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Turnover and Output Measurement for Postal Sector in Italy

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1 Definition of service being collected

Postal and courier enterprises are classified according to the european statistical classification (NACE Rev. 2) in the division *53 - Postal and courier activities* included into the section *H - Transportation and Storage*. According to NACE Rev. 2 (as well as the ISIC Rev.4 and the Italian national classification ATECO 2007) division 53 contains postal and courier activities, such as pickup, transport and delivery of letters and parcels under various arrangements. Local delivery and messenger services are also included.

In particular, the division 53 is divided in two 3-digit groups whose main distinction is the connection or not with the universal service obligation. More in detail the group 53.1 includes the activities of postal services operating under an universal service obligation by one or more designated universal service providers. The activities include use of the universal service infrastructure, including retail locations, sorting and processing facilities and carrier routes to pickup and deliver the mail. The group 53.2 considers pickup, sorting, transport and delivery (domestic or international) of letter-post and (mail-type) parcels and packages by firms operating outside the scope of an universal service obligation. One or more modes of transport may be involved and the activity may be carried out with either self-owned (private) transport or via public transport.

2 Unit of measure being collected

For short term indicators the Short-Term Statistics Regulation (Council Regulation (EC) No. 1165/98 and (EC) No. 1158/2005 of the European Parliament and of the Council) requires turnover to be transmitted to Eurostat either as an index or as absolute figures. The turnover index is a simple value index (price multiplied by quantity/volume) and is a direct index in that it compares the current period with the fixed period in the base year. In order to compile turnover indices at higher levels of NACE, the indices at the lowest level have to be aggregated by using weights based on the turnover share of each activity in the base year provided by Structural Business Statistics data. In Italy the services turnover survey collects turnover in euro excluding the VAT and other taxes and subsidies. Turnover is collected also by Structural business statistics (produced annually). For both of them information are collected at enterprise level.

Short-term statistics of postal and courier activities have been produced since the first quarter 2000. The turnover is measured as an index, currently in base year 2010=100. While structural business statistics turnover and of postal and courier activities is measured in Euro. These statistics have been produced since 1998.

In the service sector short-term business statistics and structural business statistics are both relatively recent statistics, induced by the growing economic importance shown by the services sector in the last years. Short term statistics aim to monitor economic trends, whereas structural business statistics describe the structure and performance of economic activity to show elementary structural shifts. Therefore the short term statistics only monitor turnover and the indices are released with a timeliness of 60 days after the end of the reporting quarter, raw and in working day and seasonal adjusted form. Structural business statistics survey collects data on a broader range of variables in a greater level of detail 18 month after the end of the reporting year.

The turnover indices are based on information gathered on a quarterly survey based on a sample of companies representative of the various economic sectors. The great amount of structural differences among the economic sectors included in the survey leads to different methods of sample selection.

In the case of highly concentrated sectors, as the Postal and courier sector, where a few number of large companies determine the dynamics of the market, the selection is made by cut-off criterium, which includes larger companies to cover a sufficiently high proportion (usually over 80%) of the sector turnover.

3 Market condition and constraints

Following the ICT progress, the European postal sector has been evolving rapidly and national postal services are facing new challenges. Indeed, new communication means change the communication behaviour in two directions: on the one side, over the last years, the mail volumes have dropped significantly[1] on the other side the postal sector benefits from the continuous growing of the e-commerce market which presents many new opportunities

[1] In some countries these drops mark two-digit percentage figures forcing the postal companies to cut costs becoming more efficient and to look for revenues in different economic sector.

for postal companies. Moreover, in the new context of greater liberalisation and in some cases of privatisation, there is a fast moving competition in a regulated market that impose the postal companies to take huge efforts to be successful and to garantee a service accessible everywhere at the same time. In this sense, the main priorities for EU policies on postal services include the completion of the internal market and ensuring efficient, reliable and good quality services at affordable prices for individuals and enterprises. For, the European legislation[2] aim to establish a standard reserved area for letters and access conditions for licensed operators, to introduce independent regulators in each Member State, to set quality standards and to establish clear principles on pricing.

Actually, the 60% of the Member States have a full market opening while almost the 80% of them are opened to competition. More in detail, five European Union Member States have abolished the reserved area before the date foreseen in the Postal Directive: Germany, Finland, Sweden, UK and the Netherlands.

For more details about the changes occurred in the competitive structure in Table 1 we present the dynamic of postal enterprises number in the period 2005-2010 for a set of European Countries.

Looking at the Italian postal and courier activities market a recent work produced by Istat on competitiveness of manufacturing and service sectors (Table 2) shows that the number of enterprises, after a first increase in 2007-2008, decreased of 4.0% in 2009 for growing again more slowly in 2010.

In such way the average size of enterprises has passed from 78.1 in 2008 to 81.5 in 2009 going back to a value of 79 employees for enterprise in 2010. The birth rate of enterprise (measured as the ratio between new enterprises in the reference year and active enterprises) has recorded a high value (19.9%) in 2010 compared to the previous years as well as the death rate of enterprises. Consequently the gross rate of turnover of enterprises (sum of birth and death rate) is passed to 36.4% in 2010 from 28.7% in 2009. Similarly the net rate in 2010 showed an increase equal to 3.4% compared to all negative values for the previous year.

[2]The EU law on postal services consists of three postal directives: Directive 97/67/EC of 1997, as amended by Directive 2002/39 and Directive 2008/6/EC which imposed to EU member states obbligations on the universal service provider and reduced the reservable area to items of domestic and incoming cross-border correspondence.

Table 1: Number of enterprises in some EU countries: postal and courier services

GEO/TIME	2005	2006	2007	2008	2009	2010
Bulgaria	:	170	180	271	420	468
Czech Republic	291	330	426	472	487	458
Estonia	22	29	44	51	50	67
Finland	267	299	307	324	322	337
France	1.950	2.011	1.884	:	:	1.530
Germany	7.651	8.221	8.995	8.784	8.854	8.562
Italy	2.040	2.025	2.113	2.147	2.061	2.067
Netherlands	2.350	2.705	2.710	3.106	3.532	4.459
Romania	252	308	404	533	610	599
Spain	6.056	5.893	5.427	4.490	5.875	6.045
Sweden	351	390	412	419	422	437
UK	11.000	11.385	11.609	12.297	11.752	11.707

Source: Eurostat (online data post_ps_empn, nama_aux_pem and ifsa_egam)

4 Standard classification structure and product details/levels

The Italian classification of economic activities (ATECO 2007) is based on NACE Rev.2.2 and for this specific sector does not present any additional hierarchical level. Indeed although are considered the five digit level they do not present any kind of specification for this sector but the one related to the universal service obligation previously discussed.

The complete break-down of the Postal and courier activities sector can be seen in the following table.

In the service sector there is not an official national product classification. However, there is a standard of product classification: the European version of the central product classification (CPC) called statistical classification of products by activity within the European Economic Community 2008 (CPA 2008) whose elements are related to activities as defined by NACE rev. 2. In postal and courier activities there are just two items at the detailed product level (see table 3).

Table 2: Demographic indicators

Main indicators	2005	2006	2007	2008	2009	2010
Number of enterprises	2.040	2.025	2.113	2.147	2.061	2.067
Number of employees	163.897	165.175	166.385	167.752	167.998	163.341
Average size	80,3	81,6	78,7	78,1	81,5	79,0
Enterprises Death rate	11,8	12,3	13,3	14,7	14,3	19,9
Enterprises Birth rate	13,9	14,7	14,3	15,9	14,4	16,5
Enterprises Surviving rate						32,4
Gross rate of enterprises turnover	25,7	27,0	27,6	30,6	28,7	36,4
Net rate of enterprises turnover	-2,1	-2,4	-1,0	-1,2	-0,1	3,4

Source: Istat(service sector competitiveness)

Table 3: Classification of postal and courier activities

NACE Division	NACE Group	NACE Class	ATE5-digit level	Name
53				Postal and courier activities
	53.1	53.10	53.10.0	Postal activities under universal service obligation
	53.2	53.20	53.20.0	Other postal and courier activities

Source: Istat(ATECO 2007)

5 Evaluation of standard definition and market conditions

The Postal and Courier activities sector is characterized by the coexistence of four large enterprises and a large set of small and middle-sized companies whose number has increased between 2001 and 2011 as effect of process of liberalization [3].

From 2001 to 2011 the number of enterprises grew of 31.1% and the 91.8% of the total number of enterprises in 2011 are with no more than 9 employees. However more than the 90% of the employees are included in the few firms with more than 1000 employees that actually show a decreasing of

[3]The liberalization process in Italy starts in 1999 with the launch of the Decree-Law 261/1999

Table 4: Enterprises dimension

Employees class	Enterprises number		Employees number	
	2001	2011	2001	2011
0 - 9	1.551	2.015	2.745	3.684
10 - 49	107	151	2.005	2.914
50 - 99	4	13	245	824
100 - 249	6	10	807	1.591
250 - 499	2	-	755	-
500 - 999	-	2	-	1.248
>1000	4	4	175.881	152.225
Total	1.674	2.195	182.438	162.486

Source: Istat(Industry and Services census)

the number of employees of 13.5% while in the other classes we calculated an increasing of the employment of 56.5%.

6 National Accounts Concepts and measurement issues related to GDP measurement

From a macro-economic point of view, the postal sector constitutes a larger share of GDP in countries with high income levels than in countries with lower income levels. For having a measure of the sector in Italy we look at value added whose dynamic show a decline in 2003 and 2004. Following a period of positive growth rate between 2005 and 2008, value added registered a negative value in 2009 (-9.2%). Data of *Final consumption expenditure of households by consumption purpose* show an irregular trend with a growth rate positive for 2010.

7 Turnover/Output data method and criteria for choosing various output methods

The compilation of the Index of service production (ISP) should measure changes overtime in the volume output of service sectors. The turnover deflated by an appropriate output price index is considered to be the first

Table 5: National accounts

Year	Final consumptions Th. of Euro	Final consumptions Var (%)	Production Th. of Euro	Production Var (%)	Value added Th. of Euro	Value added Var (%)
2002	:	:	8280.7	:	5337.5	:
2003	804.8	:	7976.5	-3.7	5206.8	-2.4
2004	891.0	10.7	7219.2	-9.5	4604.7	-11.6
2005	880.6	-1.2	7658.8	6.1	5057.3	9.8
2006	849.9	-3.5	7620.4	-0.5	4966.6	-1.8
2007	884.7	4.1	8375.5	9.9	5440.7	9.5
2008	898.9	1.6	8678.5	3.6	5746.3	5.4
2009	804.6	-10.5	7876.7	-9.2	5219.5	-9.0
2010	865.8	7.6	7705.0	-2.2	5127.4	-1.8

choice for the compilation of ISP. For postal and courier activity sector the following indicator are available:

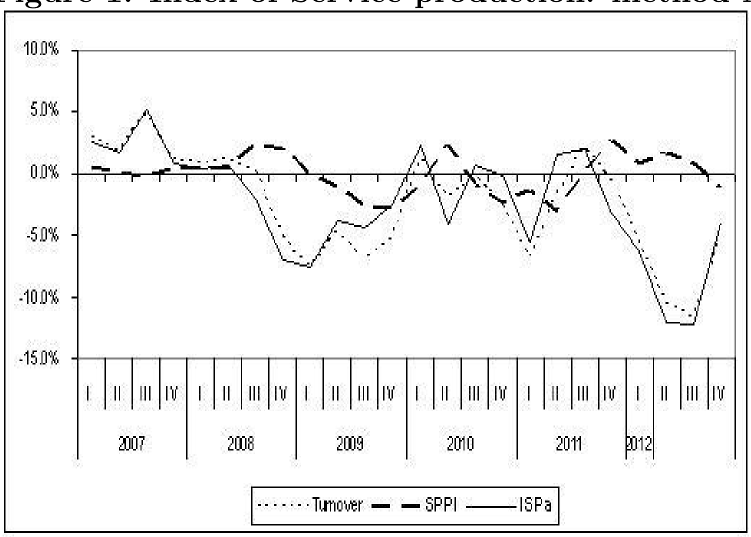
- Turnover index calculated on quarterly basis in base 2010=100;
- SPPI calculated on quarterly basis in base 2010=100;
- HICP calculated on monthly basis in base 2005=100;

Depending on the particular industry as deflator for turnover can be used either SPPI or HICP. For the section H53 (Postal and Courier activities) in the *Compilation Manual for an Index of Service Production* published by OECD the turnover from survey of postal and courier enterprises deflated by weighted appropriate price index of SPPI and HICP is indicated as preferred method for measuring gross value added. In alternative can be used either HICP or SPPI. In this section we will show the results for an experimental ISP for postal and courier activities in base 2010=100 using both approaches:

- an ISP calculated deflating turnover by SPPI (A);
- an ISP calculated deflating turnover by a combination of SPPI and HICP (B).

In particular using the supply and use tables at basic prices for year 2009 we checked the destination of the output of branch postal and courier activities (R53) between business use (intermediate consumption) and household consumption [4]. For year 2009 the 88.4% of the output was destinated to intermediate consumption and 11.6% to household consumption. In figure 1 we show the results of the experimental ISP with method A plotting the rate of change on the same quarter of the previous year for ISP, the turnover and SPPI indices. The diminution for the first and the second quarter of 2012 are bigger for ISP compared to turnover because of the rise in SPPI. Conversely for 2009 the ISP has negative change of rate smaller compared to turnover

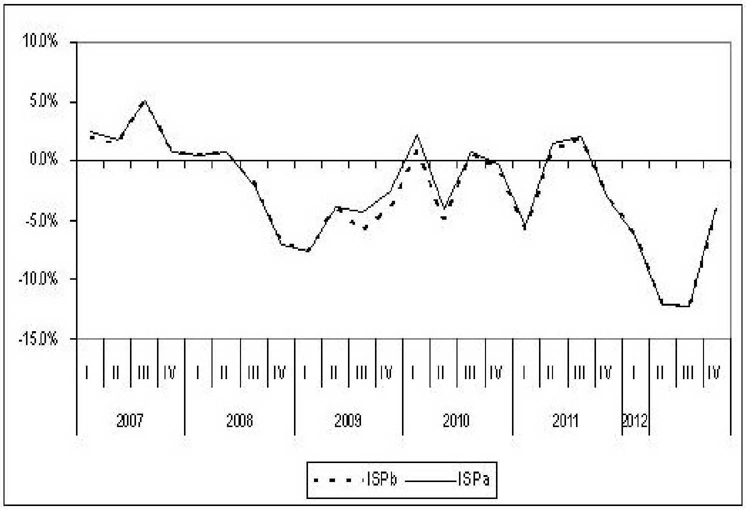
Figure 1: Index of Service production: method A



In figure 2 we compare the two ISP calculated with method A and B. For the ISP with method B we consider a weighted average of the two price indices (SPPI and HICP) using the weights estimated with the supply and use table (0.884 and 0.116). The results in terms of rate of change on the same quarter of the previous year are quite similar except for the period from the second quarter 2009 to the third quarter 2010 when the HICP registered an increase and leading to more negative rate of change for ISP calculated with method B.

[4]The results are similar for year 2008.

Figure 2: **Index of Service Production: method A and method B**



8 Evaluation of comparability of turnover/output data with price index practices

According to Regulations (EC) No 1158/2005 and No 1503/2006 of the European Parliament and of the Council that amend the regulations concerning short-term statistics the Italian Statistic Institute is obliged to supply producer price indeces of NACE rev. 2 division 53 *Postal and Courier activities* on a quarterly basis.

The index, actually on base 2010=100, is derived from the aggregation of two distinct price indices: one for the industry related to the activities of postal services under universal service obligation (group 53.1) and another for the industry relative to other postal and courier activities without universal service obligation (group 53.2). The two separate indexes are synthesized by means of weighted arithmetic mean, in a single index, which measures price trends in the postal sector as a whole. The weighting coefficients are based on estimates of the turnover of business to business component for the two sectors. Looking at the rate of change on annual averages the output prices for Italy registered a growth rate positive for 2012 after three years of negative value. While the turnover shows a strong diminution by registering a negative rate of change on annual averages from 2008 by reaching a peak of

-8.1 in 2012. For prices besides SSPI, Harmonised Index of Consumer Prices (HICP) is released. Looking at the Italian annual averages rate of change HICP in 2012 we detect an increase of 19.2% with respect to the annual average in 2005.

Table 6: STS Data

Year	Total Output Price Index Var (%)	Turnover Index Var (%)
2007	0.2	2.6
2008	1.3	-0.8
2009	-1.6	-6.1
2010	-0.8	-0.9
2011	-1.9	-3.8
2012	0.6	-8.1

9 Summary

For Postal and courier activities the international classifications are well harmonised. There is a good availability of data in both Short-Term and Structural Business Statistics and National Accounts. In Italy SPPI and HICP indices are compiled for the sector together with data on quarterly turnover index. The results showed in this work are at the moment an experiment for the calculation of ISP for Postal and Courier activities. As pointed out in the *Compilation Manual for an Index of Service Production* a better method would be the method that "if the components of a consumer price index adjusted to basic prices are used in conjunction with a services industry producer price index they will need to be weighted together using turnover data for the different components".

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