

Standard Report on Methods and Quality for International Sourcing Survey

This documentation applies to the reporting period:

2009 - 2011

CENTRAL STATISTICS OFFICE

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1. Overview

The International Sourcing Survey has been conducted twice by the Central Statistics Office (CSO). The first iteration of the survey was for the reference period 2001-2006 while the second iteration was for the reference period 2009-2011. The latest survey was carried out between July and December of 2012.

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

2. General Information

2.1. Statistical Category

The International Sourcing Survey was a statistical survey based on the enterprises' responses to the survey questionnaire.

2.2. Area of Activity

The purpose of the International Sourcing Survey was to establish data on the movement of Irish business activity abroad during the reference period 2009-2011.

2.3. Organisational Unit Responsible, Persons to Contact

Structural Business Statistics (SBS)

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The business specialists above can be contacted by e-mail using their firstname.lastname@cso.ie or industry_rap@cso.ie

2.4 Objectives and Purpose; History

The International Sourcing Survey was part of a wider European project aimed at measuring aspects of the globalisation. There were fourteen of the twenty-seven countries involved in the latest survey carried out in 2012.

2.5. Periodicity

Ad hoc

2.6. Client

European Commission (via Eurostat)

2.7. Users

Primary users of the survey results are academics, Government and the European Commission (via Eurostat)

2.8. Legal basis

None – the International Sourcing Survey was a voluntary survey of enterprises.

3. Statistical Concepts, Methods

3.1. Subject of the Statistics

The principal variables collected were the rate of international sourcing among large Irish enterprises, type of enterprises engaged in international sourcing, the rate of international sourcing by business function and sector, destination for international sourcing, the motivation and barriers to international sourcing.

The survey was a census of all enterprises in Ireland with 100 or more employees in the Irish non-financial business economy (NACE Rev. 2 sectors B to N excluding K). Enterprises were identified using the CSO Central Business Register.

3.2. Units of Observation/Collection Units/Units of Presentation

The International Sourcing Survey is an enterprise survey, where an enterprise is defined as the smallest legally independent unit. All enterprises with 100 or more persons engaged are included in the survey.

Results are published aggregated by the type of activity (NACE), business function, destination etc.

3.3. Data Sources

The only data source used was the enterprise responses on the survey forms.

3.4. Reporting Unit/Respondents

The enterprises that were economically active during the reference period.

3.5. Type of Survey/Process

The International Sourcing Survey was an electronic survey using the CSO's eForm. This allows respondents to complete an online questionnaire which is submitted to the CSO electronically.

3.6. Characteristics of the Sample/Process

3.6.1. Population and Sampling Frame

The CSO's Central Business Register was used to provide the population and sampling frame. The survey was a census of all enterprises in Ireland with 100 or more employees in the Irish non-financial business economy (NACE Rev. 2 sectors B to N excluding K).

3.6.2 Sampling Design

All enterprises in the population were included in the sampling frame.

3.7 Survey Technique/Data Transfer

A letter was posted to each enterprise in the sampling frame outlining how to complete the CSO's eForm. Respondents were expected to log on to the online system and complete the form. Three reminders were sent after the initial launch of the survey. The reminders consisted of both postal letters and emails. The issuing of the survey and reminders was managed using the CSO's Data Management System (DMS).

There were real time edits built into the CSO eForm which means that visual scrutiny of the data was not required. The returned data was transferred to a csv file on the CSO's data network. This data was then transferred to SAS for data analysis and compilation. Further edits were run after the data was uploaded and any issues that arose were examined and resolved where necessary.

3.8 Questionnaire (including explanations)

The survey form may be accessed on the CSO website at:

<https://eforms.cso.ie/public/sourcing.pdf>

3.9 Participation in the Survey

The International Sourcing Survey was non-statutory therefore participation was on a voluntary basis.

3.10 Characteristics of the Survey/Process and its Results

Collected and edited data for enterprises with 100 or more persons engaged were grossed and aggregated using a computed set of grossing factors. The grossing factors were calculated by dividing the number of enterprises who returned forms by the number of enterprises in the population for particular cells. The cells were stratified by main activity of the enterprise (NACE Rev. 2 sections) and employment size (less than 250 employees and greater than 250 employees). A grossing factor was assigned to each responding enterprise and the data was aggregated appropriately.

3.11 Classifications used

NACE Rev.2 is used to classify the companies by activity

<http://www.cso.ie/en/surveysandmethodology/classifications/classificationofindustrialactivity/>

4. Production of the Statistics, Data Processing, Quality Assurance

4.1. Data Capture

Data is captured automatically through the CSO eForm:
<https://eforms.cso.ie/public/sourcing.pdf>

The data was transferred to a csv file on the CSO data network and the data was processed using SAS programs.

4.2. Coding

Every enterprise is coded according to its primary activity (NACE Rev. 2). County codes are used to breakdown the international sourcing data by destination. These are the only types of coding used.

4.3. Data Editing

A phone campaign was carried out to verify the quality of data received on international sourcing. As a result of this campaign, data were edited to reflect the new information received. The phone campaign was initiated due to concerns around the respondent's understanding of the concept of international sourcing.

4.4. Imputation (for Non-Response or Incomplete Data Sets)

Imputation was not used during the survey.

4.5. Grossing and Weighting

Collected and edited data for enterprises with 100 or more persons engaged were grossed and aggregated using a computed set of grossing factors. The grossing factors were calculated by dividing the number of enterprises who returned forms by the number of enterprises in the population for particular cells. The cells were stratified by main activity of the enterprise (NACE Rev. 2 sections) and employment size (less than 250 employees and greater than 250 employees). A grossing factor was assigned to each responding enterprise and the data was aggregated appropriately.

4.6. Computation of Outputs, Estimation Methods Used

All statistical outputs were calculated by grossing the results received from enterprises (response rate was 44%) to the population of enterprises.

4.7. Other Quality Assurance Techniques Used

A number of consistency checks were carried out on the eForm. For example, if an enterprise indicated they sourced their core business function internationally, then the respondent was only allowed answer all further questions on international sourcing for that particular business function. This ensures consistency across questions before the respondent submits the data which reduces the amount of processing after the data is submitted.

The filter questions on the eForm also ensured that respondents were routed through the online form in an efficient and correct manner. For example, if a respondent answered that they did not engage in international sourcing, then the online form automatically directs the respondent to the next relevant section.

5. Quality

5.1 Relevance

Globalisation is one of the most important economic phenomena of recent decades and presents challenges for data providers and policymakers in understanding the flows of global business transactions. Recently, Eurostat (European Commission Statistical Office) have established a number of working groups to look at new ways to measure the increased internationalisation of business. The International Sourcing Survey was developed within this European framework. As the survey is not a legal requirement in the EU, the survey was carried out by a subset of Member States (14 of the 27).

5.2 Accuracy and Reliability

5.2.1. Sampling Effect & Representativity

A census of enterprises with 100 or more employees was taken therefore there are no specific sampling errors in the survey. However, as the response rate was an overall 44%, grossing factors were required to gross the results to the population. Response rates are dealt with under non-sampling effects.

5.2.2. Non-Sampling Effects

5.2.2.1 Quality of the Data Sources used (other than survey register)

The only source used was the results on the survey form.

5.2.2.2 Register Coverage

The survey was a census of all enterprises in Ireland with 100 or more employees in the Irish non-financial business economy (NACE Rev. 2 sectors B to N excluding K).

5.2.2.3 Non-response (Unit and Item)

A breakdown of the response rate by sector is available in the background notes for the survey. See link here: <http://www.cso.ie/en/media/csoie/surveysandmethodologies/surveys/multisectoral/SourcingSurvey0910BackgroundNotes.pdf>

Item non-response is treated by contacting the respondent and trying to obtain the missing data.

5.2.2.4 Measurement Errors

Measurement errors were not formally calculated for the survey.

However, all measures were taken to prevent their occurrence

- (a) All efforts were made to make the questionnaire form as clear as possible. Detailed instructions on how to fill it are also provided.
- (b) Queries were dealt with by phone or e-mail on a day-to-day basis.
- (c) Individual companies' data are confidential under the Statistics Act, 1993, and can only be used for statistical purposes. All efforts are made to make this fact known to the respondents.

5.2.2.5 Processing Errors

All possible measures are taken to avoid processing errors. The use of the CSO eForm reduces processing errors as the data is transferred electronically and there is no scanning of postal forms etc.

5.3 Timeliness and Punctuality

5.3.1 Final Results

Final results were produced and sent to Eurostat three months after the survey was concluded. The national release was published on the 17 April 2013 - about three and a half months after the conclusion of the survey.

5.4 Coherence

The International Sourcing Survey measured a phenomena that is not measured elsewhere therefore there are no consistency issues with other statistical outputs.

5.5 Comparability

The International Sourcing Survey that was carried out in 2007 covered the reference period 2001 to 2006. The latest survey is not directly comparable with the 2007 survey as it covered a shorter reference period i.e. 6 years versus 3 years. As international sourcing is an activity or flow variable (rather than a stock variable), one might expect a shorter period to produce a lower international sourcing rate.

5.6 Accessibility and Clarity

5.6.1 Assistance to Users, Special Analyses

The results from the International Sourcing Survey 2009-2011 are available here (Electronic Release): <http://www.cso.ie/en/releasesandpublications/er/intss/internationalsourcingsurvey2009-2011/>

StatBank tables are available from the following link (webpage): <http://cso.ie/shorturl.aspx/152>

The results from the previous International Sourcing Survey 2001-2006 are available here (pdf): <http://www.cso.ie/en/media/csoie/releasespublications/documents/services/current/miba.pdf>

The form is available here (CSO eForm): <https://eforms.cso.ie/public/sourcing.pdf>

The Surveys and Methodology page is available here (webpage):
<http://www.cso.ie/en/surveysandmethodology/multisectoral/internationalsourcingsurvey/>

5.6.2 Revisions

Revisions have not been required to date.

5.6.3 Publications

5.6.3.1 Releases, Regular Publications

As this was an ad hoc survey, there are no regular releases or publications. The release from the latest survey covering the period 2009-2011 is available at the following link:

<http://www.cso.ie/en/releasesandpublications/er/intss/internationalsourcingsurvey2009-2011/>

5.6.3.2 Statistical Reports

The results from the International Sourcing Survey 2009-2011 will also be included in a Statistics Explained article from Eurostat.

5.6.3.3 Internet

StatBank tables are available from the following link (webpage): <http://cso.ie/shorturl.aspx/152>

5.6.4 Confidentiality

Individual enterprise data are treated as strictly confidential under the Statistics Act, 1993.

6 Response burden

The CSO's eForm automatically collects information on how long it takes respondents to complete the online questionnaire. The mean response time for the International Sourcing Survey 2009-2011 for all enterprises was 36 minutes. The mode for all enterprises was 8 minutes.

Defining the terminology:

Mode: The mode is the most frequent value given for the response time.

Mean: The mean is the average number of minutes taken to complete the form. It is the sum of all response times divided by the number of response times given.

7 Additional documentation and publications

A CSO/Eurostat seminar took place on the topic of globalisation during April 2013 at Trinity College Dublin. Details on the event can be found here:

<http://www.cso.ie/en/newsandevents/conferenceseminars/eurostatseminarglobalvaluechainsandeconomicglobalizationtheeurostatinitiative/>

Additional information can be obtained from the Eurostat website:

http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Global_value_chains