INE. National Statistics Institute

Services Sector Activity Indicators Base 2000

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INSTITUTO NACIONAL DE ESTADISTICA

Methodological note

The Services Sector Activity Indicators (SSAI), compiled by the INE, measure the short-term evolution of the activity of companies that are operative in the services sector in Spain. This operation is also performed in order to comply with European Union Council Regulation no. 1165/98, dated 19 May 1998, on short-term statistics. This Regulation aims to create a common framework for the production of Community statistics on the short-term evolution of supply, demand, production factors and prices.

These indicators reflect the evolution of the most important sector in the Spanish economy, via two variables: turnover and employment; providing information on market services sector activities, which, according to data from the Spanish National Accounts, represent 50% of GDP and 43% of employed persons. The sectors analysed represent almost 70% of the added value generated by market services.

Turnover comprises the amounts invoiced by the company for rendering services and selling goods (which are the object of the company's business). These amounts are considered, including the taxes that are levied on the goods and services, and excluding the VAT paid by the client. Employed personnel is comprised of unpaid workers (owners who work actively in the company) and paid workers, both permanent and temporary workers.

The operation considers activities included in the sectors of Trade, Tourism, Transport, Information and Communication Technology and Company services. To this end, a continuous survey is conducted, every month researching more than 10,000 companies that operate in these sectors. The data for retail trade are obtained from the *Retail Trade Index* Survey. Results are presented as indices so as to measure variations in comparison with base year 2000.

The indices provide data regarding the national total.

Each of the five sectors is comprised of the following activities.

Trade:

- Sale and repair of motor vehicles; trade of automotive fuel
- Wholesale trade and intermediaries
- Retail trade

Tourism:

- Accommodation (hotels, restaurants and bars)
- Travel agencies

Transport:

- Land transport (passengers and goods)
- Sea transport (passengers and goods)
- Air transport (passengers and goods)
- Activities annexed to transport
- Postal activities

Information and Communication Technologies:

- Telecommunications
- IT activities

Company services:

- Legal and economic consultancy
- Market studies
- Technical services
- Advertising
- Labour recruitment and provision of personnel
- Security services
- Industrial cleaning activities
- Miscellaneous business activities

The weightings have been calculated from the structural information of the services sector provided by the Annual Services Survey of the year 2000, which studies more than 100,000 companies in the sector. The following two tables show the weightings of each of the five sectors in the overall group:

Turnover weightings:

Sectors	So much per
	thousand
Trade	705
Tourism	73
Transport	87
Information Technologies	49
Services provided to	86
companies	

Employed personnel weightings

Sectors	So much per
	thousand
Trade	443
Tourism	173
Transport	125
Information Technologies	34
Services provided to	225
companies	

The sample is representative, at least for the activities that encompass each of the five sectors. Simple indices are compiled for each activity (or, in some cases, at a more detailed level), and the indices are prepared by aggregation for each of the sectors and overall.

In the case of employed personnel, the same is also representative for each employment category: unpaid, permanent paid and temporary paid. In this case, the aggregation is also obtained by employment category.

Simple linked and Laspeyres indices are constructed for groups.

The simple index for the first period is:

$$I_1 = \frac{\sum_h \sum_{j=1}^{n_h} x_{1,h,j} w_h}{X M_{2000}}$$

where:

 $x_{1,h,j}$ is the value of the variable (turnover or employment) for the first period of company j belonging to stratum h.

 w_h is the elevation coefficient of the companies belonging to stratum h.

 n_h is the sample size of stratum h.

 $\mathrm{XM}_{\mathrm{2000}}$ is the average value of the variable in the base year (2000).

The index in period *t* is:

$$I_{t} = I_{t-1} * V_{t,t-1} = I_{t-1} * \frac{\displaystyle \sum_{h} \sum_{j=1}^{n_{h}} x_{t,h,j} w_{h}}{\displaystyle \sum_{h} \sum_{i=1}^{n_{h}} x_{t-1,h,j} w_{h}}$$

For the calculation of the grouped indices, Laspeyres-type indices are used with weightings fixed in base year 2000.

The index for turnover or sector employment S; S may be Trade, Tourism, Transport, Information and Communication Technologies or Company Services in period t is:

$$\mathbf{I}_{t}^{S} = \sum_{A \in S} \mathbf{w}_{2000}^{A} * \mathbf{I}_{t}^{A}$$

where A represents the activities included in each sector.

 I_t^A is the elementary index in period t corresponding to activity A.

 W_{2000}^{A} is the weighting of activity A in sector S; that is:

$$w_{2000}^{A} = \frac{X_{2000}^{A}}{X_{2000}^{S}}$$

where:

 X_{2000}^{A} is the value of variable X for activity A in the base year.

 X_{2000}^{S} is the value of variable X for the total activities that comprise grouped index S in the base year.

In the employed personnel index, the aggregation by employment category is obtained similarly.