

A comparison of methods used to compile PEEIs in short-term business statistics

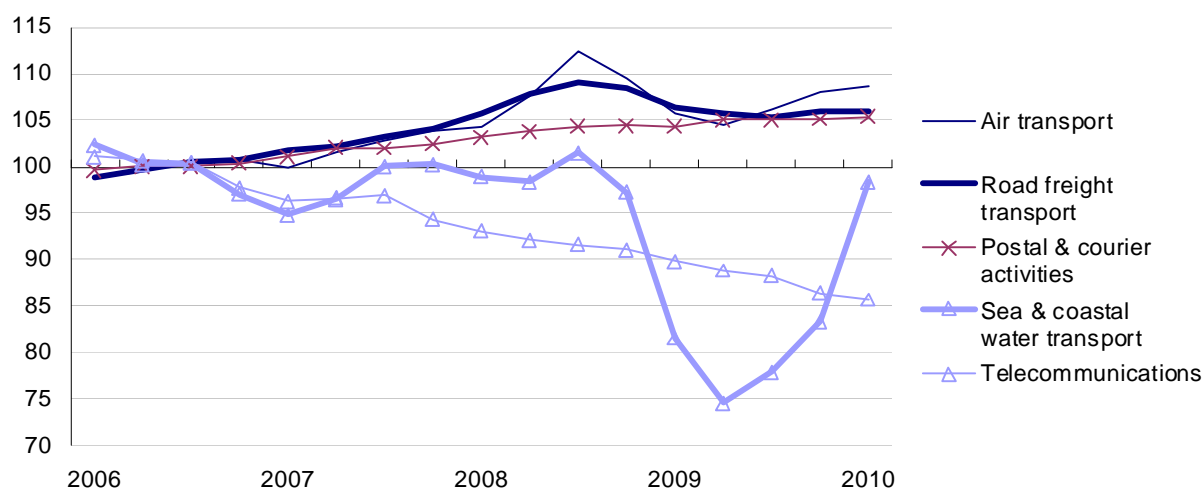
Eurostat compiles European Union and euro area infra-annual economic statistics relevant for short-term economic analysis. Among these, a list of indicators, called Principal European Economic Indicators (PEEIs) has been identified by key users as being of prime importance for the conduct of monetary and economic policy of the euro area.

Nine PEEIs concern short-term business statistics (STS), namely indices covering: industrial production, domestic industrial producer prices, industrial import prices, production in construction, building permits, the volume of sales in retail trade, service turnover, and services producer prices.

Since 2005 Eurostat has collected information from countries on the sources and methods they use to compile the PEEIs and synthesises into a report on one PEEI within STS every year. These reports became known as the PEEI in focus reports; they are valuable background information for users and for compilers alike. For 2010 the index chosen for the PEEI in focus report was the services producer price index (SPPI). The 2010 PEEI in focus questionnaire was returned by all of the EU Member States, as well as Norway, Switzerland and Croatia. The information provided generally relates to practices in the year 2009.

This publication first provides an insight into the recently released 2010 PEEI in focus report on SPPIs, then information on how to access all the PEEI in focus reports produced since 2005.

Figure 1: producer price indices for selected services, EU-27 (2006=100)



Source: Eurostat ([sts_sepp_q](#))

Service producer price indices (SPPIs)

SPPIs are intended to trace price movements that reflect market supply and demand conditions in order to facilitate the analysis of macro-economic conditions and to monitor inflationary pressures. They also serve as a deflator to convert the value of service output into volume measures.

Developing service price indices is a difficult task as service output is often hard to identify and even more difficult to measure reliably, as services may

be tailored or bundled in different ways for different users.

The STS Regulation specifies a list of activities for which SPPIs should be developed (see Table 1) between 2005 and the end of 2010. Together Eurostat and the OECD developed the [Methodological guide for developing producer price indices for services](#) to assist countries.

Table 1: activities for which the STS Regulation requires SPPIs

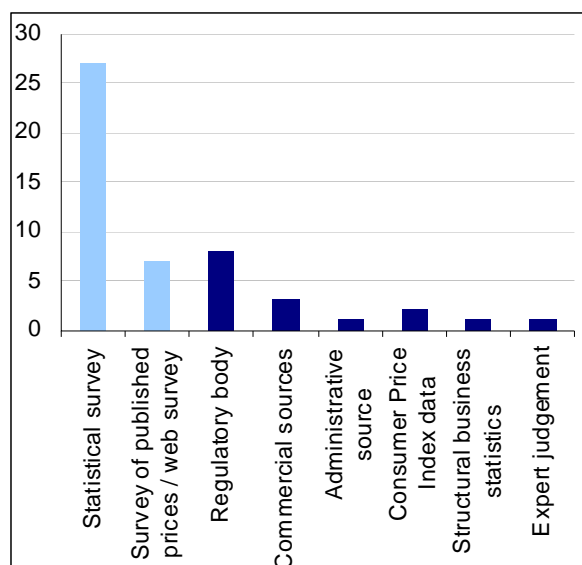
	NACE Rev. 2	Label
Transportation & storage	49.4	Freight transport by road & removal services
	50.1+50.2	Sea & coastal water transport - passenger & freight
	51	Air transport - passenger & freight
	52.1	Warehousing & storage
	52.24	Cargo handling
	53.1	Postal activities under universal service obligation
	53.2	Other postal & courier activities
Information & communication	61	Telecommunications
	62	Computer programming, consultancy & related activities
	63.1	Data processing, hosting & related activities; web portals
	63.9	Other information service activities
Professional, scientific & technical activities	69+70.2	Legal & accounting activities & management consultancy activities
	71	Architectural & engineering activities; technical testing & analysis
	73	Advertising & market research
Administrative & support services	78	Employment activities
	80	Security & investigation activities
	81.2	Cleaning activities

Source of data

All countries reported using statistical surveys to collect service producer price data. One quarter of countries reported collecting at least some data from published prices, of which several were surveys of web-based prices, for example for air transport or telecommunications. A similar number of countries reported using data from regulatory authorities, and this was also particularly common for telecommunications. Three countries reported using commercial sources, and in two cases it was specified that this concerned advertising activities.

Two countries specified using data from consumer prices, and it may well be that the use of this data may be more widespread: many other countries combine consumer price indices with SPPIs for business markets to produce a total PPI – see page 5 for information concerning indices for different markets.

Figure 2: sources of services price data (count of countries – multiple answers possible)



Source: PEEI in focus, 2010

Production and development of SPPIs

Table 2 shows the coverage of SPPIs included in the PEEI in focus report indicating for which activities SPPIs are produced and which are in various stages of development: this information was collected at the beginning of 2010; since then development work may have started for some activities and been completed for others. Spain, Hungary, Austria, Slovenia, Finland and Sweden produce SPPIs for all of the activities (excluding those that are not relevant, such as sea and coastal water transport in land-locked countries). A further nine countries have indices produced or under development in all activities shown. Six more countries have almost complete coverage in terms of either production or development, with just one

activity not yet in the development phase, and this is nearly always NACE Rev. 2 Group 63.9 (other information service activities). The remaining countries have several activities where they have not yet started development.

In terms of activities, SPPIs are most widely produced in postal and courier activities (NACE Rev. 2 Division 53) and transport activities (Divisions 49 to 51), and production is less common in information and communication services (Divisions 61 to 63).

The SPPI data that has been provided to Eurostat is available from Eurostat's [online database](#).

Table 2: status of development of SPPIs by activity (1)

NACE Rev. 2	49.4			50.1+50.2		51		52.1		52.24		53.1		53.2		61				62		63.1		63.9		69+70.2			71		73		78			80		81.2	
	49.4	50.1+50.2	51	52.1	52.24	53.1	53.2	61	62	63.1	63.9	69+70.2	71	73	78	80	81.2																						
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United Kingdom																																							
Norway																																							
Switzerland																																							
Croatia																																							

Produced and disseminated

Produced, but not yet disseminated

Under development

No index produced

Not relevant

(1) Cells with vertical stripes indicate that within that activity SPPIs for different services are at different stages of development; for example the SPPI for Division 69 might be produced and published while that for Group 70.2 is still under development.

Source: PEEI in focus, 2010

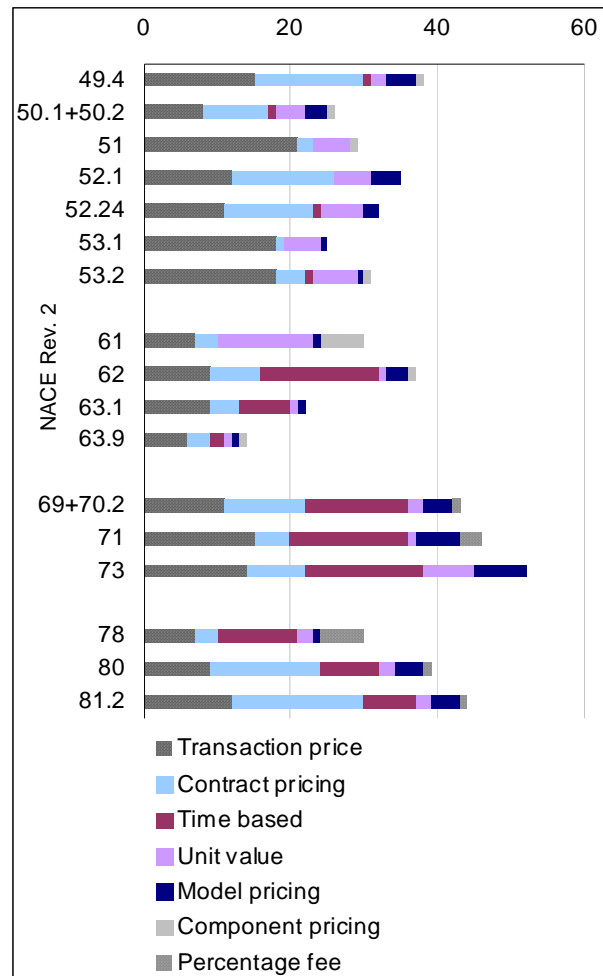
Pricing methods

Various methods are used because of the diversity of different types of service output: a brief explanation is given in Table 3, while Figure 3 indicates the extent to which the methods are used.

In road freight, water transport, cargo handling and storage, contract pricing and transaction prices are both commonly used. Air transport and postal and courier services are dominated by transaction pricing, reflecting the relatively abundant on-line information. Security and investigation activities, as well as cleaning activities rely more heavily on contract pricing, because of the often regular and standardised nature of this work. For professional, scientific and technical activities, as well as for computer programming, consultancy and related activities and also employment activities, time-based methods (often an hourly rate) are commonly used.

Model pricing is occasionally used in nearly all activities but rarely by more than a few countries, and is most common in professional, scientific and technical activities. Methods based on percentage fees are used in most professional, scientific and technical activities and administrative and support service activities, but not elsewhere. Equally, the reverse is true of component pricing, which is used in most transportation and storage activities, as well as information and communication services, but not in the other services. Although used to some extent in every activity, only in telecommunications is the use of unit values the most common pricing method.

Figure 3: pricing methods (count of countries – multiple answers possible)



See Table 1 for explanation of NACE Rev. 2 codes.

Source: PEEI in focus, 2010

Table 3: explanation of pricing methods

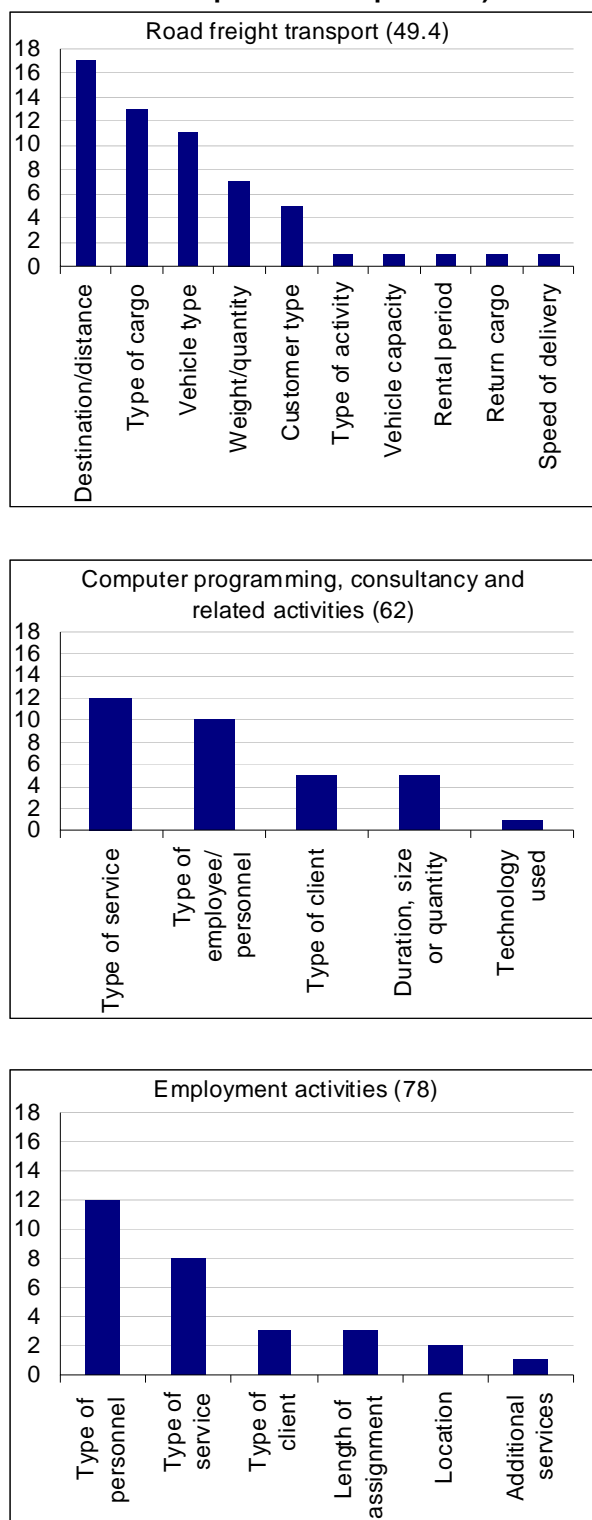
	Pricing method	Observation
Output methods	Transaction price for a repeated service, this might be a <u>list price</u>	Observe the price of a service product
	Contract pricing (real model, real prices) for repeated services in a long-term contract	Observe the total price of a real bundle of service products
	Component pricing (also bill method): weighted components (e.g. fictitious mobile phone user profile) valued with real prices for each component of the bundle	Observe the total price of a fictitious bundle of service products
	Model pricing (also virtual price): fictitious service product (or bundle of service products) that may never have existed for which a quote (fictitious price) is given	Estimate a total price of one fictitious service product or a fictitious bundle of service products
	Unit value : calculated from value of sales (or turnover) divided by the quantity of the service provided	Observe quantity and value and derive an average price
	Percentage fee	Observe prices/values of a related product
Time method	Time based method (also hourly rate or charge out rates)	Cost / hour

Source: PEEI in focus, 2010

Price determining characteristics

In order to follow price developments over time it is essential to precisely specify the unit of service output to be priced in successive months. Figure 4 gives three examples of the types of specifications commonly used by the countries, as included in the PEEI in focus report.

Figure 4: price characteristics used (count of countries – multiple answers possible)

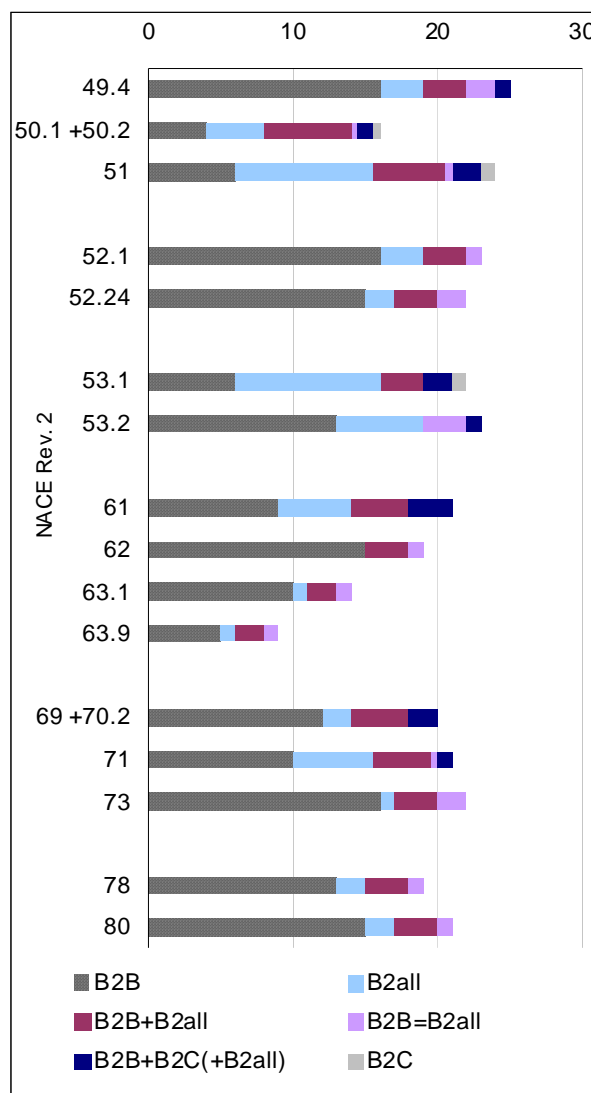


Source: PEEI in focus, 2010

Markets covered

For SPPIs the STS Regulation focused on services to businesses, and so indices referred to as B2B (business to business) were required, in other words showing price developments for business customers. In some activities (for instance air passenger transport) it is particularly difficult to compile B2B indices separately from B2all (business to all) indices, and as can be seen from Figure 5 the most common situation is for countries to produce either a B2B index or a B2all index. A number of countries compile both a B2B and a B2all index, and some also produce a B2C (business to consumer) index as well.

Figure 5: coverage of business and consumer markets (count of countries – each country counted only once)



See Table 1 for explanation of NACE Rev. 2 codes.

Source: PEEI in focus, 2010

Previous PEEI in focus reports

PEEI in focus reports have so far been produced for six of the nine PEEIs within short-term business statistics. These have been produced on a rotating basis, with one report produced each year since 2005 – see Table 4.

Table 4: History of PEEI in focus reports

Indicator	Year collected
Industrial production index	2004 / 2005
Volume of sales index: retail trade	2006
Industrial producer price index	2007
Index of production: construction	2008
Turnover index: services	2009
Services producer price index	2010

It is intended to complete this set of reports to cover industrial new orders, industrial import prices and building permits, and then to determine the procedure for updating all reports.

Reports available on CIRCA

The PEEI in focus reports are all available from the STS Circa groups which can be accessed through the methodology page on Eurostat's portal for short-term statistics –

http://epp.eurostat.ec.europa.eu/portal/page/portal/short_term_business_statistics/quality; in CIRCA the reports can be found in the **Library**, under the heading **STS Quality**.

The earliest reports are now 4-5 years old and methodological changes may have accompanied the change in classification (to NACE Rev. 2) and base year (to 2005) that took place during 2008 and 2009: the 2009 report on the turnover index in services was the first of these PEEI in focus reports to be produced after the migration to NACE Rev. 2.

Producing the reports

The annual cycle of producing the PEEI in focus reports starts with the design of a questionnaire to collect information from countries on their practices for the selected indicator. The questionnaires for different indicators have many points in common, for example information on the sample frame and sample design, frequency of data collection and definition of the variables. Nevertheless, each of the indicators has some methodological points that are of specific interest: some examples are presented in Table 5.

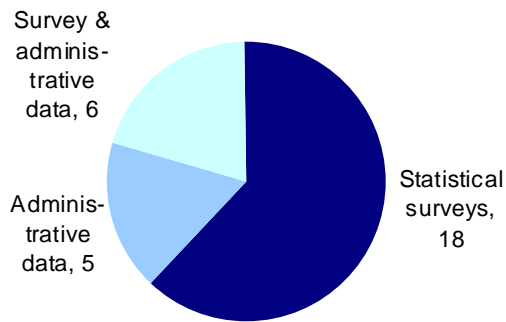
Table 5: Points of specific interest

Indicator	Specific subjects
Industrial production index	Basic type of data collected (turnover, production quantities, hours worked etc.); deflation; use of weights, working-day adjustment
Volume of sales index: retail trade	Treatment of VAT; source of deflator
Industrial producer price index	Selection of products and respondents; quality change; updating of the sample
Index of production: construction	Basic type of data collected (turnover, hours worked etc.); deflation; treatment of building and civil engineering
Turnover index: services	Compilation of deflated turnover
Services producer price index	Pricing method used; coverage; selection of products and respondents

The questionnaire is sent to all of the Member States, Norway, Switzerland and the candidate countries. Based on the information provided by each country a report is compiled that aims to provide an overview of the methods used.

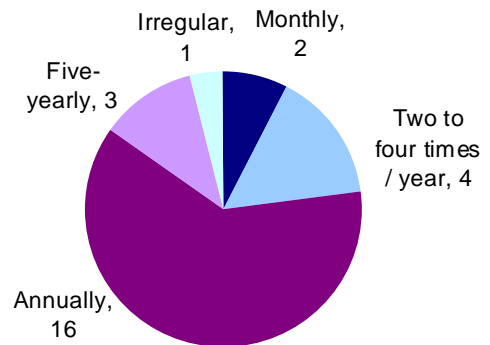
As an illustration, on page 7 there is one example of the analysis from each of the PEEI in focus reports produced between 2004 and 2009.

Figure 6: Services turnover, sources used (number of countries)



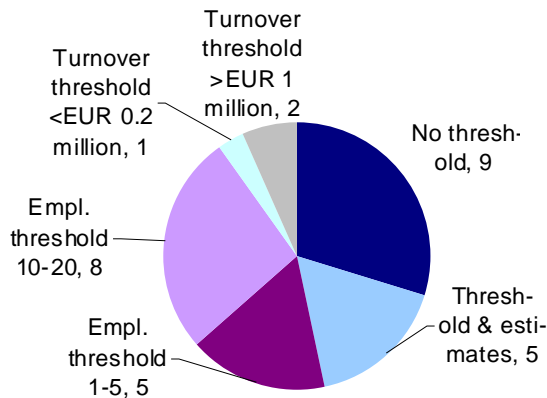
Source: PEEI in focus, 2009

Figure 8: Retail turnover, frequency of sample update (number of countries) (1)



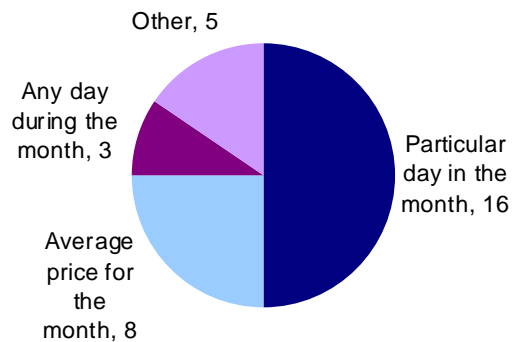
Source: PEEI in focus, 2006

Figure 7: Construction production index, use of thresholds to determine the population coverage (number of countries) (1)



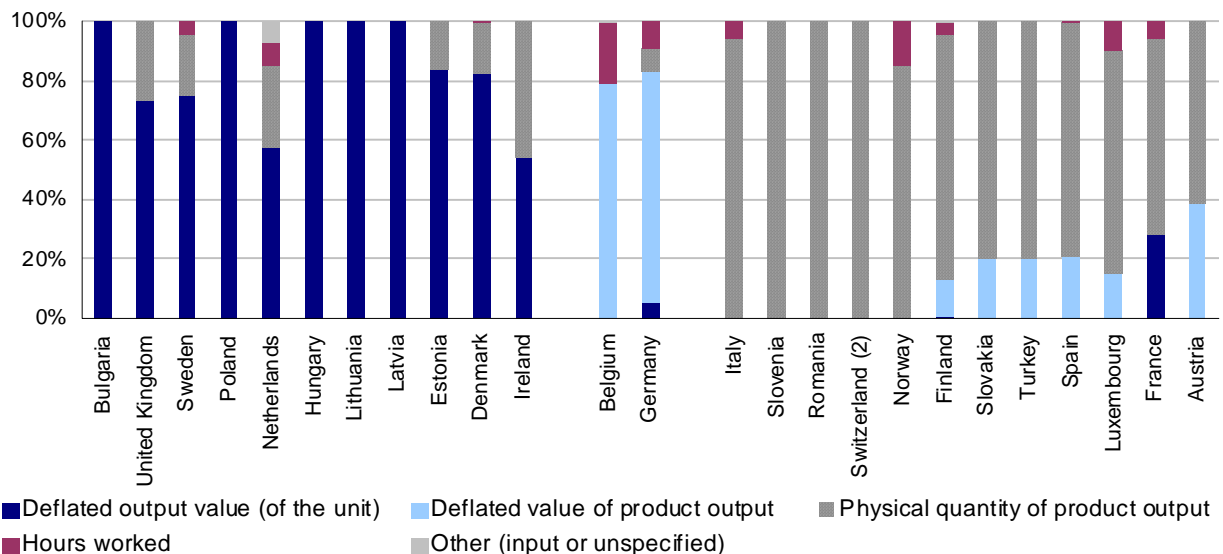
Source: PEEI in focus, 2008

Figure 9: Industrial domestic producer price index, main type of reference period used (number of countries) (1)



Source: PEEI in focus, 2007

Figure 10: Industrial production index, basic methods used (% weighted by value added)



Source: PEEI in focus, 2005

Further information

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

Select "Trade and Services"

More information about "Short-term business statistics"

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