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Economic downturn in the EU: the impact on employment in the business economy

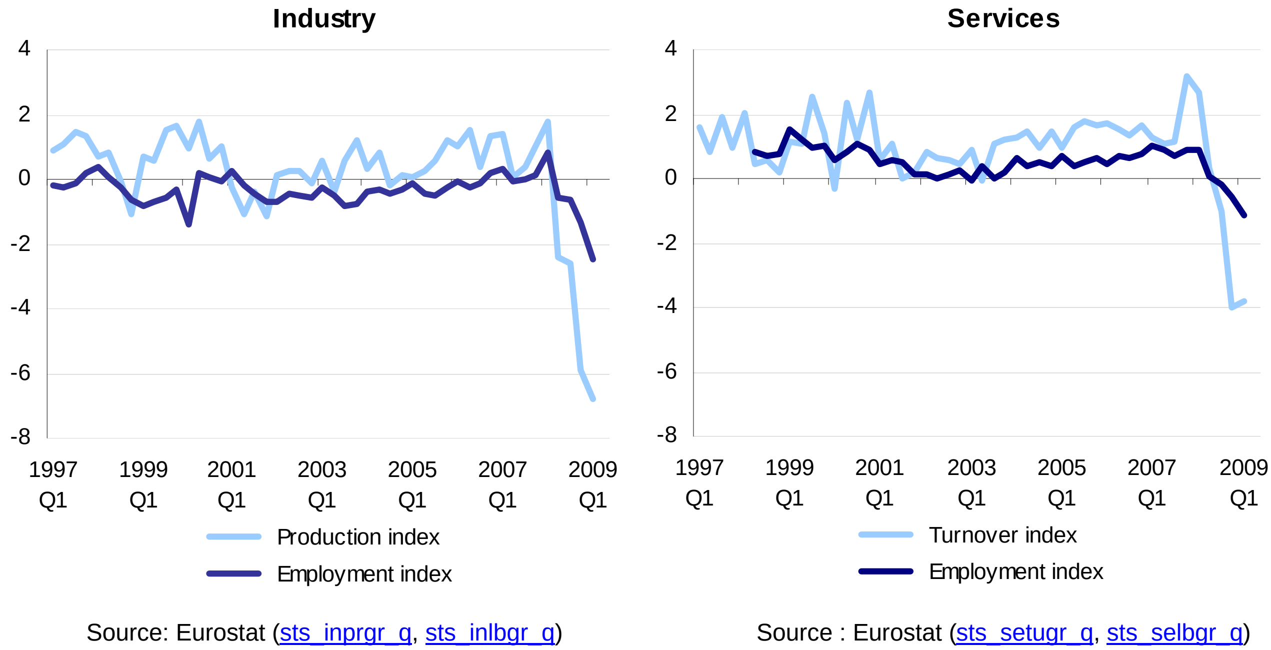
A recession is often defined as two successive negative quarter on quarter changes in constant price GDP. Eurostat's Statistics in Focus on 'Recession in the EU-27: output measures' (issue 17/2009) showed that there were successive declines in the EU-27's GDP in the third and fourth quarters of 2008, and since then a further and stronger rate of decline was recorded for the first quarter of 2009.

Along with GDP and inflation, employment also provides a direct indication of the overall level of economic activity. This publication uses short-term indicators to look at the impact of this new recession on trends in EU-27 employment within economic activities.

There was a sharp turn-around in economic activity after the first quarter of 2008 for both industry and services (see Figure 1). This was reflected most clearly in a rapid and steep reduction in output; industrial output declined by 16.7 % between the first quarter of 2008 and the first quarter of 2009, and that of services by 8.3 %.

There was a relatively rapid reaction to this downturn in industrial employment, with cumulative cutbacks of 4.9 % in the four quarters through to the end of the first quarter of 2009. There was also a relatively rapid downturn in the index of persons employed in services; growth in the second quarter of 2008 slowed markedly, followed by accelerated declines in the three quarters through until the first quarter of 2009. These were the first falls in the index of persons employed in services recorded in the period for which EU-27 data are available (since 1998).

Figure 1: quarterly employment and output, seasonally adjusted, EU-27 (% change on previous month)



The impact of the recession on employment in industry and construction

In this section, the recent developments in output and employment within each of the Main Industrial Groupings (which group together similar industrial activities within an aggregate classification) are analysed.

A few broad observations can be made for the Main Industrial Groupings (MIGs) of capital goods, durable consumer goods, intermediate goods, as well as for construction (see Figure 2):

- across these activities, there was a relatively strong fall in the production indices after the first quarter of 2008;

- there was an almost immediate change in the indices of hours worked and of persons employed, either accelerating existing downward trends or reversing rises;

- in the four quarters since the first quarter of 2008, the rate of decline in the index of hours worked was stronger than the rate of decline in the index of persons employed, supporting the view that employers first reduce hours before making redundancies.

Capital goods: the index of production for the EU-27 peaked in the first quarter of 2008, after almost five years of sustained growth. In the year following that peak, the index of production for capital goods fell by 22.3 %, returning close to the level of the previous relative low reached in the second quarter of 2003. Of the two measures of employment presented in this publication, the decline in the number of hours worked in capital goods activities was the fastest to reflect the downturn in production, falling back in the second quarter of 2008 after two years of growth: the index of the number of persons employed started to decline one quarter later. By the end of the first quarter of 2009, the decline in the index of the number of hours worked in capital goods activities in the EU-27 had reached 6.2 %, twice the rate of the decline in the index of the number of persons employed.

Intermediate goods: among all of the MIGs, the sharpest decline in output in the year to the end of the first quarter of 2009 was in intermediate goods; from the relative peak in the first quarter of 2008, output declined by 23.5 %, to its lowest level since the first quarter of 1997. After years of a relatively steady level of employment in these activities within the EU-27, the knock-on effect of this change in production was a decline of 9.1 % in the index of hours worked over the year between the first quarters of 2008 and 2009, with the index of persons employed also falling by 5.8 % in this same period.

Durable consumer goods: the EU-27's production index of durable consumer goods fell by almost one fifth (18.8 %) up to the end of the first quarter of 2009 from the relative peak one year earlier. The level of the EU-27's production index at the end of the first quarter of 2009 was the lowest since the fourth quarter of 1993.

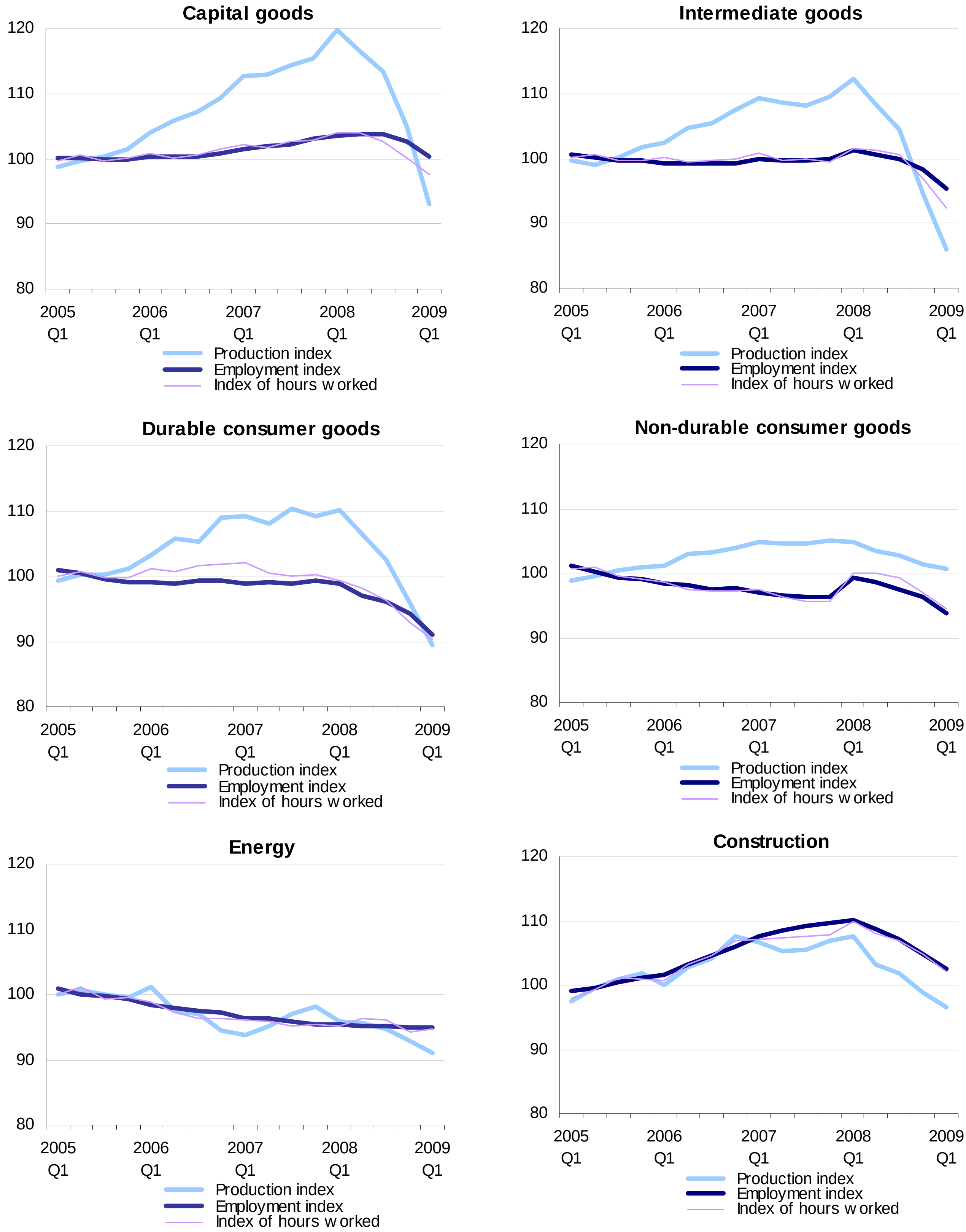
This sharp and deep turn-about in production is also reflected in employment data. After years of relative stability in the indices of persons employed and hours worked within the grouping of durable consumer goods activities, there were also steep cutbacks in the year to the end of the first quarter of 2009. The index of hours worked fell by 9.1 % from the level recorded at the end of the first quarter of 2008, with the index of persons employed declining by 7.9 %.

Non-durable consumer goods: the EU-27 indices for persons employed and hours worked in the grouping of non-durable goods activities fell at almost identical rates between the first quarters of 2008 and 2009 (-5.6 % and -5.5 % respectively). These rates were slightly steeper than for the index of production in the same period (-4.2 %).

Energy: in contrast to the other MIGs, the volume of output of energy activities has been on a downward trend for a number of years. For much of this period, there was also a steady fall in the indices of persons employed and of hours worked, which broadly continued in the year after the first quarter of 2008.

Construction: as a highly labour intensive sector, the sharp downturn in construction activities after the first quarter of 2008 was closely mirrored by the labour input indices. Against the background of a 10.3 % fall in the production index for construction activities in the year to the end of the first quarter of 2009, the index of hours worked in construction in the EU-27 declined by 7.2 % and the index of person employed reduced by 6.9 %.

Figure 2: quarterly employment and output, seasonally adjusted, for the Main Industrial Groupings and construction, EU-27 (2005=100)



Source: Eurostat (sts_inpr_q, sts_inlb_q, sts_copr_q, sts_colb_q)

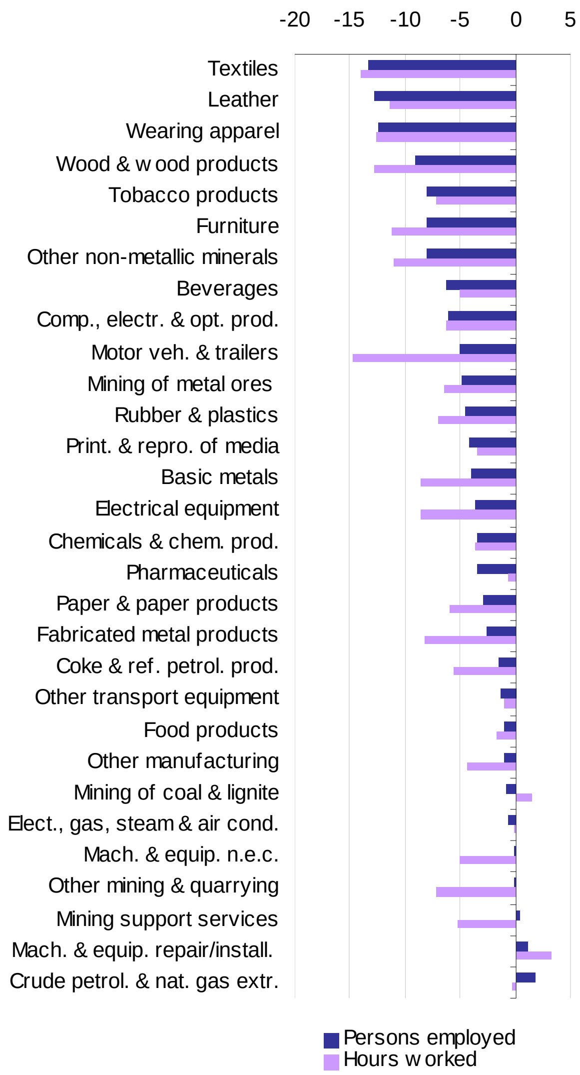
In almost all industrial activities (at the NACE Division level), both of the labour input indices declined in the year to the first quarter of 2009 (see Figure 3).

The fastest rates of decline (between about 12 % and 13 %) in the index of persons employed during this period were in the manufacture of textiles, leather and wearing apparel (NACE Divisions 13 to 15). These activities have been in transition for a number of years, both in the ten-year build-up to the abolition of the Agreement on Textiles and Clothing at the end of 2004 and the subsequent abolition of textile and clothing import quotas. The economic downturn since the first quarter of 2008 appears to have accelerated the ongoing re-structuring of businesses in these activities.

In the vast majority of industrial activities, the rate of decline in the index of hours worked during the year to the end of the first quarter of 2009 was stronger than the decline in the index of persons employed. This characteristic was particularly clear in the activities of motor vehicles, trailers and semi-trailers manufacturing (NACE Division 29), where the index of hours worked declined by 14.6 %, a considerably stronger rate than the reduction in the index of persons employed (-5.1 %).

There were few industrial activities that appeared relatively robust in the face of the downturn.

Figure 3: change in quarterly employment, seasonally adjusted, among industrial NACE Divisions, EU-27, between the first quarter of 2008 and first quarter of 2009 (%)



Source: Eurostat (sts_inlbgr_q)

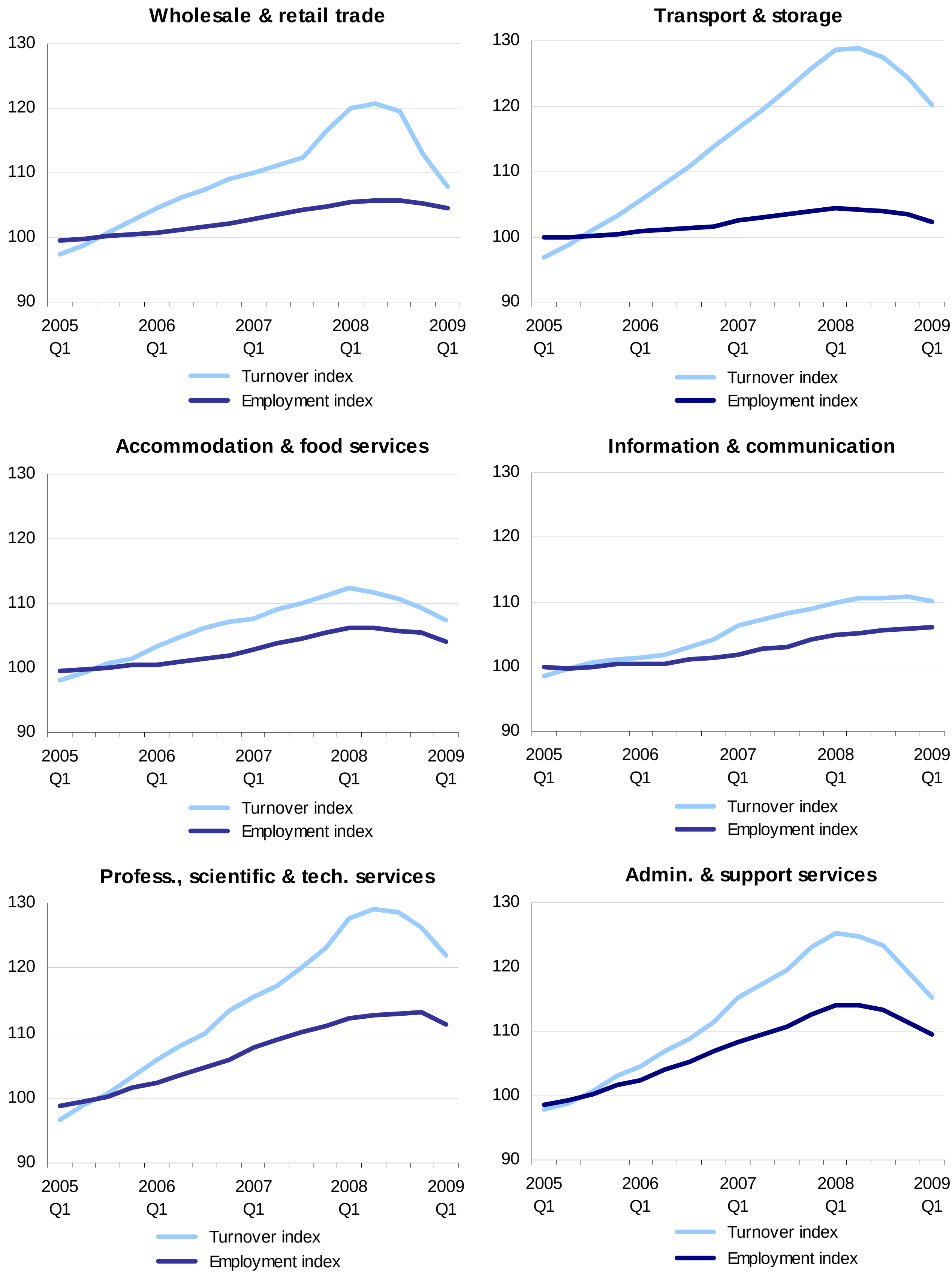
The impact of the recession on employment in services

The economic downturn after the first quarter of 2008 was also noted among the EU-27's service activities (at the NACE Division level) although most clearly in terms of turnover (see Figure 4).

In contrast to the majority of industrial activities, the indices of persons employed by the majority of service activities held relatively firm until the third quarter of 2008 before declining through until the end of the first quarter of 2009. However, there were overall declines in the indices of persons employed in professional, scientific and technical services (-0.8 %), wholesale and retail trade (-1.0 %), transport and services (-2.0 %), accommodation and food services (-2.1 %) and particularly administrative and support activities (-4.1 %) in the year to the end of the first quarter of 2009. The main exception to this trend was the index of persons employed within information and communication activities in the EU-27 which continued to grow throughout this period.

It should be noted that the EU short-term statistics regulation does not require data for hours worked in services until 2013.

Figure 4: quarterly employment and output, seasonally adjusted, for the service Sections, EU-27 (2005=100)



Source: Eurostat (sts_setu_q, sts_selb_q)

The impact of the recession on employment in the Member States

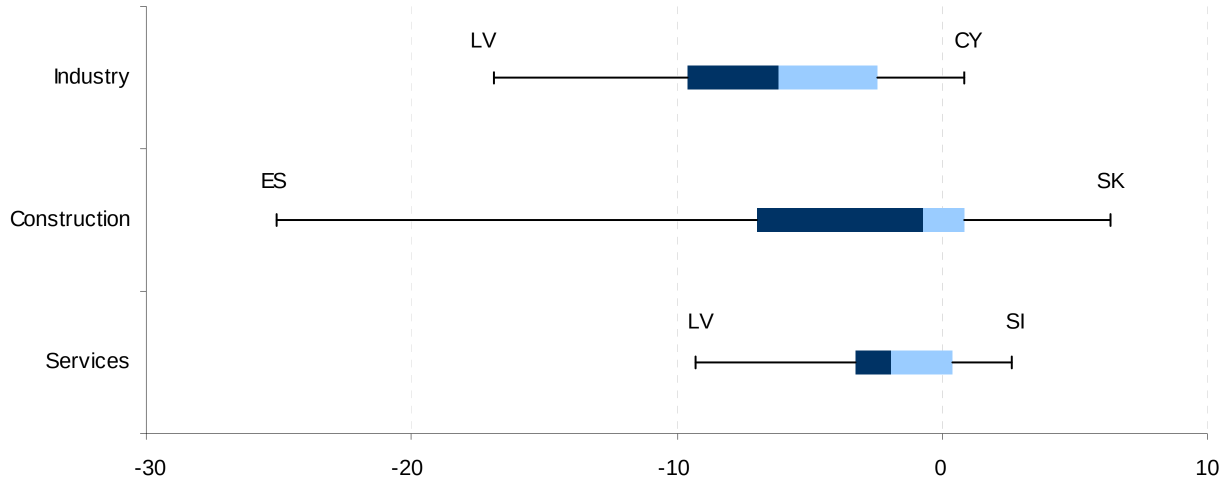
The impact on employment of the broad downturn in economic activity in the EU-27 since the first quarter of 2008 not only varied between economic activities but also between Member States.

Among the Member States for whom complete data are available (see the footnote to Figure 5), Latvia recorded the strongest rate of decline (-16.9 %) in seasonally adjusted employment within industrial activities for the period between the end of the first quarter of 2008 and the end of the first quarter of 2009. Rates of decline above 10 % were also recorded in Lithuania, Spain, Estonia, Romania and Slovakia. In contrast, there was little change in industrial employment in this period in Luxembourg and Germany (both -0.4 %) and a small rise in Cyprus (0.8 %).

There were even wider contrasts among the Member States regarding employment changes within construction activities. The index of persons employed in construction activities in Spain fell by about one quarter (-25.1 %) in the year after the first quarter of 2008. There was a similar rate of decline (-22.6 %) in Latvia. In contrast, there was growth in construction employment in nine Member States in this period, the highest rates of which were in Slovakia, Slovenia and Greece (all between 5.5 % and 6.5 %).

The change in the employment index in service activities up to the end of the first quarter of 2009 was less varied between the Member States than for industrial activities and construction. The steepest rate of decline (-9.3 %) in employment within services was in Latvia, with other notable declines in Estonia (-7.8 %) and Spain (-6.4 %). In contrast, there was growth in services employment in seven Member States. Growth during the year up to the end of the first quarter of 2009 was relatively steady in Sweden and Cyprus, but in Bulgaria, Poland, Romania and Slovenia was limited until the fourth quarter of 2008. Nevertheless, the strongest rate of increase (2.6 %) in the services employment index in the year to the end of the first quarter of 2009 was in Slovenia.

Figure 5: short-term evolution of employment, seasonally adjusted, Member States (1)
(% change between first quarter of 2008 and first quarter of 2009)



(1) Industry: excluding Belgium, Ireland, France, Italy, Malta and the Netherlands;
Construction: excluding Belgium, Estonia, Ireland, Malta and the Netherlands;
Services: excluding Belgium, Ireland, Italy, Luxembourg, Malta and the Netherlands;
The boxes show (from left to right for each activity) the second and third quartiles, separated by the median;
The country with the minimum value and the country with the maximum value are also indicated.

Source: Eurostat (sts_inlbgr_q, sts_colbgr_q, sts_selbgr_q)

METHODOLOGICAL NOTES

The source for all of the data presented in this publication is Eurostat's short-term business statistics (STS). The legal basis for the STS is Council Regulation No 1165/98 of 19 May 1998 ([1]) concerning short-term statistics and Regulation (EC) No 1158/2005 of the European Parliament and of the Council of 6 July 2005 ([2]) amending Council Regulation (EC) No 1165/98.

Definitions

The definitions of short-term statistics variables are laid down in Commission Regulation (EC) No1503/2006 of 28 September 2006 ([3]).

The **employment index** shows the evolution of employment. Employment is defined as the total number of persons who work in the observation unit (including working proprietors or partners and unpaid family workers), as well as persons who work outside the unit, but who belong to it and are paid by it (for example, sales representatives, delivery personnel, repair and maintenance teams). Part-time workers are included as well. Excluded is manpower supplied to the unit by other enterprises. Member States can use the number of employees as an approximation of the number of persons employed.

The **production index** is a business cycle indicator showing the output and activity of industry (extraction, manufacturing and energy-related activities). The index provides a measure of the volume trend in value added at factor cost over a given reference period. A similar index exists for the construction sector.

The objective of the services **turnover index** is to show the evolution of the market for services. Turnover comprises the totals invoiced by the observation unit during the reference period. This corresponds to market sales of services supplied to third parties. It includes all duties and taxes on the services invoiced by the unit with the exception of the VAT invoiced by the unit vis-à-vis its customer and other similar deductible taxes directly linked to turnover.

Classifications

The classification of activities used in this publication is NACE Rev. 2 ([4]). The classification by the main industrial groupings (MIGs) ([5]) is based on a regrouping of activities from the Group level of NACE Rev. 2.

In this publication, industry is defined as NACE Rev. 2 Sections B, C, D and Division 36 for employment and Sections B, C and D for production, construction is NACE Rev. 2 Section F and services are defined as NACE Rev. 2 Sections G to J, M and N (excluding Divisions 72, 75 and 77, and Groups 70.1, 81.1 and 81.3).

Decomposition – forms of indices

The basic form of an index is its gross (also known as unadjusted) form or working day adjusted in the case of production indices. To facilitate analysis indices have been adjusted to account for seasonal effects. Seasonal adjustment aims to take account of the impact of the known seasonal factors that have been observed in the past.

Abbreviations and symbols

EU-27	European Union of 27 Member States
BE	Belgium
BG	Bulgaria
CZ	Czech Republic
DK	Denmark
DE	Germany
EE	Estonia
IE	Ireland
EL	Greece
ES	Spain
FR	France
IT	Italy
CY	Cyprus
LV	Latvia
LT	Lithuania
LU	Luxembourg
HU	Hungary
MT	Malta
NL	Netherlands
AT	Austria
PL	Poland
PT	Portugal
RO	Romania
SI	Slovenia
SK	Slovakia
FI	Finland
SE	Sweden
UK	United Kingdom

For more information:

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([1]) *Official Journal No L 162, of 5 June 1998.*

([2]) *Official Journal No L 191, of 22 July 2005.*

([3]) *Official Journal No L 281, of 12 October 2006.*

([4]) *Regulation (EC) No 1893/2006 of the European Parliament and of the Council of 20 December 2006. Official Journal No L 393/1 of 30December 2006.*

([5]) *Commission Regulation No 656/2007 of 14 June 2007. Official Journal No L 155/3, of 15 June 2007.*

Further information

Data: Eurostat Website: http://ec.europa.eu/eurostat

Data on "Short-term business statistics ":
http://epp.eurostat.ec.europa.eu/portal/page/portal/short_term_business_statistics/data/database

More information about "Short-term business statistics":
http://epp.eurostat.ec.europa.eu/portal/page/portal/short_term_business_statistics/introduction

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