-produced materials purchased as a percentage of total
materials purchased by Irish-owned firms over the period 2000 to 2011.]

Figure 23(a) and 23(b) show sectoral level views of the change in the share of purchases of
Irish-produced materials by Irish-owned firms in the Manufacturing and Internationally-Traded
Services Categories with respect to total materials purchased in each Category, for the 2002-
2011 and the 2010-2011 period.

For Irish-owned firms in the Manufacturing Category, only one sector demonstrated an
increase in Irish-produced materials purchased as a share of total materials purchased
between 2002 and 2011—the Medical Device Manufacturing sector. Five sectors demonstrated
more than a 40% decline between 2002 and 2011. However, five sectors demonstrated some
growth in share between 2010 and 2011.

For Irish-owned firms in the Internationally-Traded Services Category, the change in the level
of Irish-produced materials purchased as a share of total materials purchased varied from
sector to sector as can be seen in Figure 23(b), both between 2002 and 2011 and 2010 and
2011.

It appears that Irish owned firms are the dominant purchasers of Irish-produced materials in
the Manufacturing Category, however, the proportion of materials sourced from Irish-
producers of materials as a percentage of total materials purchased has declined between 2010 and 2011 and between 2002 and 2011. Declines in the share of Irish-produced materials as a proportion of all materials purchased by Irish-owned firms was also observed for the Internationally-Traded Services Category.

Figure 23 (a) Change in the share of purchases of Irish-produced materials by Irish-owned firms in the Manufacturing Category as a proportion of total materials purchased, over the 2002-2011 period and the 2010-2011 period.
4.1.2 Services Produced in Ireland and Purchased by Irish-Owned Firms

In 2011, foreign-owned firms accounted for 10% of services purchased across all firms in the Manufacturing Category, and 3% of services purchased across all firms in the Internationally-Traded Services.

In 2011, Irish-owned firms accounted for 38% of Irish produced-services purchased across all firms in the Manufacturing Category, accounted for 100%, and 10% respectively in the Energy, Water, Waste & Construction Category and Internationally-Traded Services.

In 2011, Irish-owned firms in the Manufacturing Category accounted for 53% of the total value of purchases of services produced in Ireland by Irish-owned firms, the Energy, Waste, Water & Construction Category accounted for 21%, and the Internationally-Traded Services accounted for 26%.

Over the period 2002 to 2011, purchases of services produced in Ireland by Irish-owned firms across the Manufacturing Category declined by 14%, however, between 2010 and 2011 there was an increase of 1% in expenditure on services produced in Ireland.

For the Internationally-Traded Services Category, there was a 37 % growth in purchase of services produced in Ireland by Irish-owned firms between 2002 and 2011, and 1% growth between 2010 and 2011.
In the Manufacturing Category, the Food, Drink & tobacco sector accounted for 55% of purchases of Irish-produced services in 2011. In the Internationally-Traded Services Category, there is a more even spread across several sectors in terms of the share of purchasing of Irish-produced services: Computer Consultancy accounts for 24% of purchases of Irish-produced services, and Business Services and Financial services, 33% and 15% respectively.

The share of purchases of Irish-produced services as a proportion of the total services purchased by all Irish-owned firms declined between 2002 and 2011 by 12%, and by 5% between 2010 and 2011. The share of purchases of Irish-produced services as a proportion of the total services purchased by all firms over the period 2000 to 2011 is shown in Figure 24 for the Manufacturing and Internationally-Traded Services Category separately.

For Irish-owned firms in the Manufacturing Category, between 2002 and 2011 there has been a decline of 5% in the share of purchases of Irish produced services as a proportion of the total services purchased, and of 1% between 2010 and 2011. This measure has declined from 2004 to 2007 in the Manufacturing Category, then grew in 2009 and then stabilised.

In the Internationally-Traded Services Category, between 2002 and 2011 there has been a decline of 17% in the share of purchases of Irish produced services as a proportion of total services purchased. Between 2010 and 2011, there was a decline of 3%. This measure has been declining since 2002 in the Internationally-Traded Services Category, and there is no indication of an arrest to this decline in 2011.

Figure 24 The share of Irish-produced services purchased as a percentage of the total services purchased by Irish-owned firms over the period 2000 to 2011, for the Manufacturing Category and the Internationally-Traded Services Category.

Figure 25(a) and 25 (b) show sectoral level views of the change in the share of purchases of Irish-produced services by Irish-owned firms in the Manufacturing and Internationally-Traded
Services Categories with respect to total services purchased in each Category, for the 2002-2011 and the 2010-2011 period.

For Irish-owned firms in the Manufacturing Category, only one sector demonstrated a significant increase in the purchase of Irish-produced services as a share of total services purchased between 2002 and 2011- the Medical Device Manufacturing sector. However, four other sectors did show more modest growth over the period. However, for all sectors, there was no change or a decline in the percentage of Irish-produced services purchased as a share of total services purchased between 2010 and 2011.

Figure 25 (a) Change in the share of purchases of Irish-produced services by Irish-owned firms in the Manufacturing Category as a proportion of total services purchased, over the 2002-2011 period and the 2010-2011 period.

For Irish-owned firms in the Internationally-Traded Services Category, the performance of Irish-produced services purchased as a share of total services purchased is predominantly negative for both the 2002-2011 and the 2010-2011 periods as can be seen in Figure 25(b).
Figure 25 (b) Change in the share of purchases of Irish-produced services by Irish-owned firms in the Manufacturing Category as a proportion of total services purchased, over the 2002-2011 period and the 2010-2011 period.

4.1.3 Summary of the Materials and Services Produced in Ireland and Purchased by Irish-Owned Firms

In summary, the percentage of Irish-produced materials and services purchased, as a share of total materials purchased by Irish-owned firms, are substantial in both the Manufacturing and Internationally-Traded Services Category. However, the share of Irish-produced materials and services purchased relative to total materials and services purchased has decreased over time for both the Manufacturing and Internationally-Traded Services Category. Medical Device Manufacturing and Other IT and Computer Services demonstrated growth characteristics, both for purchases of Irish-produced materials and services. However, given that the purchases of materials and services is dominated in absolute terms by a small number of sectors, then unless we can turn these sectors around to increase their purchasing levels of Irish produced-materials and services, then we are unlikely to see any significant positive growth in the total share of purchases of Irish-produced materials and services.
4.2 Materials and Services Produced in Ireland and Purchased by Foreign-Owned Agency Firms with Ten or More Employees

4.2.1 Materials Produced in Ireland and Purchased by Foreign-Owned Firms

In 2011, foreign-owned firms accounted for 62% of materials purchases across all firms in the Manufacturing Category, the Energy, Waste, Water & Construction Category accounted for 0%, and the Internationally-Traded Services accounted for 91%.

In 2011, foreign-owned firms accounted for 23% of Irish produced-materials purchases across all firms in the Manufacturing Category, the Energy, Waste, Water & Construction Category accounted for 0%, and the Internationally-Traded Services accounted for 58%.

Over the period 2002 to 2011, materials produced in Ireland and purchased by foreign-owned firms in the Manufacturing Categories declined by 46%, however, between 2010 and 2011 there was an increase of 5% in purchases of Irish-produced materials by foreign-owned firms.

For the Internationally-Traded Services Category, there was a decline of 76% in purchase of materials produced in Ireland, between 2002 and 2011, and growth of 25% between 2010 and 2011.

The share of purchases of Irish-produced materials purchased by foreign-owned firms, as a proportion of the total materials purchased by foreign-owned firms over the period 2000 to 2011 is shown in Figure 26 for the Manufacturing and Internationally-Traded Services Category separately.

For foreign-owned firms in the Manufacturing Category, between 2002 and 2011 there has been a decline of 37% in the share of purchases of Irish-produced materials as a proportion of the total materials purchased, and of 3% between 2010 and 2011. This measure has declined from 2002, with some growth in 2009, before stabilising.

In the Internationally-Traded Services Category, between 2002 and 2011 there has been a decline of 77% in the share of purchases of Irish produced materials as a proportion of total materials purchased. Between 2010 and 2011, there was growth of 11%. This measure declined rapidly between 2000 and 2006, in the Internationally-Traded Services Category, and stabilised to a somewhat steady value in 2006.

In both the Manufacturing Category and the Internationally-Traded Services Category, a small number of sectors accounted for a large proportion of the purchases of Irish-produced materials. In the Manufacturing Category, the Chemicals, the Food, Drink & Tobacco, the Computer, Electronic & Optical Products, and the Medical Device Manufacturing sectors accounted for a large proportion of the category purchases, at 35%, 19%, 10% and 21% respectively. For the Internationally-Traded Services Category, the Computer Programming sector dominated the share of purchases of Irish-produced materials, with a share of 83%, in 2011.
Figure 26 The share of Irish-produced materials purchased as a percentage of the total materials purchased by foreign-owned firms over the period 2000 to 2011, for the Manufacturing Category and the Internationally-Traded Services Category.

Figure 27(a) and 27(b) show a sectoral level view of the change in the share of purchases of Irish-produced materials by foreign-owned firms in the Manufacturing and Internationally-Traded Services Categories with respect to total materials purchased in each Category, for the 2002-2011 and the 2010-2011 periods.

For foreign-owned firms in the Manufacturing Category, three sectors demonstrated a positive change in the share of Irish-produced materials purchased between 2002 and 2011 by foreign-owned firms in the Manufacturing Category. Similarly three sectors demonstrated positive growth between 2010 and 2011. As is evident in the graph, the majority of activity across the sectors is based on negative growth over the time periods considered.

For foreign-owned firms in the Internationally-Traded Services Category, Computer Consultancy, Business Services and Computer Facilities Management demonstrated varying levels of positive growth between 2002 and 2011. The remaining sectors demonstrated negative growth for this time period. There was very little change in the purchasing activities between 2010 and 2011 across all the sectors, except for the Computer Facilities Management sector which demonstrated a change in share of Irish-produced materials purchased (as a proportion of all materials purchased) of 150% between 2010 and 2011. The other sectors exhibited small or no percentage change between 2010 and 2011.
Figure 27 (a) Change in the share of purchases of Irish-produced materials by foreign-owned firms in the Manufacturing Category as a proportion of total materials purchased, over the 2002-2011 and the 2010-2011 periods.

Figure 27 (b) Change in the share of purchases of Irish-produced materials by foreign-owned firms in the Internationally-Traded Services Category as a proportion of total materials purchased, over the 2002-2011 and the 2010-2011 periods.
4.2.2 Services Produced in Ireland and Purchased by Foreign-Owned Firms

In 2011, foreign-owned firms accounted for 90% of services purchased across all firms in the Manufacturing Category, and 97% in the Internationally-Traded Services Category.

In 2011, foreign-owned firms accounted for 62% of Irish-produced services purchased across all firms in the Manufacturing Category, and the Internationally-Traded Services accounted for 90%.

For the Manufacturing Category, there was a 12% decline in purchase of Irish-produced services by foreign-owned firms between 2002 and 2011, and 7% growth between 2010 and 2011.

For the Internationally-Traded Services Category, there was an 8% growth in the purchase of Irish-produced services by foreign-owned firms between 2002 and 2011, and 16% growth between 2010 and 2011.

In the Manufacturing Category, the Chemicals, the Food, Drink & Tobacco, the Computer, Electronic & Optical Products, the Medical Device Manufacturing sectors accounted for a large proportion of the purchases of Irish-produced services, at 41%, 23%, 11% and 21% respectively in 2011. For the Internationally-traded Services Category, the Computer Programming sector dominates the share of purchasing of Irish-produced services, with a share of 86% in 2011.

The share of purchases of Irish-produced services as a proportion of the total services purchased by all foreign-owned firms, declined between 2002 and 2011 by 61%, and grew by 6% between 2010 and 2011. The share of purchases of Irish produced services as a proportion of the total services purchased by all firms over the period 2000 to 2011 is shown in Figure 28 for the Manufacturing and Internationally-Traded Services Category separately.

For foreign-owned firms in the Manufacturing Category, between 2002 and 2011 there has been a decline of 52% in the share of purchases of Irish-produced services as a proportion of the total services purchased by foreign-owned firms, and growth of 7% between 2010 and 2011.

In the Internationally-Traded Services Category, between 2002 and 2011 there has been a decline of 67% in the share of purchases of Irish produced services as a proportion of total services purchased by foreign-owned firms. Between 2010 and 2011, there was an increase of 5%. Purchases of Irish-produced services declined from 2002 for both categories, but the rate of decline slowed for the Manufacturing Category in 2006 and stabilised for the Internationally-Traded Services Category in 2006.
Figure 28 The share of Irish-produced services purchased as a percentage of the total services purchased by foreign-owned firms over the period 2000 to 2011, for the Manufacturing Category and the Internationally-Traded Services Category.

Figure 29(a) and 29(b) show a sectoral level view of the change in the share of purchases of Irish-produced services by foreign-owned firms in the Manufacturing and Internationally-Traded Services Categories with respect to total services purchased in each Category, for the 2002-2011 and the 2010-2011 period.

For foreign-owned firms in the Manufacturing Category, the majority of sectors demonstrated a decrease in Irish-produced services purchased as a share of total services purchased between 2002 and 2010 and between 2010 and 2011.
Figure 29 (a) Change in the share of purchases of Irish-produced services by foreign-owned firms in the Manufacturing Category as a proportion of total services purchased, for the 2002-2011 period and the 2010-2011 period.

Figure 29 (b) Change in the share of purchases of Irish-produced services by foreign-owned firms in the Internationally-Traded Services Category as a proportion of total services purchased, for the 2002-2011 period and the 2010-2011 periods.
For foreign-owned firms in the Internationally-Traded Services Category, the purchases of Irish-produced services as a share of total services purchased is predominantly negative for the 2002-2011 period, though six sectors showed zero or positive growth between 2010 and 2011 as be seen in Figure 29(b).

4.2.3 Summary of the Materials and Services Produced in Ireland and Purchased by Foreign-Owned Firms

Foreign-owned firms exhibit a dramatic fall off over time for the percentage of Irish-produced materials and services purchased as a share of total materials and services purchased. Purchasing of Irish-produced materials and services by foreign-owned firms indicates a monetary inflow into the domestic economy. Thus, it is important that we take stock of these trends and determine what policy interventions may be required in order to optimise the purchasing of Irish-produced materials and services by foreign-owned firms.
Appendix 1   Note on Employment Performance of Agency Assisted Firms with greater than ten employees

Employment
Employment figures in the ABSEI survey are based on the cohort of agency firms with ten or more employees and the Forfás Annual Employment Survey is a more accurate reflection of employment across all agency firms.

Based on the ABSEI 2011 survey data, employment in 2011 in the cohort of agency firms with ten or more employees was up 2% from 2010, and down 14% relative to 2002. Overall 47% of employment was attributed to Irish owned firms and 53% to foreign owned firms in 2011. 60% of employment in 2011 was attributed to the Manufacturing Category, 36% to the Internationally-Traded Services Category and 4% to the Energy, Water, Waste and Construction Category, in comparison to 73%, 24% and 3% respectively in 2002.

Employment - Irish-Owned Firms
Overall in 2011, Irish-owned firms accounted for 47% of employment in the Manufacturing Category, 42% of employment in the Internationally-Traded Services Category and 100% of employment in the Energy, Water, Waste & Construction Category, in agency assisted firms. This compares with shares of 49%, 35%, and 100% respectively in 2002.

In 2011, 60% of the employment by Irish-owned firms was in the Manufacturing Category as compared to 76% in 2002; 32% of the employment was in the Internationally-Traded Services, up from 17% in 2002, and 8% of the employment was in the Energy, Water, Waste & Construction Category, up from 7% in 2002.

For Irish-owned companies, employment increased by 2% between 2010 and 2011, and over the period 2002-2011 employment decreased by 11%. Overall, for Irish-owned firms:

- the Manufacturing Category showed a decline of 30% in employment over 2002-2011 and a growth of 2% between 2010 and 2011.
- the Internationally-Traded Services Category showed growth in employment of 66% over 2002-2011 and a growth of 4% between 2010 and 2011.
- the Energy, Water, Waste and Construction Category showed a growth in employment a decline of 6% between 2010 and 2011.

Employment - Foreign Owned Firms
In 2011, foreign-owned firms accounted for 53% of employment in the Manufacturing Category, 58% of employment in the Internationally-Traded Services category and 0% of employment in the Energy, Water, Waste & Construction Category in agency assisted firms. This compares with shares of 51%, 65% and 0% respectively in 2002.

In 2011, 60% of employment by foreign-owned firms was in the Manufacturing Category as compared to 71% in 2002; 40% of employment was in the Internationally-Traded Services, up
from 29% in 2002 and 0% of employment was in the Energy, Water, Waste and Construction Category, the same as in 2002.

There has been growth in employment by foreign-owned firms in the Internationally-Traded Services industry such that (combined with the reduction in employment in the Manufacturing Category) the ratio of employment in the Internationally-Traded Services Category to employment in the Manufacturing Category by foreign firms has changed from 29:71 in 2002 to 40:60 in 2011.

For foreign-owned companies, employment increased by 2% between 2010 and 2011, and over the period 2002-2011 employment decreased by 10%. Overall for foreign-owned firms:

- the Manufacturing Category showed a decline of 24% in employment over 2002-2011 and zero growth between 2010 and 2011.
- the Internationally-Traded Services Category showed growth of 24% over 2002-2011 and a growth of 5% between 2010 and 2011.
- there is no employment activity associated with Energy, Water, Waste and Construction Category by foreign firms.
## Appendix 2  Forfás Board Members

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
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<tr>
<td>Eoin O’Driscoll</td>
<td>Chairman, Southwestern</td>
</tr>
<tr>
<td>Martin D. Shanahan</td>
<td>Chief Executive, Forfás</td>
</tr>
<tr>
<td>Mark Ferguson</td>
<td>Director General, Science Foundation Ireland</td>
</tr>
<tr>
<td>John Murphy</td>
<td>Secretary General, Department of Jobs, Enterprise and Innovation</td>
</tr>
<tr>
<td>Barry O’Leary</td>
<td>Chief Executive, IDA Ireland</td>
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<tr>
<td>Frank Ryan</td>
<td>Chief Executive Officer, Enterprise Ireland</td>
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<tr>
<td>Michael O’Leary</td>
<td>Secretary to the Board, Forfás</td>
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## Appendix 3  Recent Forfás Publications

### Recent Forfás Publications

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<thead>
<tr>
<th>Title</th>
<th>Publisher</th>
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<tr>
<td>Annual Employment Survey 2012</td>
<td>Forfás</td>
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<tr>
<td>Ireland’s Competitiveness Performance 2013</td>
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<tr>
<td>Making it in Ireland: Manufacturing 2020</td>
<td>Forfás</td>
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<td>Future Skills Requirements of the Manufacturing Sector to 2020</td>
<td>EGFSN</td>
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<td>Sectoral Regulation</td>
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<td>EGFSN Statement of Activity</td>
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<td>Vacancy Overview 2012</td>
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<td>Action Plan for Jobs 2013</td>
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<td>A Review of the Equity Investment Landscape In Ireland</td>
<td>Forfás</td>
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<td>Regional Labour Markets Bulletin 2012</td>
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<td>A Review and Audit of Licences Across Key Sectors of the Irish Economy</td>
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<td>Global Entrepreneurship Monitor (GEM) 2011</td>
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<td>Monitoring Ireland’s Skills Supply - Trends in Education and Training Outputs 2012</td>
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<td>Ireland’s Competitiveness Scorecard 2012</td>
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<td>Sustainability of Research Centres</td>
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The publications of Forfás and the advisory groups to which it provides research support are available at www.forfas.ie

To sign up for our email alerts contact us at info@forfas.ie or through the website.

July 2013

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