



# Producing Turnover Indices in Industry at INE Spain

## Introduction

### Workshop on Turnover Indices

Muscat, 22-24 May 2017

[elena.rosa.perez@ine.es](mailto:elena.rosa.perez@ine.es)



1. Objectives
2. Scope
3. Statistical unit
4. Business surveys
5. Sampling design
6. Questionnaire
7. Classifications
8. Index characteristics
9. Comparison with retail trade index



The objectives of the Industry Turnover Index are:

- Measure the evolution of the turnover in the industry: “Mining and quarrying” and “Manufacturing” sectors.
- Fulfill the requirements of the REGULATION (EC) No 1165/98 concerning short-term statistics:
  - Breakdown, classification, reference period, level of detail, deadlines for transmission.
  - Gross indices, calendar adjusted indices, calendar and seasonal adjusted indices.
- Meet the needs at National and Regional level: Ministries, National Accounts (regional and quarterly accounts), Eurostat, European Central Bank, users, etc.

## Geographical:

Spain, excluding Ceuta and Melilla.

## Population:

Local kind of activity units whose main activity is included in Sections B: Extractive industries (with the exception, due to their not being relevant to Spanish industry, of sections 07 and 09) or C: Manufacturing industry of CNAE-2009.

The sample size is approx. 11,000 establishments.

## Temporal:

Month.

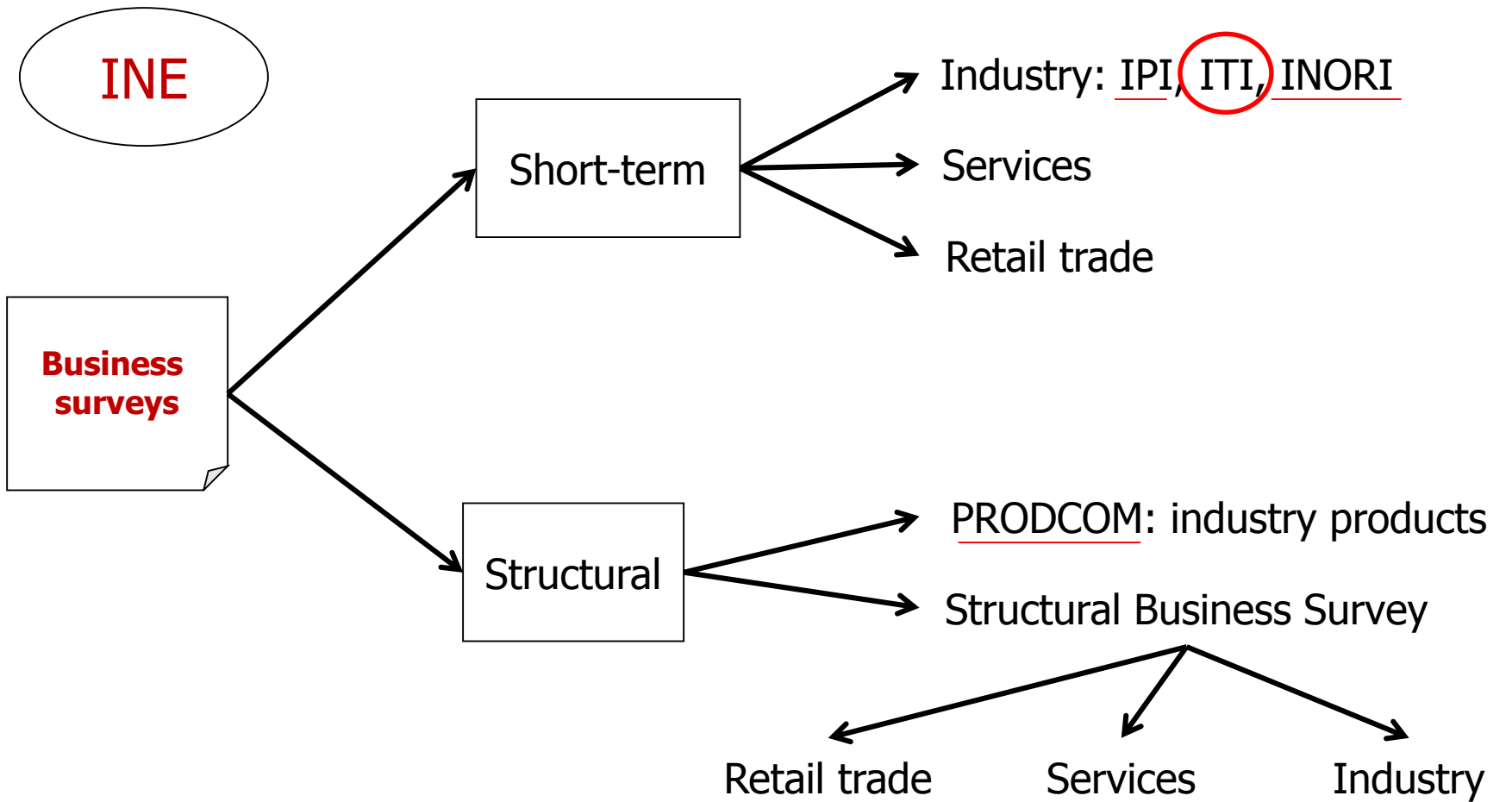


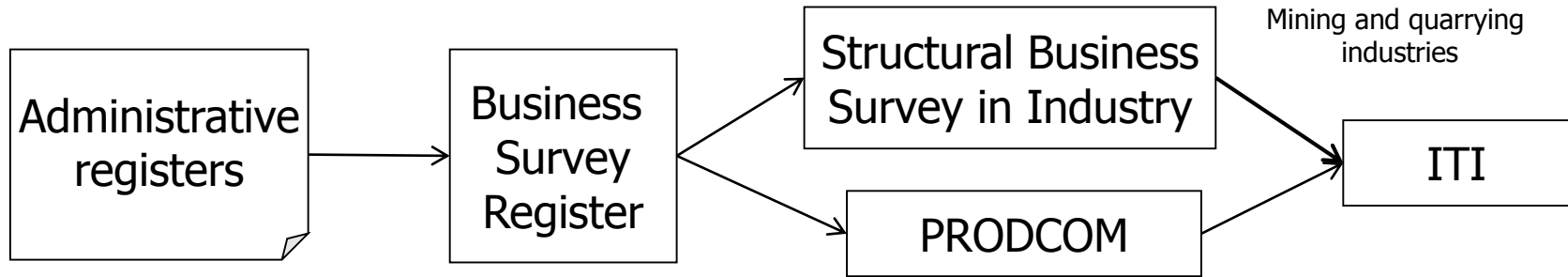


## The Statistical unit is the **Establishment**

European Community Council regulation number 1165/98 of 19 May 1998 on short-term statistics, amended, among others, by European Parliament and Council Regulation number 1158/2005 of 6 July 2005, establishes that the basic statistical unit (or information unit) is the economic activity unit. For this statistical operation, this is defined as the unit that carries out a single economic activity, at four digits level of CNAE-2009, included in sections B and C.

In practice, due to the lack of an appropriate framework for these units, the establishment (unit that carries out one or more economic activities in a single physical location) is used as the information unit.

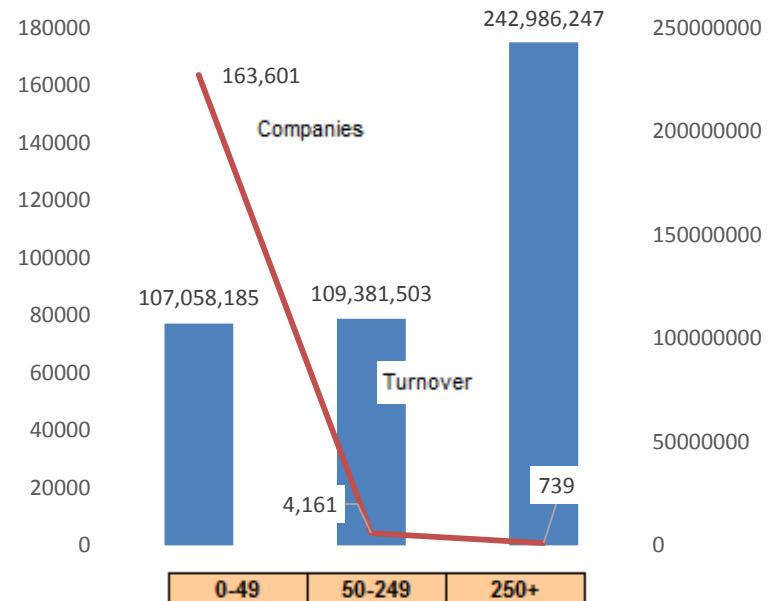




The frame for the Industry Turnover Index is PRODCOM.

PRODCOM statistical unit is the business, but the information collected is broken-down by establishment, indicating the geographical situation and the product manufactured.

Cut-off sampling is used to obtain the ITI sample. It is obtained so that the ITI sample covers at least 80% of the turnover of the strata (NUTS2 \* division/subdivision of CNAE-2009).





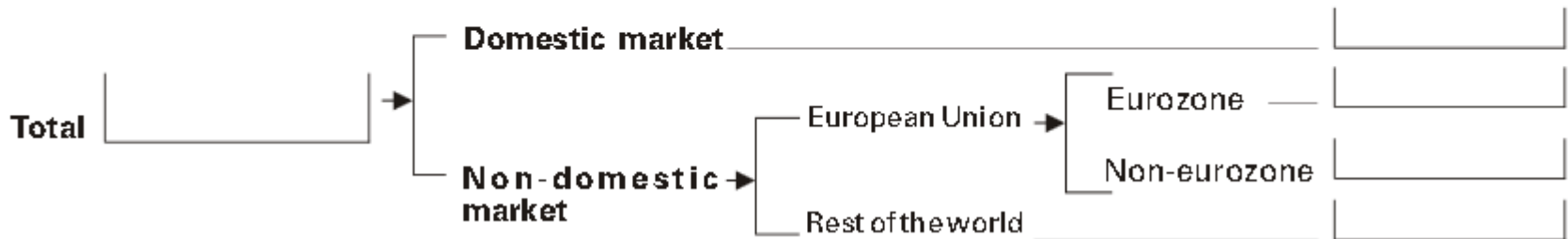
Each establishment in the sample has to fill in the following questionnaire with information about the reference month.

The submission period is the first five days of the following month to which the data refer to.

Failure to comply with the obligations regarding statistics for state purposes shall be penalized with fines from 60.10 to 30,050.61 euros.

**1. Value of the Business figures** (in euros without decimals, without including VAT or other taxes that levy the operation)

**Net amount of the business figures.** Indicate the total and itemize the amount according to its destination







Several classifications are used in the production of the Industry Turnover Index:

- Geographical: NUTS2/AACC. For sampling and dissemination.
- Economic activity:
  - CNAE-2009: Spanish version of the NACE Rev.2. For sampling and dissemination.
  - MIGs: Main Industrial Groupings. For dissemination.
- Markets: Breakdown into domestic and non-domestic, and non-domestic into EU (Eurozone and Rest of EU) and Rest of the World. For data collection and dissemination.



The main characteristics of the Industry Turnover Index are:

- Base year: The indices shall be rebased using as base years the years ending with a 0 or a 5. All indices must be rebased on the new base year within three years after the end of this new base year.
- Weighting: SBS is the preferred source of weights for STS. Industrial structural survey of the base year will be used to calculate the weights.
- Type of index: For nominal indices annual chain-linking is theoretically not relevant, so fixed base Laspeyres index is used.
- Reference period: In theory it is the base year. However, in practice, the calculation process of the elementary indices should consider the possibility of new establishments opening and others that have been definitively closed throughout time, so as to ensure coverage. Therefore, the reference period is the previous month.



There are some differences between Industry and Retail Trade indices:

- Weighting: Retail Trade turnover survey of the previous year is the source used to calculate the weights.
- Type of index: Chain-linking base Laspeyres index is used due to the rotation of the sample.
- Reference period: December of the previous year.
- Statistical unit: Businesses. In the questionnaire data are required to be broken-down into NUTS2 (geographical breakdown).
- Sampling design: Random sampling in each stratum (4 digits-level of CNAE-2009) is carried out annually. Some strata are exhaustive. 25% of the sample is renewed annually, and the new units are surveyed from September of the previous year. Data from the sampling strata are grossed-up before the calculation of elementary indices. The sampling frame is the CBR.
- Administrative register data are used to validate/impute data.



Any question??

