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PEEIs in focus

A summary for the domestic producer price index

2007 edition

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Methodologies and
Working papers

PEEIs in focus

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Contents

Introduction

Important note: this report was compiled on the basis of information provided in 2006 and 2007 the methodology used by Member States may well have changed since then, in particular due to rebasing to 2005 and the introduction of NACE Rev. 2. Some countries provided updates in 2008.

What are PEEIs

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. These indicators are mainly released through Eurostat's website under the heading Euroindicators.

Eight PEEIs concern short-term statistics[1] (STS), of which six were included in the Council Regulation (EC) No 1165/98 of 19 May 1998 concerning short-term statistics (hereafter the STS Regulation) and the remaining two in the Regulation (EC) No 1158/2005 of the European Parliament and of the Council of 6 July 2005 amending Council Regulation (EC) No 1165/98 concerning short-term statistics.

PEEIs in focus: reports and other methodological documentation

In the early 1990s Eurostat developed a database recording the methodology used for industrial and construction STS; in the second half of the 1990s this was extended to also cover retail trade and services STS and was thereafter know as STS Sources. Since then the STS Sources database has been updated several times based on information provided by the EU Member States and the Acceding and Candidate countries, as well as Norway and Switzerland. The latest finalised update was done during 2004/2005. The latest update was done in 2007.

In March 2004 it was decided to carry out a quality project for the PEEIs that would result in a yearly report. As noted above eight PEEIs concern STS, of which six could be considered as operational in early 2004. Four quality components were selected for this project and the quality indicators that should be included in the quality report were chosen. In June 2004 Eurostat presented further details of this quality project for the PEEIs to the participants of an STS working party.

At the same meeting in June 2004 Eurostat proposed to consider a detailed, focused analysis for one PEEI every year, with the chosen PEEI changing each year. The first

indicator selected to be a "PEEI in focus" was the industrial production index, for which information was collected at the end of 2004 and into 2005. The retail volume of sales index was selected as the second indicator, with information being collected during 2006. The producer price index was selected as the third indicator, for which information was collected at the end of 2006 and into 2007. It is planned that the fourth indicator will be the index of production in construction.

As for previous indicators, Eurostat prepared a pre-filled template for a PEEI in focus report on the producer price index during winter 2006. This was sent to the (at that time EU-25) Member States as well as Bulgaria, Romania (EU Member States since 1.1.2007), Croatia, the former Yugoslav Republic of Macedonia, Turkey, Norway and Switzerland. The PEEI in focus report concerned information on five selected areas for the domestic producer price index, and was also aimed at providing an overview of the availability of PPIs other than the domestic PPI. All of the current (EU-27) Member States except Malta (which is currently developing a PPI) returned the reports having corrected and completed them. In addition, reports were received from Croatia, Turkey, Norway and Switzerland. Information included in the present report concerns only those countries that replied - the information provided generally relates to the year 2006.

Purpose of this report

The present report aims to present in a simple manner the information collected in the PEEI in focus reports for the domestic producer price index. Its purpose essentially is to allow countries to compare their methods with those in other countries, based on information presented in a structured, and as far as possible, coherent manner. Wherever possible the report presents information for each of the countries, as well as presenting summary information for all of the countries as a whole.

From 2008 this report in intended for public distribution. Some methods are presented with little introduction/explanation and for more detailed explanations please refer to the methodology manual on short-term business statistics available within the STS Interest Group on CIRCA.

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[1] i) industrial production index ii) industrial output price index for domestic market iii) industrial new orders index iv) industrial import price index v) production in construction vi) turnover index for retail trade and repair vii) turnover index for other services viii) corporate output price index for services.

Part A: Availability of PPIs

1. Overview of all PPIs collected/compiled

Table 1 shows that the vast majority of countries compile both a domestic and a non-domestic PPI. The exceptions being Turkey and Norway (no non-domestic index) and Luxembourg where domestic prices are compiled in order to contribute to the total index but not for the compilation of a separate domestic index.

Several countries reported that they do not compile a total producer price index. Equally, a number of countries noted that their indices are, at least in part, compiled from unit values rather than price information.

> Note that, as much as possible, the remainder of this report focuses on the domestic PPI, except for Luxembourg and Switzerland for which information is given for the total PPI.

Table1: Overview of producer price indices compiled

	Total PPI	Domestic PPI	Non-domestic PPI
BE	▓	▓	▓
BG	▓	▓	▓
CZ	▓	▓	▓
DK	▓	▓	▓
DE	▓	▓	▓
EE	▓	▓	▓
IE	▓	▓	▓
EL	▓	▓	▓
ES	▓	▓	▓
FR	▓	▓	▓
IT	▓	▓	▓
CY	▓	▓	▓
LV	▓	▓	▓
LT	▓	▓	▓
LU	▓		▓
HU	▓	▓	▓
NL	▓	▓	▓
AT	▓	▓	▓
PL	▓	▓	▓
PT	▓	▓	▓
RO	▓	▓	▓
SI	▓	▓	▓
SK	▓	▓	▓
FI	▓	▓	▓
SE	▓	▓	▓
UK		▓	▓
HR		▓	▓
TR		▓	
NO		▓	
CH	▓	▓	▓

Note that Portugal and Croatia indicated using unit value indices, at least in part, and this may also be the case in other countries.

Part B: Sources, coverage and sample size

2. Sources of the basic data

Table 2 shows that 23 countries use exclusively statistical surveys for compiling the domestic PPI.

In the remaining countries some data (generally a small proportion) comes from other sources, in several cases for energy products.

In nearly all countries data collection is monthly, the exceptions being Cyprus, the Netherlands, Finland and Switzerland where some data is collected less frequently.

Table 2: Overview of sources and frequency

	Main sources	Frequency
BE	Statistical surveys (80%); PRODCOM survey (10%), VAT turnover (5%), Energy department of Ministry of economical affairs (additional sources) 5%	Monthly
BG	Statistical survey carried out by National Statistical Institute	Monthly
CZ	Statistical survey carried out by the Statistical Office (95%), administrative source (5%)	Monthly
DK	Statistical survey (99.8%) and prices from Internet (0.2%)	Monthly
DE	Statistical survey carried out by the Federal Statistical Office	Monthly
EE	Statistical survey	Monthly
IE	Statistical survey carried out by the Central Statistics Office of Ireland	Monthly
EL	Statistical survey	Monthly
ES	Statistical survey	Monthly
FR	Statistical survey carried out by the public administration	Monthly
IT	Statistical survey	Monthly
CY	Statistical sample survey in manufacturing and mining; consumption data in value and quantity from the single electricity company; statistical survey of the 10 water companies	Monthly for mining and manufacturing; two-monthly for electricity; monthly for water except for desalination which is quarterly
LV	Statistical survey	Monthly
LT	Statistical survey carried out by Statistics Lithuania	Monthly
LU	Statistical survey	Monthly
HU	Statistical survey carried out by the staff of the Hungarian Central Statistical Office	Monthly
NL	Statistical survey	18% collected monthly, 59% quarterly, 18% half-yearly and 5% yearly: the indices are compiled monthly
AT	Statistical survey by the statistical office	Monthly
PL	Statistical survey conducted by the Central Statistical Office of Poland	Monthly
PT	Statistical survey	Monthly
RO	Statistical survey carried out by NIS	Monthly
SI	Statistical survey (CENE-DOMA/M) carried out by the national Statistical Office of the Republic of Slovenia	Monthly
SK	Statistical survey	Monthly
FI	Statistical survey	All price indices are produced monthly; approximately 23% of the prices are collected monthly (weighted share of 46%)
SE	Statistical survey	Monthly
UK	Apart from a statistical survey, a very small amount of data is gathered from other sources, for example from the London Metal Exchange; energy data are collected by the Department of Trade and Industry (DTI) and the Department for Environment, Food and Rural Affairs (DEFRA) supply agricultural prices; information provided in PEEI in focus mainly concerns the statistical survey	Monthly
HR	Statistical survey	Monthly
TR	Statistical survey	Monthly
NO	Statistical survey; in addition a minor amount of data is gathered from other sources, for example from the London Metal Exchange and the Bureau for Labour Statistics; energy data is mainly gathered from Nordpool	Monthly
CH	Statistical survey carried out by the public administration (95%), statistical survey carried out by trade organisations (5%)	Monthly, quarterly or half-yearly depending on price fluctuations of product groups; indices are compiled monthly

3. Population coverage

3.1 Statistical unit and coverage

Table 3.1 shows that generally countries aim to cover CPA/NACE Sections C to E with the indices that they compile, but that there are many exceptions.

The diversity of the exceptions can be seen in Figures 3.1a to 3.1f.

19 of the 30 countries reported that the population covered units within a particular <u>activity range</u>, while 11 reported that the population covered units producing products within a particular <u>product range</u>.

Table 3.1: Unit and coverage

	Unit	Product coverage	Activity coverage	Observation units within the activity range specified	Observation units belonging to enterprises within the activity range specified	Observation units with products within the range specified
BE	Enterprise	CPA Sections C to E except Groups 12.0, 22.1, 23.3, 29.6, 35.1, 35.3, 37.1, 37.2; Divisions 10 to 12 do not exist	Sections C to E	■		
BG	Enterprise	CPA Sections C to E except Groups 12.0, 23.3, 29.6, 35.1, 35.3, 37.1, 37.2	NACE Sections C to E except Groups 12.0, 23.3, 29.6, 35.1, 35.3, 37.1, 37.2	■		
CZ	Enterprise	CPA Sections C to E, except 11.2, 12, 13, 14.3, 14.4, 14.5, 17.3, 17.6, 18.1, 18.3, 19.1, 22.3, 23.3, 24.2, 24.7, 29.6, 33.5, 35.1, 35.3, 35.5, 36.2, 36.4, 37.2	NACE Sections C to E, except 11.2, 12, 13, 14.3, 14.4, 14.5, 17.3, 17.6, 18.1, 18.3, 19.1, 22.3, 23.3, 24.2, 24.7, 29.6, 33.5, 35.1, 35.3, 35.5, 36.2, 36.4, 37.2			■
DK	KAU	CPA Section C to E except Group 35.1	NACE Sections C to E except Group 35.1			■
DE (1)	Local units	CPA Sections C to E, except 10.3, 11.2, 12, 13, 14.11, 14.13, 14.3, 15.94, 15.95, 17.52, 18.3, 20.5, 22.25, 22.32, 23.3, 25.12, 26.25, 27.33, 29.6, 33.3, 35.11, 35.3, 35.43, 36.21	NACE Sections C to E: 10.3, 11.2, 12, 13, 14.11, 14.13, 14.3, 15.94, 15.95, 17.52, 18.3, 20.5, 22.25, 22.32, 23.3, 25.12, 26.25, 27.33, 29.6, 33.3, 35.11, 35.3, 35.43, 36.21			■
EE	KAU		Sections C to E	■		
IE	Enterprise and/or local unit		NACE Sections C and D except Groups 10.1, 10.2, 17.6, 18.1, 22.1, 22.3, 24.2, 26.3, 27.1, 27.2, 28.3, 28.4, 29.6, 31.5, 33.3, 33.5, 35.2, 35.3, 35.4, 35.5, 36.2, 36.3, 37.1		■	
EL	KAU	CPA Sections C to E	NACE Sections C to E			■
ES	Local unit	CPA Sections C to E except 10.3, 11, 12, 13.1, 17.1, 17.2, 22.23-22.25, 23.3, 26.24, 2625, 26.66, 27.21, 27.35, 27.45, 27.5, 28.11, 28.4, 28.5, 29.21, 30.01, 35.2, 35.43, 35.5, 36.21, 37, 41	NACE Sections C to E except 10.3, 11, 12, 13.1, 17.1, 17.2, 22.23-22.25, 23.3, 26.24, 2625, 26.66, 27.21, 27.35, 27.45, 27.5, 28.11, 28.4, 28.5, 29.21, 30.01, 35.2, 35.43, 35.5, 36.21, 37, 41	■		
FR	Varies: the main criterion is that the unit is producing at least one selected product	CPA Sections C to E except Groups 10.2, 10.3, 11.1, 11.2, 12.0, 13.1, 13.2, 18.1, 22.1, 22.3, 23.3, 29.6, 33.5, 35.1, 35.3, 36.3, 37.1, 37.2, 40.3	NACE Sections C to E except Groups 10.2, 10.3, 11.1, 11.2, 12.0, 13.1, 13.2, 18.1, 22.1, 22.3, 23.3, 29.6, 33.5, 35.1, 35.3, 36.3, 37.1, 37.2, 40.3			■
IT	Enterprise		NACE Sections C to E except Groups 12.0, 13.1, 23.3, 35.1, 35.2, 35.3	■		
CY	Enterprise		NACE Sections C to E	■		
LV	Enterprise		NACE Sections C to E, except Groups 12.0, 23.3, 29.6, 35.3, 37.2	■		
LT	KAU	Sections C to E except Groups 29.6, 35.1 to 35.3, 36.1 to 36.4, 37.2; no production in Groups 12.0, 13.1, 13.2, 23.1, 23.3 and 33.5				■

(1) Often enterprises bundle the price observations of their local units; note that KAU data is used for weights.

	Unit	Product coverage	Activity coverage	Observation units within the activity range specified	Observation units belonging to enterprises within the activity range specified	Observation units with products within the range specified
LU	KAU		NACE Sections C to E except 10 to 13, 15.812, 15.813, 18, 19, 23, 29.322, 30, 32, 33.102, 35, 36, 37 which do not exist/not considered to be industrial		▓	
HU	Legal unit (enterprise), & some KAU	CPA Sections C to E, except 10.1; 12.0; 13.1; 14.3; 14.4; 14.5; 15.2; 23.3; 28.3; 33.5; 35.1; 35.3; 36.3	NACE Sections C to E except 11.1; 12.0; 13.1; 14.3; 14.4; 14.5; 15.2; 22.1; 23.3; 28.3; 33.5; 35.1; 35.3; 37.2	▓		
NL	Enterprise & parts of enterprises		Sections C to E except groups 12.0, 22.1, 23.3, 29.6, 35.1, 35.3, 37.1, 37.2	▓		
AT	Local kind of activity unit ("Betrieb")	CPA Sections C to E, except 12.0, 23.3	NACE Sections C to E	▓		
PL	Enterprise	CPA Sections C to E except Groups 12.0, 22.1, 23.3, 29.6, 35.1, 35.3, 37.1, 37.2	NACE Sections C to E	▓		
PT	Local KAU	CPA Sections C to E except 13.1, 18.3, 20.4, 29.1, 29.3 29.4 29.6, 31.1, 31.6, 33.3, 33.5, 34.2, 35.1, 35.3, 35.5, 36.3, 36.4, 36.6, 37.1, 37.2; no production in 10 to 12 23.1, 23.3	NACE Sections C to E except 13.1, 18.3, 20.4, 29.1, 29.3 29.4 29.6, 31.1, 31.6, 33.3, 33.5, 34.2, 35.1, 35.3, 35.5, 36.3, 36.4, 36.6, 37.1, 37.2; no production in 10 to 12 23.1, 23.3	▓		
RO	Enterprise	NACE Sections C to E except Groups 12.0, 22.1, 23.3, 29.6, 30.0, 35.1, 35.3, 37.1, 37.2	NACE Sections C to E except Groups 12.0, 22.1, 23.3, 29.6, 30.0, 35.1, 35.3, 37.1, 37.2			▓
SI	Enterprise	Sections A to E, except 01, 05, 10.1, 10.3, 11, 12, 13, 14.3, 14.5, 17.3, 18.3, 20.5, 22.3, 23.1, 23.3, 26.7, 28.3, 33.3, 33.4, 33.5, 35.2, 35.3, 35.5, 36.3, 37, 40.2, 40.3; no production in 16	Sections A to E, except 01, 05, 10.1, 10.3, 11, 12, 13, 14.3, 14.5, 17.3, 18.3, 20.5, 22.3, 23.1, 23.3, 26.7, 28.3, 33.3, 33.4, 33.5, 35.2, 35.3, 35.5, 36.3, 37, 40.2, 40.3; no production in 16	▓		
SK	Enterprise	CPA Sections C to E except 10.1, 11.2, 12.0, 17.3, 19.1, 22.3, 23.1, 23.3, 33.3, 35.5, 36.3, 37.1, 37.2.		▓		
FI	Enterprise		NACE Sections C to E	▓		
SE	Enterprise	Sections C to E except Division 37				▓
UK	Enterprise or a list of local units	Sections C and D except 10-13, 23.1	NACE Sections C and D except 10-13		▓	
HR	Enterprise	Sections C, D and E, except 10, 12, 13, 23.3, 29.6, 35.1, 35.3, 37	NACE Sections C, D and E, except 23.3, 29.6, 35.1, 35.3, 37			▓
TR	Enterprise and KAU	CPA Sections C to E except 10.3, 11.2, 12.0, 15.2, 17.3, 17.6, 18.3, 20.3 to 20.5, 22.3, 23.3, 26.8, 28.3, 28.5, 29.6, 31.5, 33.3, 33.5, 34.2, 35.1, 35.3, 35.5, 36.2 to 36.5, 37, 40.3	NACE Sections C to E			▓
NO	Enterprise or local unit	Sections C to E except 12, 22.1, 23.3, 29.6, 35.1, 35.3, 41	Sections C to E except 12, 22.1, 23.3, 29.6, 35.1, 35.3, 41	▓		
CH	Enterprise	Sections A and C to E, except 10 to 13, 14.3 to 14.5, 15.2, 17.3, 17.6, 18.1, 18.3, 20.5, 22.1, 22.3, 23.1, 23.3, 28.3, 29.6, 30, 35.1, 35.4, 35.5, 36.2 to 36.5, 37.2, 40.3, 41	Sections A and C to E, except 10 to 13, 14.3 to 14.5, 15.2, 17.3, 17.6, 18.1, 18.3, 20.5, 22.1, 22.3, 23.1, 23.3, 28.3, 29.6, 30, 35.1, 35.4, 35.5, 36.2 to 36.5, 37.2, 40.3, 41			▓

Outside of mining and quarrying products there are only a few products that are excluded by more than just a few countries, the most notable being Groups 23.3, 29.6, part of 35.1, 35.3, 37.1 and 37.2, all of which are excluded from the coverage of output price indices in the STS Regulation. In most countries some products are not produced and countries may have reported these as being excluded.

Figures 3.1a to 3.1f: Count of countries excluding certain CPA codes
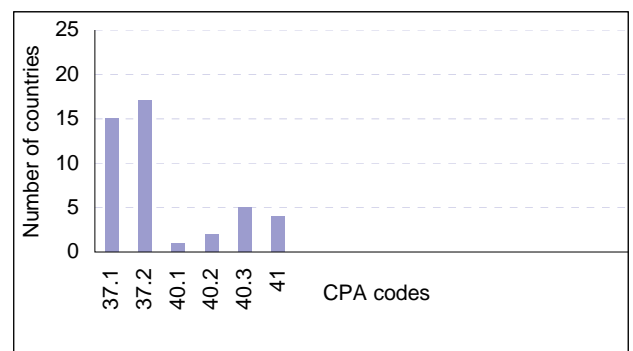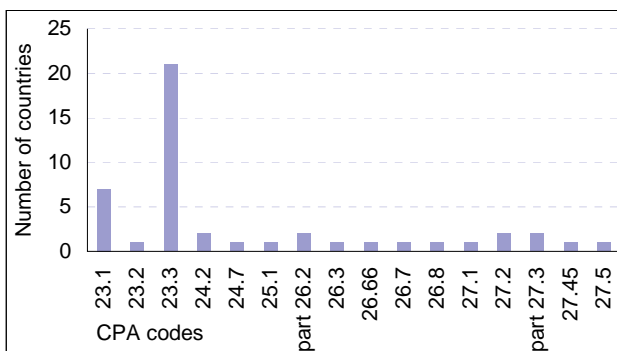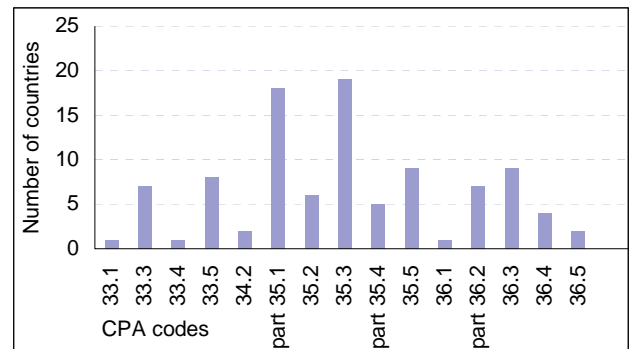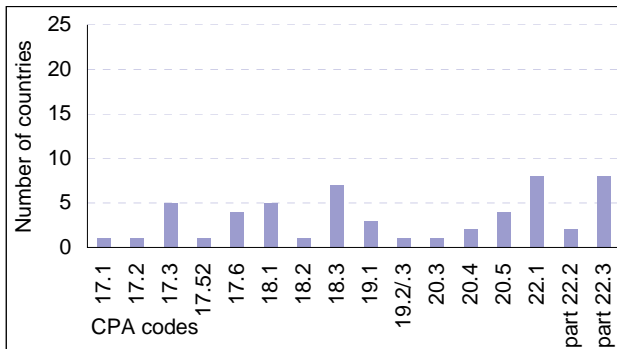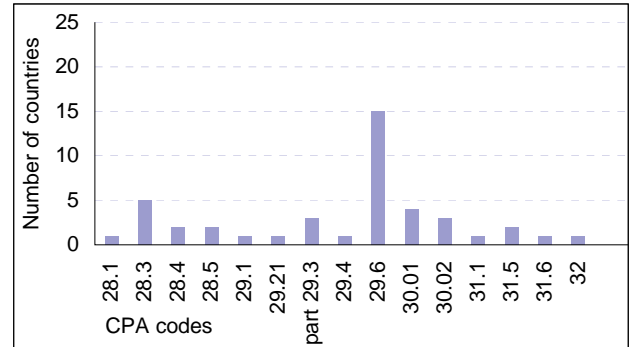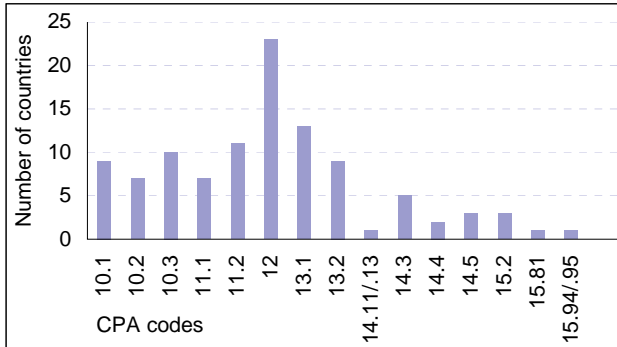
3.2 Size coverage and other exclusions from the national population of interest

As well as determining the national population of interest in terms of activity or product range, close to three quarters of countries also limit their surveys to exclude smaller enterprises.

In more than half of all countries an employment threshold is used, normally 10 or 20 (employees or persons employed), while in one fifth of the countries an annual turnover threshold is used - see figure 3.2a.

Table 3.2 provides information on the size thresholds used by each country, as well as showing other exclusions from the national population: in the Czech Republic natural persons are excluded, in Romania unincorporated enterprises are excluded, and in Finland output that is considered as defence production is excluded.

Figure 3.2a: Count of countries with and without size thresholds (1)
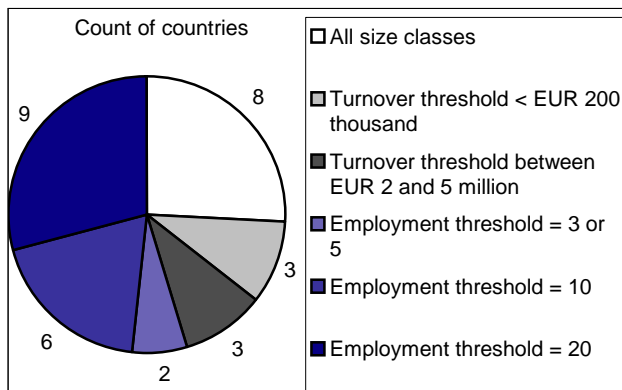
(1) Note that in Belgium a threshold is used but details not specified; Denmark and Slovakia included twice because of a combined employment and turnover threshold.

Table 3.2: Size thresholds used by countries; other exclusions from the national population of interest

	Size coverage; other elements of coverage
BE	No threshold; enterprises subject to PRODCOM survey
BG	Enterprises with turnover of 75 thousand BGN or more
CZ	No threshold; natural persons are excluded (but these are included in weights)
DK	Enterprises with annual turnover < DKK 20 million (~EUR 2.7 million) and enterprises with < 20 persons employed are not selected as new price reporters
DE	Local units employing 20 persons or more (for some activities 10 persons or more)
EE	Units employing 10 persons or more
IE	Units employing 3 persons or more
EL	Enterprises with 10 and more employees and smaller units important in terms of production or sales values
ES	Local units employing 20 persons or more
FR	Units with a turnover > EUR 5 million
IT	No threshold
CY	No threshold; only Government controlled area of Cyprus covered
LV	No threshold
LT	Sections C and D: industrial units with annual sales > LTL 0.2 million; smaller industrial enterprises whose production is vitally important; non-industrial enterprises with annual sales of industrial activity > LTL 0.5 million Section E: no threshold
LU	No threshold
HU	No threshold
NL	20 or more employees
AT	Enterprises with at least 20 persons employed; the threshold may be lowered but not below 10
PL	Enterprises with 10 or more employees
PT	No threshold
RO	Enterprises with 20 employees and more; unincorporated enterprises of the household sector are excluded
SI	Enterprises and establishments with 20 or more employees
SK	Legal units with 20 and more employees; legal units with turnover < SKK 70 million (or sometimes 50 million) in 2000 are excluded
FI	Enterprises with turnover > approximately EUR 170 000 in 2000; defence production excluded
SE	Enterprises with 5 or more employees
UK	Units employing 10 persons or more
HR	Enterprises employing 10 persons or more
TR	Before 2004, enterprises with 10 or more employees; from 2004 enterprises with 20 or more employees
NO	Enterprises employing 10 persons or more
CH	No threshold

3.3 Size of the national population of interest

Given the very varied use of size thresholds, and the differences in activity coverage the nationally defined populations are quite different. Table 3.3 shows the size of these populations in absolute terms (number of enterprises.

Table 3.3 also shows the coverage rates. Interpretation of these has to be careful. As has been noted above many countries use a size class threshold, and many also exclude some activities/products, and it is not certain that the coverage rates (which are measured in turnover terms) take account of both of these differences or just one of them.

Table 3.3: Size of the national population of interest and coverage rates

| | Number of units in the nationally defined population | | | | | | Coverage rates (nationally defined population relative to full STS requirements) in terms of turnover (%) | | | | | |
	Total industry	Intermediate goods	Capital goods	Consumer durables	Consumer non-durables	Energy	Total industry	Intermediate goods	Capital goods	Consumer durables	Consumer non-durables	Energy
BE	15 202	4 157	2 116	802	3 624	77	89.4	93.9	90.4	88.0	91.1	82.2
BG	11 575	3 882	1 876	738	4 844	235	99.1	99.2	98.5	97.2	99.0	100.0
CZ	7 699	n/a	n/a	n/a	n/a	n/a	98	n/a	n/a	n/a	n/a	n/a
DK	2 806	1 058	853	222	658	15	85.4	88.9	92.0	88.6	99.0	28.8
DE (1)	40 868	14 776	11 302	1 882	9 578	3 330	102.5	99.6	99.3	99.4	114.9	99.8
EE	n/a	n/a	n/a	n/a	n/a	n/a	90	n/a	n/a	n/a	n/a	n/a
IE	5 293	2 364	1 169	507	2 250	0	66.3	72.4	72.9	58.5	56.3	0.0
EL	5 595	2 640	817	495	2 500	89	>90	n/a	n/a	n/a	n/a	n/a
ES	21 675	8 244	4 901	1 554	6 896	80	n/a	n/a	n/a	n/a	n/a	n/a
FR	23 474	n/a	n/a	n/a	n/a	n/a	99.7	n/a	n/a	n/a	n/a	n/a
IT	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CY	6 337	2 117	1 142	877	2 188	13	100	100	100	100	100	100
LV (2)	n/a	n/a	n/a	n/a	n/a	n/a	100	100	100	100	100	100
LT (3)	3 517	1 349	396	280	1 398	94	94	91	98	98	90	99
LU	1 002	274	187	1	316	224	98.6	99.3	98.1	54.6	97.4	100.0
HU	8 973	3 233	2 200	462	2 818	260	~80	n/a	n/a	n/a	n/a	n/a
NL	6 200	n/a	n/a	n/a	n/a	n/a	80	n/a	n/a	n/a	n/a	n/a
AT	6 871	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
PL	30 228	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
PT	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
RO	10 611	3 652	1 400	663	4 520	376	n/a	n/a	n/a	n/a	n/a	n/a
SI	2 299	1 030	464	189	572	44	n/a	n/a	n/a	n/a	n/a	n/a
SK (4)	2 049	n/a	n/a	n/a	n/a	n/a	96	n/a	n/a	n/a	n/a	n/a
FI	n/a	4 848	608	2 438	3 613	69	n/a	n/a	n/a	n/a	n/a	n/a
SE	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
UK (5)	139 225	56 760	28 825	11 885	41 545	210	80	100	100	100	100	n/a
HR	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
TR	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
NO	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CH	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Note that the number of units in the population in total industry is less than in the MIGs for some countries.
(1) The coverage rates above 100% are due to the inclusion of NACE Group 22.1 in the national coverage despite not being in the STS coverage.
(2) Coverage rate inferred from other information in the report.
(3) Coverage rates based on sales of industrial production.
(4) Data are for 2000 (base year)
(5) The number of units in the population and the coverage rates seem high given the use of a size threshold to determine the national population.

Figure 3.3a shows an analysis of the distribution of the national population of interest between the five MIGs. Note that this analysis is based on the number of units, and as such the relatively small share of the energy MIG (which is traditionally dominated by a few large enterprises) is unsurprising.

Figure 3.3a: Share of MIGs in the total number of units in the nationally defined population (sum of countries with complete available data)
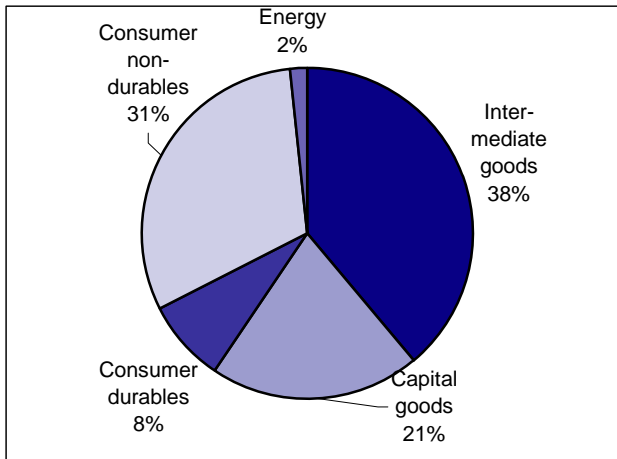
Figure 3.3b shows for each country (with available data) the coverage rates of the national population of interest compared with the full requirements of the STS Regulation - as noted above care has to be taken with the interpretation of these figures, whether they take account of differences both in terms of activity/product and size coverage.

Figure 3.3b: Coverage rates (in turnover terms) of the nationally defined populations relative to the STS requirements (%)
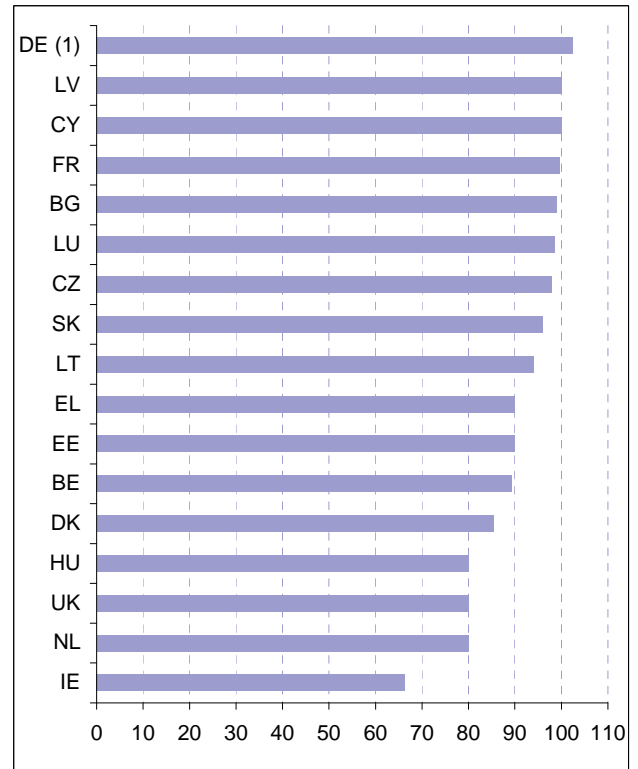
(1) The coverage rate above 100% is due to the inclusion of NACE Group 22.1 in the national coverage despite not being in the STS coverage.

4. Order of selection of observation units or products

Points 5 to 7 of this report focus on the selection of units and products for producer price surveys. Unlike most business surveys, producer price surveys are generally not simple surveys of observation units, but involve selecting

> i) observation units who will provide the price information
>
> ii) selecting products (from a list such as a Prodcom List or a classification such as CPA) and then
>
> iii) determining precisely the specification of the representatives for which observation units will give a price quote for each product.

The first two of these stages can be done in either order, namely i) selecting first the products and then the observation units that produce these products, or ii) selecting first the observation units and then identifying which products they produce. Table 4 provides an overview of the order in which these first two stages are performed in each country.

Just under three quarters of the countries select first the products to be surveyed and then find the appropriate observation units, while the remaining countries select first the observation units to be surveyed and then the products.

Table 4: Overview of the order of selection of products and observation units

	Products then observation units selected (level at which products/categories selected)	Observation units then products selected
BE	▨	
BG	▨	
CZ	CPA 6	
DK	HS 8	
DE	▨	
EE	▨	
IE		▨
EL	▨	
ES	▨	
FR		▨
IT	▨	
CY	▨	
LV		▨
LT	▨	
LU		
HU	▨	
NL	▨	
AT	ÖProdcom 10	
PL		▨
PT	▨	
RO	▨	
SI		▨
SK	CPA 6	
FI	▨	
SE	▨	
UK	▨	
HR	▨	
TR	▨	
NO		▨
CH	▨	

5. Selection of units

5.1 Method of selection of the observation units

Table 5.1 is shown in three parts: 15 countries using sampling, two countries with an exhaustive coverage of the nationally defined population (NL and SK), and 13 countries using a cut-off method of selection.

A small majority of countries using sampling techniques use purposive sampling, while the remainder use PPS (probability proportional to size).

Table 5.1: Selection of observation units (grey coloured rows indicate countries that select first observation units)

	Threshold for take-all strata	If sample, basic method	Description
BE	Prodcom survey threshold	PPS	No specific strata
BG	None	PPS	PPS techniques involves identifying a stratum that will be selected with certainty (i.e. probability=1) and the remaining strata selected with probabilities based on their relative contribution to sales on domestic market. The number of the units selected in the sample depends on the degree of industrial concentration of the enterprises from each sampled PRODCOM group. In production with high degree of industrial concentration (largest 5 enterprises have 75% of sales) only the largest enterprises are selected. Where the largest 5 enterprises have less than 75% of sales more enterprises are selected with PPS.
CZ	None	Purposive	Minimum 40% of domestic sales and minimum 5 units in each 4-digit CZ-CPA
DE	None	Purposive	The minimum numbers of price observations is determined: as a rule for each 0.01% of weight (of a given product) one observation unit is selected. Within each basket position (as a rule 9-digit heading of the national version of CPA) all local units are ranked by output and the largest one are chosen. Exceptions are possible when a high level of concentration is observed or when the price development in the past was largely the same for all observation units
EE	None	Purposive	Enterprises are chosen with a record of stable production and sales activity and large shares of sold production on the domestic market
CY	None	Purposive	Enterprises are selected that produce the selected products, with attention to larger units and units that export
LV	Varied	Purposive	Enterprises are chosen with a record of stable production and sales activity and a large share of sold production on the domestic market; Exhaustive if annual turnover exceeds from LVL 100/700 thousand and persons employed 30/50 or more: thresholds vary between activities; sampling below these thresholds
LT	None	Purposive	Observation units are selected with a record of stable production and a large share of sales in the respective product heading; selected units should cover about 70-80% of sales in the product heading
LU	None	Purposive	
PL	None	Purposive	Selection criteria is based on the annual value of sold production of enterprises with more than 9 employees
FI	None	PPS and purposive	Strata are 3-digit NACE
SE	Varied	PPS	The sample is proportionally allocated to the different markets (domestic, export and import) according to the number of observations in the current PPI sample. From the fixed sample size, the average value that a price specification represented is calculated ("represented value"). For a stratum to be of acceptable quality it should contain at least 5 price specifications. The final stratum structure contains 110 strata. For each stratum a PPS sample (one step sampling) is drawn where the sampling unit is the combination of corporate identity number and CN8. Sampling probabilities for the sampling unit i, $U_i = n \times$ value /stratum value, where n is the sample size. If the sample size is 10 for a stratum and a sampling unit is 10 percent or more of total value then sampling probabilities are greater than 1. Then the object (sampling unit) will be chosen with certainty and is withdrawn before the PPS sampling.
UK	None	PPS	The strata are based on the level of sales. Three size strata are defined within a product group.
NO	Local KAUs with more than 100 employees	PPS	All local KAUs over 100 employees are selected with certainty, and in four additional strata the PPS approach was applied
CH	None	Purposive	

Table 5.1 continued

	Description
NL	Exhaustive survey within the nationally defined population
SK	Exhaustive survey within the nationally defined population

	Description
DK	Varies: sufficiently large number of units selected top-down
IE	50% of turnover within each activity
EL	About 70% of turnover within each NACE class
ES	At least 60% within each 4-digit CPA
FR	At least 50% and most often 70% of the commodity group turnover is covered; other units may be selected to obtain a better coverage of a particular product family
IT	90% of value added within NACE Rev. 1.1 Section D
HU	Units that provide turnover data for products sold on the domestic market monitored by the Annual Product Statistics
AT	At least 3 (the most important) units within each product heading
PT	80% of the sales value within each product heading
RO	At least 60% of the sales value within each activity
SI	A minimum (unspecified) share of turnover within each activity
HR	A minimum (unspecified) share of production within each product (group)
TR	At least 80% of the production/sales value within each Group

5.2 Size of the national sample

The selection criteria indicated under point 5.1 above lead to the selection of the sample sizes indicated in table 5.2 below. Note that for some countries the relation between the sample size and the population size does not appear to be consistent with the information given on the method of selecting units.

Figure 5.2a provides an analysis of an aggregate of the national samples for the five MIGs - this shows a similar breakdown to that in Figure 3.3a, with a slightly larger share in the sample for intermediate goods (42% compared with 38%) and energy (3% compared with 2%) and smaller shares for the remaining MIGs. Note that although the country coverage used in Figure 5.2a is broader than that in Figure 3.3a, with five more countries included (among which Italy), repeating the analysis in Figure 5.2a with the same countries as used for Figure 3.3a does not change greatly the above observations. Figure 5.2b provides a similar analysis for each individual country, while Figure 5.2c shows the overall sample size.

Figure 5.2a: Share of MIGs in the total number of units in the sample (sum of countries with complete available data)
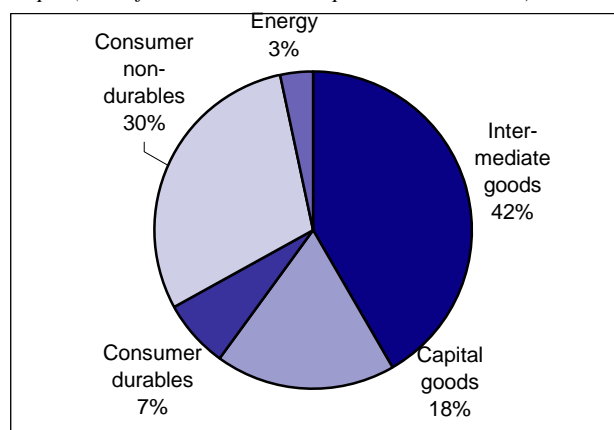

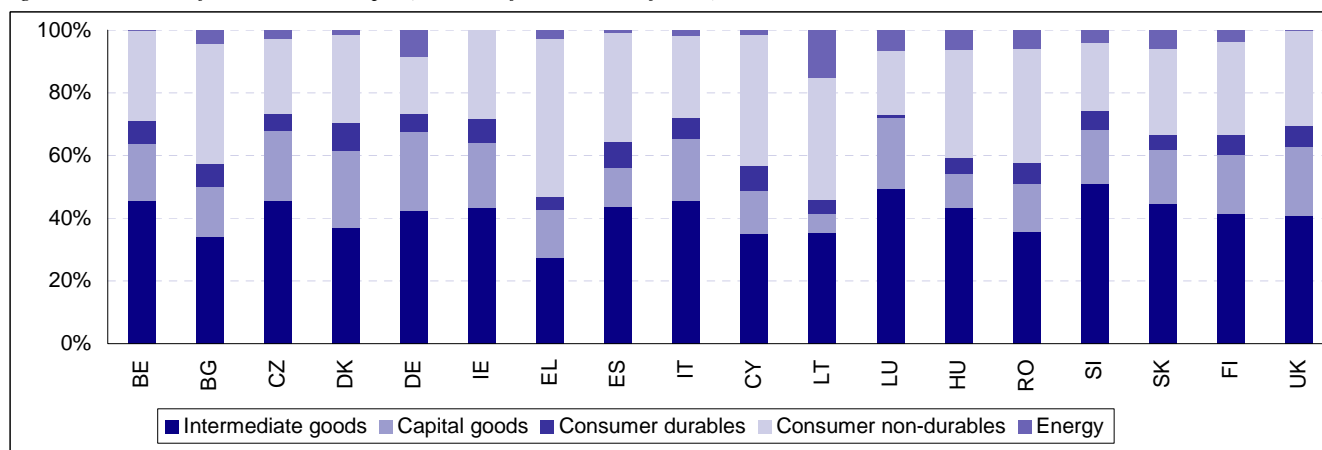Figure 5.2b: Share of MIGs in the sample (in terms of the number of units)

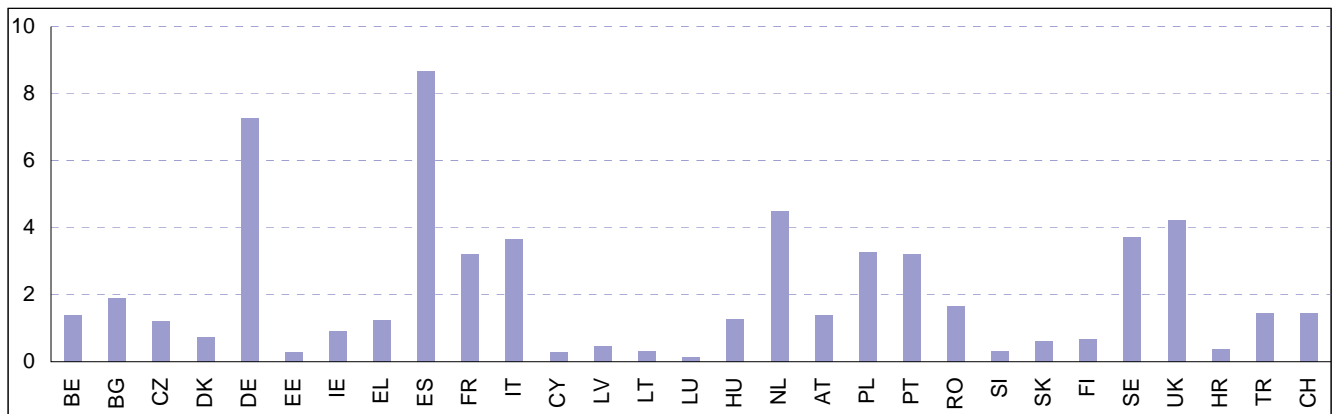*Figure 5.2c: Sample size: number of units (thousands)*

Table 5.2: Size of the sample and coverage rates

	Number of units in sample						Coverage rates (share of turnover among selected units, relative to the nationally defined population) (%)					
	Total industry	Intermediate goods	Capital goods	Consumer durables	Consumer non-durables	Energy	Total industry	Intermediate goods	Capital goods	Consumer durables	Consumer non-durables	Energy
BE (1)	1 395	468	183	78	293	2	47	36	41	24	46	70
BG	1 907	648	306	136	736	81	81	80	66	73	70	94
CZ	1 200	619	304	72	329	36	60	n/a	n/a	n/a	n/a	n/a
DK	748	276	185	66	211	10	64	56	47	54	76	85
DE (2)	7 270	3 087	1 817	429	1 322	615	74	72	89	73	60	55
EE	300	n/a	n/a	n/a	n/a	n/a	57	n/a	n/a	n/a	n/a	n/a
IE	909	486	234	83	318	0	66	72	73	59	56	~
EL	1 250	366	208	52	677	37	>70	>70	>70	>70	>70	>70
ES	8 650	3 883	1 094	737	3 101	67	n/a	n/a	n/a	n/a	n/a	n/a
FR	?3 200	n/a	n/a	n/a	n/a	n/a	65	n/a	n/a	n/a	n/a	n/a
IT	3 667	1 691	738	252	966	69	n/a	n/a	n/a	n/a	n/a	n/a
CY	280	98	38	23	117	4	n/a	n/a	n/a	n/a	n/a	n/a
LV	461	n/a	n/a	n/a	n/a	n/a	66	n/a	n/a	n/a	n/a	n/a
LT (3)	328	117	21	14	130	50	97	94	72	99	99	100
LU	122	60	28	1	25	8	83	90	69	100	69	85
HU	1 266	550	135	66	436	79	90	87	77	81	89	95
NL	4 500	n/a	n/a	n/a	n/a	n/a	90	n/a	n/a	n/a	n/a	n/a
AT	?1 400	n/a	n/a	n/a	n/a	n/a	53	n/a	n/a	n/a	n/a	n/a
PL	3 260	n/a	n/a	n/a	n/a	n/a	?70	n/a	n/a	n/a	n/a	n/a
PT	3 217	n/a	n/a	n/a	n/a	n/a	80	n/a	n/a	n/a	n/a	n/a
RO	1 666	597	251	112	608	98	75	96	81	92	76	51
SI	309	172	58	20	74	13	n/a	n/a	n/a	n/a	n/a	n/a
SK	598	292	114	30	182	38	81	n/a	n/a	n/a	n/a	n/a
FI	660	273	125	42	196	24	n/a	n/a	n/a	n/a	n/a	n/a
SE	3 700	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
UK	4 240	1 800	975	285	1 345	5	27	31	27	27	30	n/a
HR	385	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
TR	1 455	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
NO	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CH	1 450	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

(1) Coverage rate for energy is estimated.
(2) Data refer to 2000 (base year). Based on enterprises - total turnover of an enterprise is included in the calculation of the coverage rate if at least one local unit of this enterprise is selected. For some products secondary sources are used for price observation (consumer prices, commodity-market quotations, hedonic regressions) - the number of units behind these calculations is not included in the data.
(3) Four units are included in more than one of the MIGs; coverage rates based on sales of industrial production.

6. Selection of products

6.1 Method of selection of the products

Table 6.1 shows the methods of selecting products in each country: in nearly every country a judicious sample or cut-off selection is used to select the largest products.

Table 6.1: Selection of products (grey coloured rows indicate countries that select first products)

	Description	Sample frame for product selection
BE	The largest products are selected within each 4-digit NACE stratum	PRODCOM survey
BG	PPS	Product groups are sampled from the PRODCOM survey; then for each group the sample of reporting units is made.
CZ	The largest products are selected in each 6-digit CPA; after selection of observation units a judicious selection of products is agreed with the observation units	
DK	Statistics Denmark select the product groups (HS 6-digit); after selection of observation units the observation units select suitable products	Statistics Denmark select the product groups (HS 6-digit) from the Industrial Commodity Statistics
DE	In each CPA 4-digit, 9-digit (national) CPA products are selected to reach a cumulative share of at least 60% of production value; additionally products may be selected for important users. For 2000 (base year) selected products represent 79% of the total production value of CPA Sections C to E	The annual results of the PRODCOM survey are used
EE	Products are chosen with high sales volume in the domestic market based on the PRODCOM List	
IE	A judicious selection of products is agreed with each observation unit	
EL	Products are selected with high sales value during the base year (2000) - a threshold is set for the product to be selected	The annual PRODCOM survey results of the base year
ES	Cut-off sample of the largest products within each 4-digit CPA stratum	PRODCOM survey
FR	A judicious selection of products is agreed with each observation unit	
IT	Cut-off sample of the largest products within each CPA stratum	
CY	In each 4-digit activity the most important products (7-digit Cypriot CPA) are selected based on production value in the five yearly census; after selection of observation units a judicious selection of products is agreed with the observation units	
LV	A judicious selection of products is agreed with each observation unit	
LT	A judicious selection of products is agreed with each observation unit. The inquiry form for selection of specific products that have to be priced in each product heading are sent to selected observation units together with the lists of the sampled product headings (PGPK 10 digit level). The observation units are asked to supply a detailed specification of the most important variety that they consider will be produced throughout the coming year. In the case of a newly selected unit, the annual inquiry is undertaken with the assistance of staff of the Price Statistics Division of Statistics Lithuania	
LU	A judicious selection of products is agreed with each observation unit	
HU	At the 4 digit level the product groups are selected by judgmental sampling (the most important groups)	The annual PRODCOM Survey
NL	The sample is judiciously drawn so that the selected product groups cover about 80% of turnover	The PRODCOM survey
AT	1. The most important CPA 6 digits per CPA 4 digits are selected: the production value of the selected CPA 6 digits must represent at least 15% of the production value of each CPA 4 digit. 2. The most important ÖPRODCOMS are selected, so that the production values of the ÖPRODCOMS must represent at least 15% of the production value of each CPA 6 digit.	The annual PRODCOM survey.

Table 6.1 continued

	Description	Sample frame for product selection
PL	Reporting units selected for the survey choose representatives of products. First they choose the kinds of activities which together amount to at least 70% of the total annual sales of the enterprise. Then on the basis of the present and foreseen structure of production they choose groups of products taking into account those groups with significant sales value in their industrial activities (the target is that the sum of the chosen groups of products amount to at least 60% of the value of this activity). Within the selected groups of products the observation unit selects specific representatives according to specified criteria. The reporting units make the choice themselves according to the following criteria: - for each group of products the reporting unit chooses at least two representatives with significant share of sales value in the group - more representatives are selected if groups include high diversity of assortment; - price trend of the representative should be as much as possible typical for price changes in its group; - list of representatives is updated in accordance with changes in the assortment structure of - if products are manufactured in several species then one specific specie is surveyed; - representatives can be only products which appeared in the turnover in the reporting mont - representatives should be produced for a longer period of time.	
PT	Products are selected in order of importance of sales in order to achieve 70% of total industrial sales	Annual PRODCOM survey
RO	The largest products in turnover terms are selected in each activity, such that the selected products represent at least 60% of sold production	
SI	From each class of NACE Rev. 1.1 the products with the biggest turnover on the domestic market are selected A judicious selection of products is agreed with each observation unit Where it is possible the selection of products is limited mainly to the products of mass production During the year new and significant products and substitutional products are introduced by experts in the enterprises	Sales value from the annual industry report using addition information from producers
SK	Within each stratum (4-digit and 6-digit of CPA), based on turnover, products are selected to reach 40 to 70% of turnover	Observation units define representative products in a special 5-yearly survey for selecting representatives
FI	The selection of products is made on a judicious basis together with respondents	
SE	n/a	Results of the PRODCOM survey
UK	PPS	The annual PRODCOM survey
HR	A cut-off sample of the largest products is selected within each CPA strata	
TR	A cut-off sample of the largest products is selected within each CPA strata	Annual industrial production survey
NO	A judicious selection of products is agreed with each observation unit	
CH	Specific products are selected by the observation unit	

6.2 Number of products selected

The selection criteria indicated under point 6.1 above lead to the selection of the number of products indicated in Table 6.2 below. It is not clear whether every country has interpreted the word "products" in the same way and it is recommended that the terminology used should be clearer in the report in future. For example prices for a single product could be collected from several observation units leading to multiple price quotes. Equally a single observation unit could provide multiple quotes (each with different specifications) for a single product.
Figure 6.2a provides an analysis of the samples for the five MIGs in terms of products - compared with figure 5.2a the most notable difference is the relatively high share of energy products.
Figure 6.2b shows a similar analysis for the countries.

Figure 6.2a: Share of MIGs in the total number of products in the sample (sum of countries with complete available data)
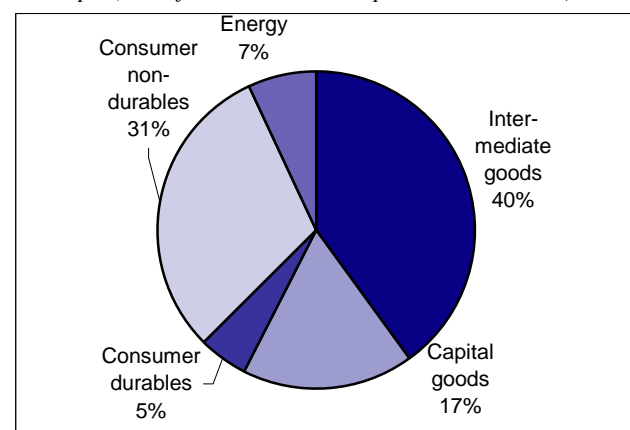
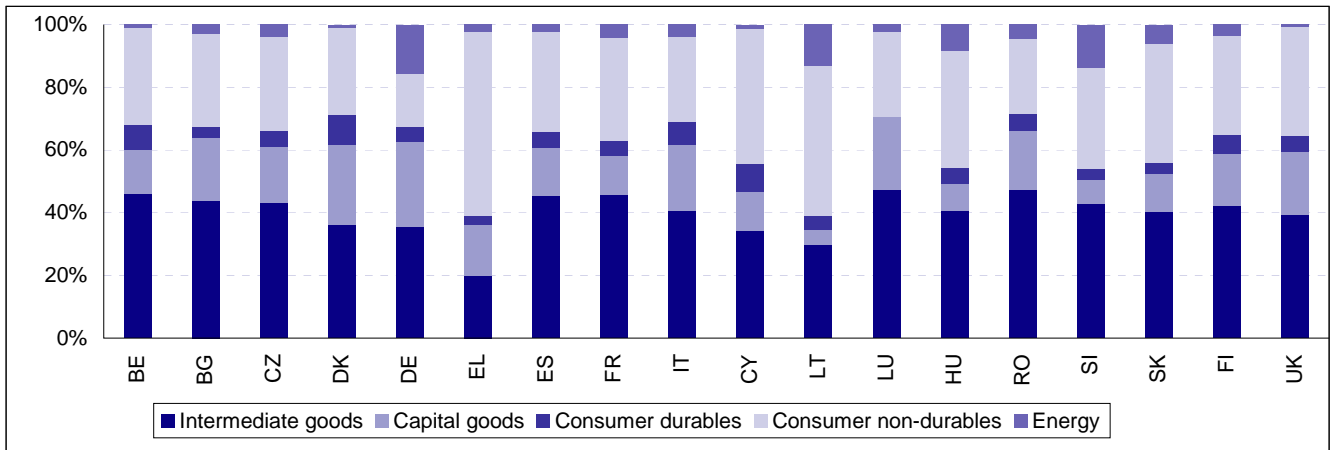*Figure 6.2b: Share of MIGs in the sample (in terms of the number of products)*

Table 6.2: Number of selected products and average number per observation unit

	Number of products in sample						Average number of products/price quotes each observation unit asked to provide					
	Total industry	Intermediate goods	Capital goods	Consumer durables	Consumer non-durables	Energy	Total industry	Intermediate goods	Capital goods	Consumer durables	Consumer non-durables	Energy
BE	1 563	718	218	130	481	16	1.4	1.4	1.1	1.5	1.5	2.3
BG	1 078	472	215	40	319	32	4.8	5.1	4.0	3.3	5.3	4.9
CZ	4 713	2 046	829	245	1 409	184	n/a	n/a	n/a	n/a	n/a	n/a
DK	1 791	649	458	168	500	16	2.4	2.4	2.5	2.5	2.4	1.6
DE (1)	15 266	5 433	4 110	710	2 618	2 385	2.1	1.8	2.3	1.7	2.0	3.9
EE	540	n/a	n/a	n/a	n/a	n/a	1.8	n/a	n/a	n/a	n/a	n/a
IE	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
EL (2)	3 100	633	503	92	1 839	74	2.5	1.7	2.4	1.8	2.7	2.0
ES	1 450	661	220	77	459	34	3.0	3.0	2.0	3.0	4.0	7.0
FR	15 000	6 855	1 877	736	4 882	650	4.0	n/a	n/a	n/a	n/a	n/a
IT	1 102	446	234	81	297	44	n/a	n/a	n/a	n/a	n/a	n/a
CY	1 076	370	134	94	465	13	3.8	3.8	3.5	4.1	4.0	3.3
LV	1 261	n/a	n/a	n/a	n/a	n/a	3.0	n/a	n/a	n/a	n/a	n/a
LT	886	264	42	40	423	117	2.7	2.3	2.0	2.9	3.3	2.3
LU	906	429	211	2	243	21	7.4	7.2	7.5	2.0	9.7	2.6
HU	5 826	2 361	510	297	2 169	489	4.6	4.3	3.8	4.5	5.0	6.2
NL	9 700	n/a	n/a	n/a	n/a	n/a	3.5	n/a	n/a	n/a	n/a	n/a
AT (3)	?3 300	n/a	n/a	n/a	n/a	n/a	2 to 3	n/a	n/a	n/a	n/a	n/a
PL	19 000	n/a	n/a	n/a	n/a	n/a	5 to 6	n/a	n/a	n/a	n/a	n/a
PT	16 532	n/a	n/a	n/a	n/a	n/a	5.1	n/a	n/a	n/a	n/a	n/a
RO	1 736	822	328	90	414	82	n/a	n/a	n/a	n/a	n/a	n/a
SI	1 846	788	146	62	597	253	6.0	n/a	n/a	n/a	n/a	n/a
SK	3 735	1 508	448	130	1 424	225	6.0	5.0	4.0	4.0	8.0	6.0
FI	651	275	108	40	205	23	1.5	1.5	1.3	1.4	1.7	1.4
SE	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
UK	7 280	2 875	1 445	380	2 525	55	1.7	1.6	1.5	1.3	1.9	11.0
HR	420	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
TR (4)	4 034	n/a	n/a	n/a	n/a	n/a	2.8	n/a	n/a	n/a	n/a	n/a
NO	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CH	850	n/a	n/a	n/a	n/a	n/a	7.0	n/a	n/a	n/a	n/a	n/a

When the information provided concerns the number of price quotes this is shown with a light grey background. When the information provided concerns the number of product headings/categories this is shown with a dark grey background.
(1) Prices are observed for a total of about 1 600 commodity headings.
(2) Prices are observed for a total of 419 commodity headings.
(3) Prices are observed for a total of 1 000 product groups (ÖPRODCOM 10-digit).
(4) Prices are observed for a total of 653 products.

6.3 Maximum number of products per individual observation unit

Most countries do not formally limit the number of price quotes that any individual respondent may be required to provide. Cyprus (4), Estonia (5) and Belgium (around 8) do have a limit.

7. Frequency of updating sample

12 countries report updating the sample of observation units every five years, with three of these indicating that minor changes are made more frequently. Three countries indicate that they continuously update the sample - this may be monthly or annually. The remainder generally update every year or every two years.

Updating the selection of products generally has the same rhythm as the selection of observation units, with only Luxembourg noting a major difference.

Table 7: Frequency of updating selection of observation units and products

	Sample of observation units	Sample of products
BE	Approximately every two years	Approximately every two years
BG	In principle 5 yearly; if a significant enterprise appears on the market it is included in the survey	In principle 5 yearly; if an enterprise that is already included in the sample starts production of products from an important PRODCOM group its specifications are included in the survey
CZ	Continuously	Continuously, as necessary; a fundamental revision is carried out every five years
DK	Continuously	Continuously
DE	A fundamental revision of the sample is carried out every 5 years in connection with re-basing procedures. However, the samples are subject to permanent adjustments due to necessity of replacements forced by changes in the market structures	A fundamental revision of the sample is carried out every 5 years in connection with re-basing procedures. However, the samples are subject to permanent adjustments due to necessity of replacements forced by changes in the market structures
EE	Annually	Annually
IE	n/a	n/a
EL	5 yearly	5 yearly
ES	5 yearly; minor changes are made yearly	5 yearly
FR	5 yearly	5 yearly
IT	5 yearly	5 yearly
CY	5 yearly	5 yearly
LV	Annually	Annually
LT	Annually	Annually
LU	5 yearly	Continuously, as necessary
HU	Updated annually	Updated annually
NL	5 yearly, with the base year change	5 yearly, with the base year change
AT	5 yearly	5 yearly
PL	Annually, at the beginning of the year; monthly verification	Annually, at the beginning of the year; monthly verification
PT	5 yearly	5 yearly
RO	Annually	Annually
SI	Annually	Annually
SK	Continuously	Updating of products at 4-digit CPA level is carried out continuously; updating of representatives with individual observation units is done every 5 years
FI	5 yearly	5 yearly
SE	Annually (one fifth reviewed each year)	Annually (one fifth reviewed each year)
UK	Annually	Annually
HR	Partly annually	Partly annually
TR	Annually	Annually
NO	2 yearly	2 yearly
CH	When required	When required

Part C: Definition of prices

8. Definition of prices

8.1 Definition of variable

The points most frequently noted by countries are the exclusion of VAT (no country indicated including VAT) and of excise duties (Ireland, Greece, Finland and Switzerland indicated including excise duties).
Some countries indicate that prices are at the time of order, and a smaller number at the time of delivery.
An approximately equal number of countries exclude subsidies and include them.

All countries that mentioned transport costs exclude them.
The question on definitions could have been better structured by asking countries to indicate from a predetermined list which elements of the definition are respected and which not, and it is recommended to do this in future. In particular the treatment of rebates/discounts is ambiguous.

The report also looked at the use of standard product definitions or tailored specifications: all countries except Belgium and Ireland make a direct agreement with units on specifications of product/transactions; Belgium and Ireland reported using a standard product list.

Table 8.1: Definition of prices

|	Definition	Headings for which list prices are used
BE	Information not available	Particularly for consumer goods, in agreement with reporting units
BG	Ex-factory price Includes discounts and other reductions Excise duties and VAT are excluded In most cases prices stated at the time of order (contract)	In principle, none
CZ	Excluding VAT and excise tax Excluding transport and incidental costs	Used for example for regulated prices (Classes 40.12 and 40.13)
DK	Ex-factory selling prices Excluding VAT	None
DE	"As in STS Regulation"	Accepted when specifications that are comparable over time can not be determined (e.g. because only individual products); list prices are used especially for some products in CPA Division 29
EE	Excluding VAT and excise duty	None
IE	Price invoiced to customers Excluding delivery charges itemised on the invoice separately Before discounts or surcharges are applied Before the addition of direct subsidies Exclusive of VAT; inclusive of excise duties	Used if no alternative is available
EL	Ex-factory prices Excluding VAT; including all other duties and taxes (not linked to turnover)	n/a
ES	Ex-factory price Excluding transport and distribution costs Not price lists, nor average prices nor unit values Excluding VAT and similar deductible taxes and including subsidies on products received by the producer Including transactions between enterprises belonging to the same activity, and excluding transactions within one enterprise which only correspond to accounting transfer prices	None
FR	Include discounts Exclude VAT Exclude transport costs where possible. Only arm's-length transactions are taken into account	None
IT	Prices at the time of order Ex-factory or warehouse Excluding taxes (VAT) and customs duties Excluding subsidies	n/a
CY	Mining, quarrying and manufacturing: excluding VAT and excise duties Electricity: average unit value (excluding VAT) Water desalination and purification: single contractual price Water distribution: representative price (excluding VAT) for the most common type of consumer	None
LV	Excluding VAT and excise duty	None

Table 8.1 continued

	Definition	Headings for which list prices are used
LT	Ex-factory prices Including all discounts, premiums, rebates, subsidies, etc. Excluding VAT and excise duties	Used for 40 specific products within the following categories (PGPK): 20.10.10.32; 22.12.11.00; 22.13.11.00; 22.22.20.79; 25.12.10.50; 26.30.10.59; 33.20.63.70. Tariffs used for NACE Groups 40.2 and 40.3 and Division 41
LU	"As in STS Regulation"	None
HU	Prices at the time of sale Exclude VAT, registration tax of cars and excise duties Include discounts and other reductions and subsidies if any Excluding transport costs	None
NL	Excluding VAT and excise duties Prices at the time of sale (delivery)	Used for a few products (about 1%)
AT	Ex-factory price Excludes VAT	None
PL	Excluding the taxes on the product (VAT and excise tax) Excluding rebates and deductions Including product subsidies received Prices of products on the questionnaire are calculated by dividing the monthly sold value of a product by its quantity	None
PT	"As in STS Regulation"	None
RO	Excluding VAT	None
SI	Includes compensation (assumed to be subsidies) Excluding VAT Excluding discounts and rebates	None
SK	Excluding VAT and excise duties Excluding transportation costs For some products the prices include excise duties	Used in parts of Groups 13.1, 14.1, 15.2, 15.3, 17.2, 17.4, 28.1, 28.2, 29.7, 31.5, 32.3, 34.2, 35.2 Regulated prices in Division 40
FI	Note that the price definition of nationally published indices differs from the price definition of those indices that are sent to Eurostat. For indices sent to Eurostat: ex-factory price, including excise taxes	None
SE	Ex-factory Invoiced prices less discounts Prices at the time of order (contracts); list prices adjusted for rebates are also accepted Excluding VAT and excise duties	In some cases
UK	Prices stated at the time of order (moment of contract) Include discounts and other reductions Exclude VAT Where appropriate, collected including & excluding excise duty Include special taxes	Used only when the manufacturer is unable to provide the order price to a specific customer or prices are tainted by varying volumes of sales. Avoided whenever possible.
HR	Ex-factory Prices less discounts and rebates Excluding VAT and excise duty	None
TR	Order prices Including discounts Excluding VAT and excise duties Unit values used for Divisions 11 and 40	None
NO	Prices for "regular" customers Extraordinary discounts should not be included Excluding VAT Prices stated at time of order	None
CH	Ex-factory gate Excluding VAT Including excise duties Excluding discounts/rebates Prices at the time of order	None

8.2 Time period/point reference

Table 8.2 and Figure 8.2a look at another aspect of the definition, which is the choice of accounting convention. As can be seen half of the countries ask for prices on a particular date (normally the 15th of the month), a quarter ask for an "average" price for the month, and three of the countries ask for a price from any date in the month. The remainder specify particular periods or dates during the month.

Figure 8.2a: Accounting convention: reference point/period: count of countries (1)
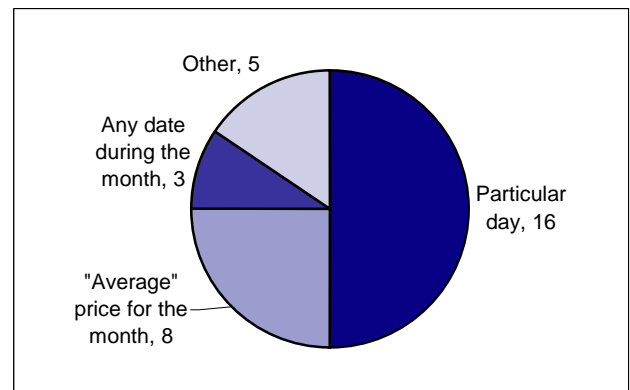
(1) Slovenia and Finland counted twice each.

Table 8.2: Accounting convention: reference point/period (main methods are shaded).

	Particular day	"Average" price for the month	Any date during the month	Other
BE				
BG	15th			
CZ	12th	For crude petroleum products and others		Average from 1st to 18th
DK	15th			
DE	15th			
EE	15th			
IE	15th			
EL	15th (or closest)			
ES	15th			
FR				
IT				
CY	First Thursday of the month	For electricity		
LV	15th	For electricity, wood products and some others goods		
LT	15th	For refined petroleum products, crude petroleum, distribution and trade of electricity, some wood and plastic products, some paints and varnishes		
LU				
HU				
NL				Average of several days
AT	15th			
PL				
PT	15th			
RO	15th			
SI				
SK				For important prices: between the 10th and 12th calendar days. For other prices: between the 1st and 9th calendar days
FI	15th			
SE				
UK				
HR				Prices are requested for the period of the 20th of the previous month till the 20th of the current month
TR		Used exceptionally		Prices on 5th, 15th, 25th day of the month
NO	15th			
CH				From the 1st to the 8th of the month

Part D: Response and non-response

9. Response rates

The issue of non-response can be evaluated from a number of perspectives, three of which are presented here. The first is a simple snapshot of the non-response rate at the time of first publication, the second shows how this evolves over the course of one monthly round of data collection, and the third looks at the differences in response rates for the 12 calendar months.

### *9.1 Response rate at the time of the first national publication of the data*

Table 9.1 and Figure 9.1a show the response rate at the time of first publication, and in most countries the response rate is in excess of 90%.

Table 9.1: Response rates at the time of national publication

	Time of national publication	Unweighted response rates						Weighted response rates					
		Total industry	Intermediate goods	Capital goods	Consumer durables	Consumer non-durables	Energy	Total industry	Intermediate goods	Capital goods	Consumer durables	Consumer non-durables	Energy
BE	25 days	97 to 98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BG	30 days	98.79	98.61	98.69	99.26	98.78	100	99.89	99.96	99.87	99.96	99.59	100
CZ	10 w. days	95.05	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
DK	15 days	98.3	99.3	96.2	97	99.1	100	97.4	99.8	87.3	97.1	99.6	100
DE	20 days	95.8	95.3	95.5	94.6	96.3	99.3	96.4	95.8	96.2	94.7	94.5	99.9
EE	20 days	95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
IE	25 days	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
EL	27 to 30 days	97 to 100	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
ES	25 days	93	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
FR	25 days	88	n/a	n/a	n/a	n/a	n/a	93	n/a	n/a	n/a	n/a	n/a
IT (1)	n/a	85	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CY	25 to 30 days	100	100	100	100	100	100	100	100	100	100	100	100
LV	15 w. days	100	100	100	100	100	100	100	100	100	100	100	100
LT	5 w. days	100	100	100	100	100	100	100	100	100	100	100	100
LU	45 days	95 to 98	n/a	n/a	n/a	n/a	n/a	95 to 99	n/a	n/a	n/a	n/a	n/a
HU	30 days	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
NL	1 month	>95	n/a	n/a	n/a	n/a	n/a	95	n/a	n/a	n/a	n/a	n/a
AT	50 days	95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
PL	35 days	95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
PT	20 days	92	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
RO	35 days	88.65	89.04	85.66	84.48	89.59	92.93	n/a	n/a	n/a	n/a	n/a	n/a
SI	21 days	100	100	100	100	100	100	100	100	100	100	100	100
SK	28 days	95.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
FI	17 days	92	92	88	91	94	93	91	96	78	97	96	82
SE	25 days	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
UK	14 days	>82	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
HR	6 to 8 days	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
TR	3 days	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
NO	10 days	93	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CH	20 days	~100	~100	~100	~100	~100	~100	~100	~100	~100	~100	~100	~100

(1) Provisional data.

Figure 9.1a: Response rates at the time of national publication (1)
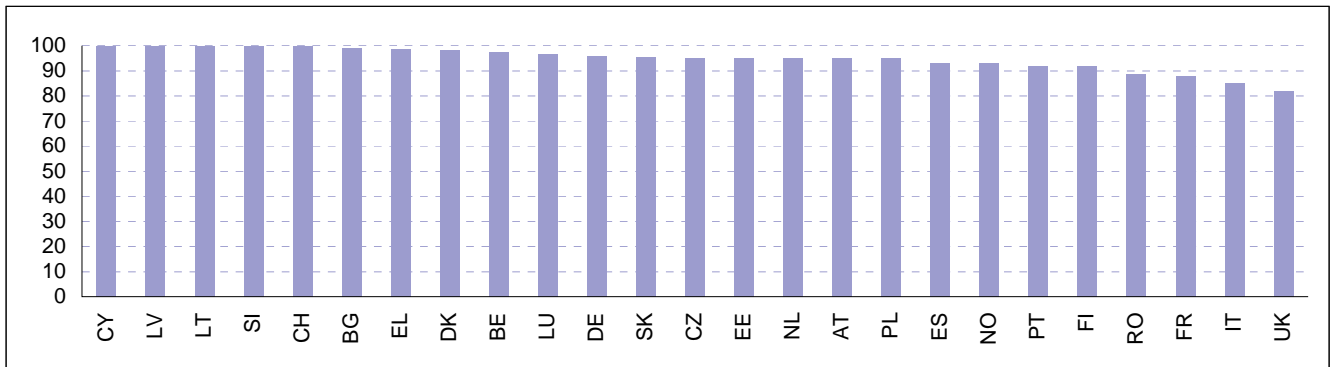
(1) Ireland, Hungary, Sweden, Croatia and Turkey, not available.

9.2 Development of response rates over the course of a data collection exercise

An analysis of response rates over the course of one monthly round of data collection can give an idea of when the response rate climbs steeply, and when it starts to tail off – see Table 9.2. The detailed information provided by Denmark shows clearly how response rates climb rapidly in the first few days of data collection in that country.

Note that all dates are given relative to the end of the reference month, and therefore some countries (DK and LT for example) that start data collection before the end of the reference month have reported response rates for dates before the end of the reference month and these are indicated for a date with a negative number of working or calendar dates, such that "0 days" for all countries is the end of the month regardless of the accounting convention used.

Table 9.2: Response rates over time

Country (reference period)	Stage of processing from end of reference month: negative dates indicate that a fixed reference date is used for prices, and that this date is before the end of the month	Response rate (%)
BG (1)	After 10 days	85.4
	After 28 days	99.9
DK (2) (Feb 2007)	After -9 working days	0.1
	After -8 working day	25.3
	After -7 working days	48.5
	After -6 working days	60.8
	After -5 working days	72.8
	After -4 working days	78.3
	After -3 working days	81.3
	After -2 working days	83.9
	After -1 working days	87.5
	After 0 working days	89.6
	After 1 working days	91.2
	After 2 working days	93.2
	After 3 working days	94.8
	After 4 working days	96.1
	After 5 working days	96.7
	After 6 working days	98.3
EL (2) (Jan 2007)	After 0 days	65
	After 7 days	85
	After 10 days	97 to 100

Country (reference period)	Stage of processing from end of reference month: negative dates indicate that a fixed reference date is used for prices, and that this date is before the end of the month	Response rate (%)
FR (2)	After 1 month	88.8
	After 2 months	90.2
	After 3 months	90.3
	After 4 months (final data)	90.3
LT (2) (Nov 2006)	After -6 calendar days	80
	After 0 calendar days	100
LU (3)	After 15 days	45-50
	After 30 days	75-80
	After 45 days	~100
HU	After 8 days	25
	After 15 days	70
	After 22 days	95
AT	After 50 days	95
	After 90 days	99
PT	After 20 days	92
	March of year N+1 (final data)	96
RO (2)	Day 1 of data collection	12.7
	Day 2	25.3
	Day 3	48.0
	Day 4	77.4
	Final (after 35 days)	88.7
UK (1) (Oct 2006)	After 3 days	88
	After 48 days	96

(1) Weighted.
(2) Unweighted.
(3) Estimated.

9.3 Response rates over the course of a year

Table 9.3 and Figure 9.3a show how response rates (at the time of first publication) vary between the different calendar months - note the cut axis in Figure 9.3a.

In general response rates do not show a strong seasonal pattern within a given year. Figure 9.3a shows lower response rates in July and August which may reflect data suppliers not providing data in time due to reduced production, or due to holidays either in the reporting unit or the statistical offices.

Table 9.3: Response rates by reference month

	BG (1)	CZ (2)	DK (2)	DE (1)	EL	ES	FR (2)	IT	LT	LU (3)	HU
Jan	99.8	94.1	97.7	94.6	98.0	94	85.0	84	100	99	95
Feb	99.8	91.2	98.0	95.8	98.5	94	88.7	88	100	99	95
Mar	99.8	93.0	98.8	96.4	99.0	94	86.9	88	100	99	95
Apr	99.9	93.9	98.1		99.0	93	87.8	89	100	99	95
May	99.9	95.5	98.0		99.1	94	89.3	88	100	99	95
Jun	99.9	94.7	98.9		99.0	94	88.2	88	100	90-95	95
Jul	99.9	95.5	94.9		99.0	93	88.6	86	100	90-95	95
Aug	99.8	96.6	96.7		97.5	86	88.6	88	100	99	95
Sep	99.9	96.2	97.6		99.0	92	88.8	89	100	99	95
Oct	99.9	96.0	98.2	95.7	99.1	92	90.3	88	100	99	95
Nov	99.9	96.7	98.1	93.9	99.2	92	85.0	88	100	90-95	95
Dec	99.9	97.2	96.1	93.6	99.2	90	88.0	89	100	99	95

|	NL (1)	NL (2)	PL (2)	PT	RO (2)	SI (4)	SK (2)	SE	UK (1)	NO	CH
Jan	68	80	94.9	93.4	81.0	87.4	98	96.3	86.1	96	~100
Feb	73	89	95.1	91.8	84.5	88.3	99	96.8	87.5	96	~100
Mar	78	92	95.3	90.9	85.3	89.3	96	98.0	85.3	95	~100
Apr	71	86	96.3	91.9	86.2	86.1	94	97.8	84.1	95	~100
May	74	91	95.9	94.2	87.1	87.8	94	99.2	86.8	94	~100
Jun	78	94	96.3	93.2	87.5	89.1	97	91.0	88.6	95	~100
Jul	69	81	95.4	91.6	84.8	90.7	94	95.5	89.7	89	~100
Aug	71	87	95.9	90.8	83.2	86.0	93	97.9	84.3	95	~100
Sep	80	91	95.9	93.9	84.9	90.7	96	98.5	83.7	94	~100
Oct	72	89	96.4	93.3	88.7	90.8	95	98.3	87.6	95	~100
Nov	75	89	95.6	92.8	91.6	91.4	94	99.0	87.6	95	~100
Dec	80	94	95.5	92.6	87.3	88.9	96	98.7	84.4	93	~100

(1) Weighted.
(2) Unweighted.
(3) Estimated.
(4) Response rates for the 26th of the month.

*Figure 9.3a: Response rates by reference month*
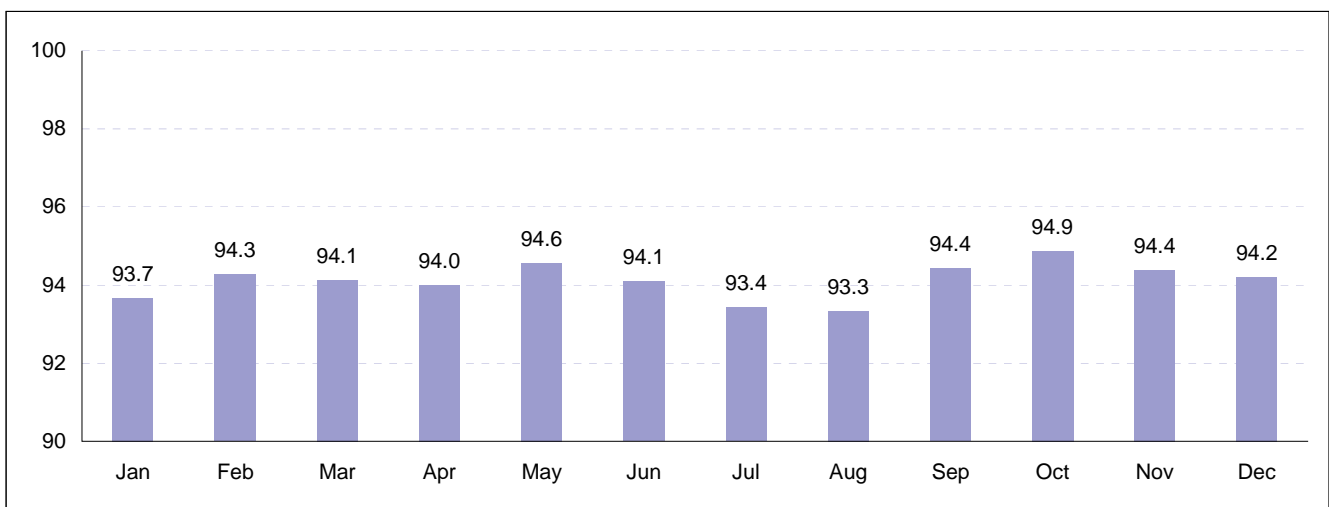
(1) Based on available information for BG, CZ, DK, EL, ES, FR, IT, LT, LU, HU, NL, PL, PT, RO, SI, SK, SE, UK, NO, CH.

10. Treatment of quality change

A wide variety of methods are used to treat quality change in the representative products, with nearly all countries reporting that they use at least two methods. Nevertheless, the overlap method is the most commonly used of all methods as can be seen from Figure 10a.

Figure 10a: Methods used often or sometimes for quality treatment: count of countries
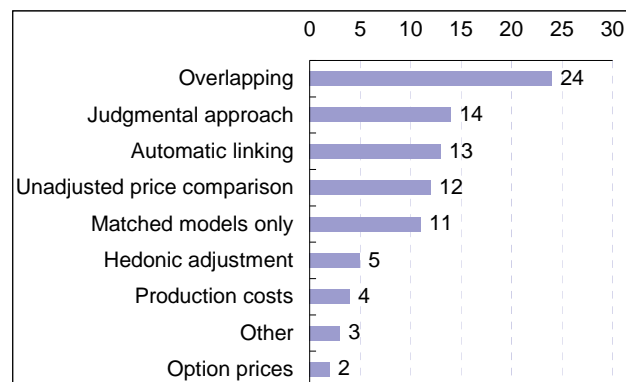
(1) 29 countries reported using at least one method; many countries reported more than one method.

Table 10: Methods for quality treatment (black = often; mid grey = sometimes; light grey = rarely)

Shading legend: ● = often (black); ◐ = sometimes (mid grey); ○ = rarely (light grey)

|	Over-lapping	Unadjusted price comparison	Automatic linking	Matched models only	Option prices	Production costs	Judgmental approach	Hedonic adjustment	Other	Comments on other
BE		Division 18	●	●						
BG	●		◐	◐			○			
CZ	●	◐					◐		●	Comparison of technical parameters
DK	◐		●	○						
DE	●	◐		●	○	○	◐	Specific products		
EE										
IE	◐			◐			◐		◐	Products with quality change are excluded
EL	●	●		◐			◐		◐	Bridge overlap
ES	◐			If no information available	◐	◐				Unless specified, methods used only if information is available
FR	○	○	○	○			●	Computers		
IT	◐									New price quotations only introduced when rebased
CY							◐			
LV										None
LT	●						●			
LU	◐	●	◐				◐			
HU	◐			◐						
NL	◐	◐	◐			○				
AT	○	●	●							
PL	◐						◐			
PT	●		◐							
RO	◐									
SI	●	◐	◐	Cars, computers		◐				
SK	●	◐		◐					○	Comparison of technical parameters
FI	◐		◐	◐		○				
SE	●	○	○	MCR for cellular phones		○	●	◐ Computers		
UK	◐				Motor vehicles	◐		● Computers		
HR		◐								
TR	◐						◐			
NO	◐			◐						
CH	●		◐	○				○		

Note: where countries did not indicate the importance of a method it has been show as "sometimes" (mid grey).

11. Treatment of missing values

11.1 Methods of treatment of missing values

As with quality change treatment, a wide variety of methods are used to treat missing data. Repeating prices from the previous period is the method most commonly used (often or sometimes) by countries, with average price developments for a strata/product also common. Four countries indicated using estimates made by respondents, and the number of countries using this method may be higher, as some countries may not consider this as missing data.

Figure 11.1a: Imputation methods, methods used often or sometimes (1)
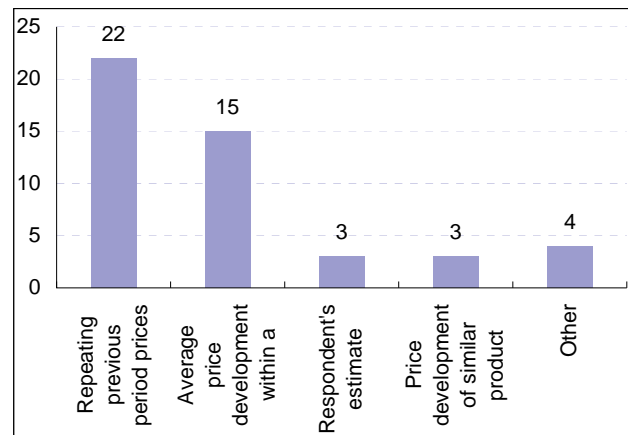
Method	Value
Repeating previous period prices	22
Average price development within a	15
Respondent's estimate	3
Price development of similar product	3
Other	4

(1) 29 countries reported using at least one method; many countries reported more than one method.

Table 11.1: Methods for treatment missing data (black = often; mid grey = sometimes; light grey = rarely)

	Repeating previous period prices	Average price development within a strata	Estimate provided by the respondent	Price development of a similar product	Other		Comments on other
BE							No-price-change and revision in subsequent month
BG							
CZ							
DK							
DE							
EE							
IE							
EL							
ES							
FR							Average price development of the respondent
IT	For seasonal products						
CY							
LV							
LT							
LU							
HU							
NL							
AT							
PL							No missing values because the selection of products is not fixed - a representative has to occur in sales in the given month
PT							
RO							
SI	Temporarily missing	Permanently missing					
SK							
FI	For seasonal products						
SE							Price movements in some products (for example metals, oil) imputed by market prices
UK							
HR							
TR							Average price development of the respondent
NO							
CH							

Note: where countries did not indicate the importance of a method it has been show as "sometimes" (mid grey).

11.2 Actions to reduce non-response

Table 11.2 shows the actions taken by countries to follow-up non-respondents and more generally to try to encourage faster or more responses. It should be noted that these are the answers given spontaneously by countries, and it may be that some of the actions are more widely used than indicated. Every country uses telephone contacts to chase non-respondents, with written (post, e-mail, fax or SMS) reminders also very widely used.

Table 11.2: Actions to reduce non-response rates, or designed to encourage/facilitate response

	Telephone contacts	Postal (or fax, e-mail or SMS) reminders	Field visits (personal interview)	Sanctions	Electronic questionnaires; web-based questionnaires
BE	■				
BG	■	■	■	■	
CZ	■	■	■		■ 1
DK	■	■			
DE	■	■			
EE	■	■			
IE	■	■			
EL	■	■	■		
ES	■	■			
FR	■	■			
IT	■	■			
CY	■			■	
LV	■	■			
LT	■				
LU	■	■			
HU	■				■
NL	■	■			
AT	■	■			
PL	■				
PT	■	■		■	
RO	■	■	■		
SI	■	■			
SK	■	■	■		
FI	■	■			■
SE	■				
UK	■	■		■	
HR	■	■			
TR	■	■			
NO	■	■		■	
CH	■	■			

Part E: Index compilation

12. Index compilation

12.1 Stages of index compilation

The methods of index compilation are similar between the countries, with the precise level at which the first price relatives are combined and the sources of weights for the aggregation varying. One notable difference is whether the second stage (normally when price relatives of individual observations are combined) is a weighted (Belgium for example) or an unweighted (Bulgaria for example) average.

There are however examples of different methods to compile the index, the most notable being in Ireland, Cyprus and Poland - in the last two the second stage of compilation involves producing an index at the level of each responding enterprise, something that is not done by most countries.

Table 12.1: Methods of index compilation

	First	Second	Third	Fourth	Other notes
BE	Price relatives for each observation: simple month-to-month relative calculated for each price observation.	Index at 4-digit: weighted average (weights are values of sold production in 2005) across all price observations within a NACE Class.	Higher level indices: Class level indices are combined using weights (domestic turnover) from the PRODCOM-survey (?80%) or the VAT-turnover (20%) from the year 2005. This weighted combination is done for all levels of NACE and MIGs including an industrial total.		Month-to-month index is chained in order to get an index to base year 2000.
BG	Price relatives for each observation: Elementary indexes are calculated as the price of each product specification for each observation unit in the current month divided by its average price in the base year (2000) = 100.	Index calculation at PRODCOM group level: A simple average of elementary indexes belonging to the same product group is calculated - an unweighted average is taken across all observation units that give price quotes for a particular product (at the PRODCOM 10 digit level).	PPI at NACE 3-digit level: The PRODCOM 10 digit heading indices are combined using weights (value of production sold on domestic market) from the PRODCOM survey from the base year (2000). This weighted combination is done up to the 3-digit level.	PPI at higher levels of aggregation (NACE Divisions, Subsections, Sections, MIGs and total industry): Base weighted Laspeyres indexes, weighted according to the sales on the domestic market in the base year (2000) from the SBS survey.	
CZ	Price relatives for each observation: For every observed product a simple index is calculated (December 2005 = 100) such as the price of observation period / price of base period. The product is determined by the 6-digit CZ-CPA code, 8-digit producer code, and 3-digit sequence code.	Index at 6-digit CPA: From these relatives the weighted average is calculated for all products within the frame of the observation unit and 6-digit CZ-CPA using weights determined by the price statistical survey of the base year 2005.	Index at 4-digit: From the 6-digit indices the weighted average for higher aggregation up to 4-digit level is calculated using weights determined by the statistical survey PRODCOM of the base year 2005.	Higher level indices: From these 4-digit indices the weighted average is calculated from 4-digit CZ-CPA through all intermediate levels to the level of total industry using weights determined by the SBS statistical survey of the base year 2005.	
DK	Elementary aggregates: The different goods are first grouped in elementary aggregates for which elementary aggregate indices are calculated as geometric indices.	Sub-indices: The elementary aggregate indices are weighted together into sub-indices.	Aggregates: The sub-indices and then aggregated into the domestic output price index, the non-domestic output price index and the total output price index.		The weights are based on the supply and use tables from national account for 2000.

Table 12.1 continued

	First	Second	Third	Fourth	Other notes
DE	Price relatives for each observation: For each price representative (product at the 9-digit level of the national version of CPA for each observation unit) a simple index (price relative) is compiled as a ratio of the current price and the average price in the base year.	Elementary product index: For each product at the 9-digit level of the national CPA an elementary index is compiled as an average of the relatives. For the majority of products an unweighted average is used (Carli-Index). For some products of CPA Group 23.2 and Divisions 40 and 41 weighted average indices are compiled, as weights market shares (in terms of turnover) of the observation units are used.	CPA 4-digit indices: Elementary indices compiled are combined to aggregate indices up to the CPA 4-digit level using fixed weights (base year 2000). These weights represent the share of each product at the 9-digit level in terms of production for sale. This information is derived from the PRODCOM-survey of the base year.	Higher level indices: Starting from the 4-digit level the weights represent the domestic turnover of activities. These weights are derived from the survey of local units in mining and manufacturing and from survey of enterprises in energy and water supply (SBS type data). Weighted indices are compiled for all levels of NACE Rev.1.1 and MIGs.	
EE	Price relatives for each observation: For each price quote a simple index (price relative) is compiled based on December (y-1)=100.	Product and activity level indices: These relatives are combined using weights based on the product sales data obtained from the annual PRODCOM survey.			
IE	Price relatives for each observation (article): Price relatives are determined in the case of each respondent for individual commodity groupings based on price changes from the previous month to the current month - if a respondent prices more than one commodity within a commodity group, then a weighted (if the information is available) or simple arithmetic average is taken of the price relatives.	Index for commodity group: The price relatives of different respondents are averaged within a particular commodity group using the share of sales recorded by each respondent within the commodity group.	Indices for activities: Price relatives for each commodity group are used to update the previous month's value weights for those commodity groups. The monthly index for an activity is compiled by summing the current monthly value weights over all commodity groups within the activity and dividing by the sum of the equivalent previous monthly value weights. The previous month's value weights for each activity are updated by the monthly activity price indices to obtain the current month's updated value for the activity. This value is divided by the corresponding base year value to get the base year index for the activity.	Higher level indices: Indices are compiled at higher levels by aggregating the relevant activity value weights and dividing by the sum of the corresponding base year value weights.	
EL	Price relatives for each observation : The relatives are calculated by comparing the current price quotations surveyed with the corresponding base year ones.	Index for each product: These relatives are combined for each product.	Indices for activities and higher levels: Successive aggregation procedures are performed from product level to the MIGs and total industry level.		Sales values are used as weights for the indices from the level of products up to the overall index. They are from the base year and come from structural business surveys and PRODCOM.

Table 12.1 continued

	First	Second	Third	Fourth	Other notes
ES	Product level indices: Indices for each product are calculated by the arithmetic mean of the ratios of the current price and the price in the base year.				At the product level, below the 4-digit level, the index is weighted according to the value of production. From the 4-digit level of the CNAE, the index is weighted according to the value of turnover on the internal market.
IT	Price relatives for each observation: for each variety of elementary product a relative is calculated based on the ratio between the surveyed price and the corresponding average price in the base year.	Index at the product level: an index for each product is calculated by using an unweighted arithmetic mean of the price relatives.	Activity and higher level indices: the aggregate indices (Groups, Divisions and a general index) are calculated using a weighted arithmetic mean of product indices.		For lower levels, the PRODCOM survey is used as the source of weights. For higher aggregation level (from 4-digit upwards) the weighting coefficients are determined on the basis of (billed) domestic sales of own-produced manufactured products according to the main annual SBS survey. The weights' calculation is based on a gross sector approach, which takes into account transactions between enterprises from the same activity.
CY	Price relative for each observation: For mining and manufacturing a price relative is calculated for each product for each enterprise.	Index for each enterprise: For each enterprise the price relatives for the various products are combined by weighting them by the sales of own produced goods. This is done separately for the local market, the export market and the total market.	Indices for NACE Classes: The resulting indices for each enterprise within a NACE Class are combined using weights calculated as the sum of the weights used in the previous stage, in other words the sales of own produced products included in the survey.	Higher level indices: These indices at the Class level are aggregated to higher NACE levels using the value of production as weights.	For electricity a simple index is compiled from the average unit cost calculated from the value and quantity consumption data. In water the prices are averages (only necessary for water distribution) for each of the three types of water enterprises (desalination, purification and distribution) and a simple index is compiled for these. These three indices are then aggregated by weighting them using production value.
LV	Price relatives for each observation: For each enterprise for each product a price relative is compiled for the reference month, setting the base period December of the previous year = 100.	Class level indices: The product indices are combined to the 4 digit level of the NACE Rev.1.1., using Laspeyres formula and the base period weights within each respective NACE level.	Higher level indices: The 4-digit level indices are combined using weights (domestic turnover, year t-2) to the higher levels of NACE and MIGs including an industrial total.		

Table 12.1 continued

	First	Second	Third	Fourth	Other notes
LT	Price relatives for each observation: the lowest level price indices are the ratios of the individual prices of individual representative products of the reference month to the prices for December of the previous year multiplied by 100.	Product index: a weighted average is made of the price relatives for all products in the same PGPK 10 digit heading: in other words a weighted average is taken across all observation units for a particular product.	Higher level indices: these PGPK 10 digit level indices are combined using weights up to the 6 digit, 4 digit, 3 digit, 2 digit, Subsection, Section, MIGs and total industry levels.		Weights for 10-digit product headings and higher as well as for observation units are derived from net value added from the 12 months summary on the "Monthly Report on Industrial Production of the Enterprise". For products within section E complementary sources are used. Weights for individual representative products are based on data from observation units. The weights refer to sales volume in the year t-2 (t is the reporting year) - these are price adjusted to align with the price reference period. Weights are updated every year.
LU	Product price indices: Price indices are calculated at the PRODCOM 8 digit +level (for each market).	Higher level indices: Weighted aggregates are calculated (from 4 digit level upwards and for different markets).			Weights correspond to turnover shares of the 2000 SBS survey.
HU	Price relatives for each observation: Price relatives are calculated from the base period and current period prices of the representative products.	Product price indices: The indices of commodity groups are determined as unweighted arithmetic mean of price relatives of the representatives.	Class level indices: The price indices of Classes are computed as weighted arithmetical averages of indices of commodity groups using domestic sales as weights.	Higher level indices: Higher level aggregates are also made by weighted arithmetical averages from the 4-digit level upwards.	Weights are derived from Annual Product Statistics. Annual product turnover from two years prior to the current year (t-2) are used for the weights - the weights are changed every year.
NL	Prices for each reporting unit: Within a reporting unit prices of different products (belonging to one activity) are combined according to the geometric average.	Commodity group indices: Average prices of reporting units are weighted (gross production). The commodity group price indices are chained. At the lowest level of calculation an internal-weight is used (the importance of a reporting unit within a PRODCOM group and statistical code derived from production statistics). External-weights (the importance of a PRODCOM group related to the other PRODCOM groups per statistical code derived from input/output tables) are used for aggregates of commodities.	Indices for activities: The aggregation to activities is made on the basis of matrices of input/output tables.		

Table 12.1 continued

	First	Second	Third	Fourth	Other notes
AT	Price relatives for each observation: For each price quote series [one single product for one observation unit] a price relative is compiled for the entire time series, setting the average for the base year (2005) = 100.	Index for each product: An unweighted average (geometric mean) is made of these price relatives for all products in the same PRODCOM 10 digit heading.	Index at the CPA 6-digit level: These PRODCOM 10 digit heading indices are combined using weights (value of sold production - domestic) from the PRODCOM survey. This weighted aggregation is done up to the CPA 6-digit level.	Index for activities and higher levels: The CPA 6-digit level indices are aggregated using weights (value of domestic sold production) from the input/output statistics (make matrix, t-3). This weighted aggregation is done for all levels of NACE and MIGs including an industrial total.	Weights are based on the value of sold production. The weights of the 10-digit ÖPRODCOM positions are a share of the sold production value of Sections C to E. To keep the current base year to 2000 the index based on primary price data (base year 2005) is chained to the former hybrid output price index (base year 2000).
PL	Price relatives for each observation: price relatives are compiled for each product by comparing the price for the current month with the previous month (=100) - these are the basis for price indices at other levels.	Index for each enterprise: price indices are compiled as a weighted average of price relatives for representatives - weights are sales values in the surveyed month.	Price indices by activity: a weighted average of price indices for enterprises belonging to a given NACE Group - weights are total revenues of the enterprises' sales in the surveyed month.	Price indices at higher levels: price indices are compiled as a weighted average of price indices for a lower level - weights are total sales values in the surveyed month.	
RO	Price relatives for each observation: these are calculated as the ratio for each variety of each observation unit between the price in the reference month and the average price of the base year (multiplied by 100).	Product level index for each observation unit: at the PRODROM 9 digit level an index is calculated for each observation unit as a simple unweighted average of the price relatives.	Class level indices: the product level indices are combined using weights (value of sold production split between domestic and non-domestic) up to the 4-digit level.	Higher level indices: 4-digit level indices are combined using SBS base year weights (domestic and non-domestic turnover) - this is done for all levels of NACE and MIGs including an industrial total.	
SI	Price relatives for each observation: Price relatives for each product (at the lowest level of detail = 9-digit NIP codes or 8-digit PRODCOM codes respectively) for each observation unit are compiled from prices for the current and the base month (December of the previous year).	Class level indices: Price relatives are aggregated to Class level indices using weights from the base year Annual Industrial Survey. Weights are derived from domestic turnover and recalculated on the price of the base month – December t-1.	Higher level indices: The Class level indices are combined using the same source of weights - this is done for all levels of the Standard Classification of Activities (derived from NACE Rev. 1.1) and MIGs including an industrial total.		
SK	Individual price indices are compiled.	6-digit level indices: 6-digit CPA level indices are a weighted arithmetical mean of individual price indices.			Weights are computed on the base of 2000 turnover data from structural business survey at the 4-digit CPA level. Then they are calculated for individual representatives based on a one-off "Survey for the purpose of selection of representatives for the observation of price developments of industrial producers".

Table 12.1 continued

	First	Second	Third	Fourth	Other notes
UK	Price relatives are compiled for each item.	6-digit level indices: 6-digit indices are the sum of price relatives weighted by item sales in the base year (2000) and a sample weight determined by the probability of selection into the PPI sample.	Higher level indices: To calculate indices at higher levels six digit indices are weighted by grossed-up domestic product sales from PRODCOM.		The domestic price indices are calculated according to a gross sector approach and, for the manufacturing total only, according to a net sector approach.
HR	Price relatives for each observation: Price relatives are calculated for each representative product by dividing prices of the current period by prices of the base period (December of the previous year).	Higher level indices: Indices for Groups and higher levels are calculated by a weighted arithmetic mean of the price relatives according to the modified Laspeyres formula.			
TR	Price relatives for each observation: Price relatives are compiled for each product from prices for the current and the base month (December of the previous year).	Product level index: A weighted average is made of the price relatives for all products in the same PRODCOM 8-digit (PRODTR9) heading: a weighted average is taken across all observation units that give price quotes for a particular product.	Class level index: PRODCOM 8-digit heading indices are combined using weights (value of domestic sold production) from the industrial production survey from the base year (y-2) to produce 4-digit level indices.	Higher level indices: The 4-digit level indices are combined using weights from national accounts, producing indices for all levels of NACE and an industrial total.	
CH	Price relatives for each observation: For each price quote series (one product for one observation unit) a price relative is compiled for the entire time series, setting the average for the base month May 2003 = 100.	Product level index: An unweighted average is made of these simple indices for all products in the same heading: in other words an unweighted average is taken across all observation units that give price quotes for a particular product.	Class and higher level indices: Indices are combined using gross production value weights or, if not available, turnover. This weighted combination is done for all levels of NACE and MIGs including an industrial total.		

Table 12.1 continued: countries providing information only on weights

	Notes
FR	Calculated according to a "gross sector approach": the weights take account of transactions within the same activity. Below NACE 4-digit level, the aggregation is made according to the information gathered by field officers. For the domestic market, only the arm's-length transactions are taken into account for weighting. The weights are proportional to the sales. This information is obtained from national accounts at the NACE 4-digit level and from the annual statistical survey.
PT	Weights are the sales of products on the domestic market obtained from the Portuguese PRODCOM survey.
FI	The weight structure is based on the values of deliveries of domestic production in 2000. The coefficients for domestic products come from Structural Business Statistics and National Accounts for 2000.
SE	The weights are derived from PRODCOM and external trade statistics (EXTRASTAT & INTRASTAT). In order to calculate the weights export values are subtracted from PRODCOM data at the 8-digit CN-level. Both PRODCOM and external trade statistics use CN for the classification of products. For products within Sections A, B and E complementary sources are used. The weights used to calculate the current aggregate index links are revised as from January each year in order to reflect a recent (year y-2) composition of output (at December y-1 prices).
NO	Weights are derived from the national accounts (NA) production account estimates and the PRODCOM survey. To get current year weights the most recent year's quarterly national account totals, which include a projection of the fourth quarter, are used to project the latest yearly figures from National accounts. These 6-digit CPA-NA levels are then distributed to HS commodities using the PRODCOM survey.

12.2 Type of index used

All countries compile a Laspeyres type index except for Poland which compiles a Paasche index.
Three countries chain the index monthly, eight chain it annually, two chain it with an unknown frequency, and the remainder either do not chain the index or only do so when weights are changed in the base year.

Table 12.2: Type of index

	Type of index	Chained
BE	Laspeyres	Monthly
BG	Laspeyres	No
CZ	Laspeyres	No
DK	Laspeyres	The elementary aggregated indices are chained every month Also, every fifth year when weights are changed
DE	Laspeyres	Every fifth year when weights are changed
EE	Laspeyres	Annual
IE	Laspeyres	No
EL	Laspeyres	No
ES	Laspeyres	No
FR	Laspeyres	No
IT	Laspeyres	No
CY	Laspeyres	No
LV	Laspeyres	Yes
LT	Laspeyres	Yes
LU	Laspeyres	No
HU	Laspeyres	Annual
NL	Laspeyres	No
AT	Laspeyres	Annual
PL	Paasche	Monthly
PT	Laspeyres	No
RO	Laspeyres	No
SI	Laspeyres	Annual
SK	Laspeyres	No
FI	Laspeyres	No
SE	Laspeyres type (Lowe)	Annual
UK	Laspeyres	6-digit indices annual 4-digit indices and above are rebased every five years
HR	Laspeyres	No
TR	Laspeyres	Annual
NO	Laspeyres	Annual
CH	Laspeyres	No

12.3 Base period in national publications

Approximately two thirds of countries publish their index nationally with an average of 2000 (base year) = 100.
Several of the Member States that joined the EU in 2004 also compile indices compared with the previous month, same month of the previous year, average of the previous year or December of the previous year = 100.

Table 12.3: Base period for national purposes

	Year (month)
BE	2000 average
BG	2000 average
CZ	2005 December
DK	2000 average
DE	2000 average
EE	1995; December of the previous year
IE	2000 average
EL	2000 average
ES	2000 average
FR	2000 average
IT	2000 average
CY	2000 average
LV	December of the previous year; previous period; same period of the previous year
LT	2000 average Note that price relatives are compiled based on December of the previous year
LU	2000 average
HU	Previous month; December of the previous year; same month/period of the previous year; 2000 average
NL	2000 average
AT	2005 average
PL	Compiled with the previous month = 100; 2000 average
PT	2000 average
RO	2000 average
SI	2000 average
SK	2000 December
FI	2000 average
SE	1990 average
UK	2000 average
HR	Previous year average
TR	2003 average
NO	2000 average
CH	2003 May

13. Revisions

Just over half the countries do not generally revise their indices after first publication. Of the 14 countries that do revise, half do so only once, and only two of the countries revise an unlimited number of times. The main reasons for revising data are because of more or corrected data from respondents.
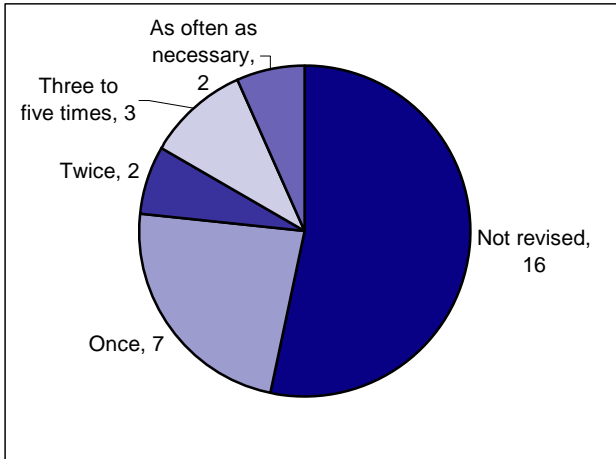
Figure 13a: Frequency of revisions

Table 13: Frequency and reasons for revisions

	Number of revisions and reasons for revision
BE	Once, supplementary revisions are possible; To eliminate preceding non response, in rare cases of observing processing errors
BG	Once per year; Inclusion of more precise data from respondents, correction of errors
CZ	No
DK	No
DE	Normally not; When serious observation or compilation errors are detected - no such cases in the last 10 years
EE	The data are generally considered final when first released, but may be revised twice; Inclusion of more data from respondents
IE	No
EL	No
ES	As often as necessary; Mainly the inclusion of new data
FR	Provisional for three months; Inclusion of more data and corrections of remaining errors
IT	Once The data are provisional when first released and are subject to revision 15 days later
CY	Normally not; Data correction from respondents
LV	Once; Data correction from respondents
LT	Once; Data correction from respondents
LU	As often as necessary; Correction of missing data and data correction from respondents
HU	Normally not; Data correction
NL	Yes, after 5 months the indices are final; Inclusion of more data from respondents
AT	Once; Inclusion of more data from respondents
PL	Normally not; When serious errors are detected
PT	Revisions are made to the two previous periods; data are final in March of the year following the reference period; Inclusion of more data from respondents
RO	Once; Inclusion of more or revised data from respondents
SI	No
SK	No
FI	No
SE	No
UK	Two most recent months are provisional Final after 5 months or when response rates reach 95% (whichever happens sooner); Inclusion of more data from respondents
HR	No
TR	No
NO	No
CH	No

Part F: Error identification and measurement

14. Editing

Nearly every country carries out micro data editing and
around half also edit at the macro level.

Table 14: Editing

	Level	Details
BE	None	
BG	Micro and macro	First micro level editing (regional offices), then macro level (and if necessary also micro level editing) is done (central office). Price changes are systematically checked if they fall outside of certain thresholds.
CZ	Micro	Done during data entry. For example checks compare price representatives over time, with similar products, in other price groups, price lists. Reporting units are contacted when data are not plausible or there is ambiguity.
DK	Micro	Data are edited on a micro level. Outliers are occasionally adjusted to reduce the impact of the observations.
DE	Micro and macro	Check for completeness: this process comprises the check for availability of all price observations and the check for completeness of each single questionnaire, and if necessary the observation units are contacted. Control of micro-data: changes in the reported price are checked against possible changes in the price determining characteristics and each kind of price change is classified in accordance with a standardized list of reasons of price changes - If necessary the observation units are contacted for additional information. Data checks on aggregated level (national CPA-9-digit level): price developments are compared, and in the case of unusual price changes the observation units are contacted for additional information or for correcting the price. Note at this stage some quality adjustment procedures (matched model approach) and extrapolation of missing price observations are also executed.
EE	Micro and macro	No details available.
IE	Micro and macro	Mainly querying any relatives or indices that have increased or decreased by more than 3%.
EL	Micro and macro	Manual checking of micro data is done before data entry. After data entry further editing is performed by the staff of the section responsible for the statistical survey. After tabulation comparisons are made with previous years and other surveys.
ES	Micro and macro	Aggregate data edited using time series analysis; micro data edited according to the influence on aggregates.
FR	Micro and macro	No details available.
IT	Micro	No details available.
CY	No information available.	
LV	Micro and macro	No details available.
LT	Micro	Price quotes are checked over time and any unusual figures are queried with observation units. Additionally any month/month changes in excess of +/-5% are highlighted - reasons for such movements must be shown on the enterprises' reports and are only included in the index calculation after checking with the respondents.
LU	Micro	The indices are edited at product and market level. There are also tests for outliers.
HU	Micro	Price relatives that exceed a pre-defined value (for example ±20%) are highlighted.
NL	Micro	Data are edited only after consultation with the reporting unit.
AT	Micro	Data are checked for plausibility.
PL	Micro and macro	Analysis highlights price indices for enterprises which differ from an average domestic price index for a NACE Group: these are checked to confirm a real price movement or detect errors. If the error causes a change in the index of 1 percentage point or more then the index is corrected starting from the representative level and then price index for the enterprise which gave wrong data is calculated. If significant errors of representatives' price levels are found after data processing closes for a particular month, reporting units make corrections in the next month by inserting correct data into the appropriate line of the form.
PT	No information available.	
RO	Micro	No details available.
SI	Micro	Data are edited during validation.
SK	Micro	Carried out during data entry - every abnormal price movement is checked by phone with the reporting unit.
FI	Micro	Data is checked and if necessary verified with the reporting units.
SE	Not specified	Errors are corrected.
UK	Micro and macro	Data are edited during validation after investigation.
HR	No information available.	
TR	No information available.	
NO	Micro and macro	Editing is done after following controls: optically read data errors, punching errors, duplications and observations with large price changes from the previous month. Controls are also carried out on HS products, CPA commodity groups, and finally on the figures that are published.
CH	Micro and macro	Quality (plausibility) controls are made on micro data and aggregated data. Price changes greater than +/-15% are checked, often through a telephone contact.

15. Non-sampling errors

Table 15 shows only those countries that provided information about non-sampling errors.

Table 15: non-sampling errors

	Bias due to definitions	Processing errors	Measurement errors	Other non-sampling errors
BE	Inadequate pricing methods are thought to be the main source of errors	Calculating errors have been noticed a few times since implementation of price index in January 2002	Collecting errors (unrealistic price changes, a few cases per month) are observed and checked with the reporting unit	No information available
BG	Sometimes enterprises do not specify the products in enough detail to ensure consistency each month.	These errors may be generated during such operations as coding, editing, data entry and data capture. Consistency checks are applied on line and if some values are deemed wrong they must be verified with the respondents. Some processing errors are detected and corrected after the special quality control program during data calculation (editing process).	For example when respondents misunderstand desegregation process or can not provide precisely the desired information: some measurement errors are detected and corrected after the special quality control program during data calculation (editing process).	The main reasons for coverage errors are: time lag between the moment the sample frame was created and it was actually used; failure to include some new significant enterprises in the frame in time/ include units which have moved / remove dead enterprises. The bias due to these possible errors has not been calculated. Errors detected during the fieldwork are always taken into account. Significant new enterprises (due to structural changes, or changes of the main activity of the enterprises) are included in the survey.
DE	Questionnaires and instructions are designed to avoid errors related to the inconsistent implementation of definitions.	At the stage of data processing standardised computer-based data checks are carried out. Incorrect datasets are highlighted automatically.	Quality adjustment procedures are conducted as part of data editing.	Other non-sampling errors can occur when additional information is necessary for the evaluation of the reported price changes is not available. To avoid such kind of errors regular contacts are kept with the price reporting units.
EL	There are none because of the use of experienced, trained interview staff, combined with data validation.			
FR	Sometimes there are errors concerning the product and customer mix.	Not aware	When the prices variations seem too great.	No information available.
IT	Coherence controls follow a standard quality protocol mainly at the time of editing (for instance, comparison between prices collected in the current and previous month, unit measure and/or unit of			
LU	If errors are detected, Statec tries to correct them with the help of the reporting units.	Not aware of any processing errors.	If errors are detected, Statec tries to correct them with the help of the reporting units.	If errors are detected, Statec tries to correct them with the help of the reporting units.
PL	No information available	All possible processing errors are eliminated as they occur.	No information available	No information available
RO	Not relevant	The processing errors that are observed mainly relate to data entry.	No information available	No information available
FI	Not aware	Production process and all processing rules have been standardised.	Not aware	It is sometimes difficult to get the respondent to understand what is required. The specification of the detailed and representative product is the challenge.
SE	Not aware	Not aware	There may be insufficient information for the treatment of quality change.	Usual problems of price statistics.
UK	Not aware	Not aware	Respondents are regularly contacted to ensure representativeness.	Not aware

16. Measurement of non-response errors/bias

Most countries indicated that there is no measurement of non-response errors or bias, and several stated that this is not relevant (due to full response). The United Kingdom noted that, while there is no measurement of non-response bias, revisions (which may include extra data from late respondents) are checked for bias.

Table 16: measurement of non-response error/bias

	Non-response errors/bias
BE	No measurement, considered to be small
BG	Non-response is not of great importance for the quality of PPIs as the rate is about 1.2% in terms of the number of units and only 0.1% in turnover terms
EL	Since the response rate approximates 99% non response bias is not measured because is considered unimportant
LU	Not relevant as response rate is close to 100%.
PT	No measurement due to the high response rate and traditional low revision at the moment of first release
UK	No measurement, but revisions are checked for bias

CZ	No information available
DK	No measurement
DE	No measurement
EE	No measurement
IE	No measurement
ES	No measurement
FR	No measurement
IT	No measurement
CY	No information available
LV	Not relevant
LT	Not relevant
HU	No information available
NL	Not relevant
AT	Not relevant
PL	No information available
RO	No information available
SI	No measurement
SK	No information available
FI	No measurement
SE	No measurement
HR	No information available
TR	No measurement
NO	No measurement
CH	No measurement

17. Calculation of sample errors

Nearly every country indicated that sample errors are not calculated. The exception was the United Kingdom which reported that standard errors are calculated on a monthly basis but they are not published - it is intended to publish them later in 2007. They are calculated using a SAS program. The method is based on the concept that the PPI is a weighted average of price growths and can be expressed as a function of monthly growth rates. The average behaviour and correlations between the growth rates are modelled. The estimates of standard errors are based on the estimated variance-covariance matrix of monthly growth rates over the period required. The coefficient of variation (of annual growth) for total industry is 0.7.

Table 17: calculation of sample errors

	Sample error measurement
EL	Not measured, but considered to be close to zero
UK	Standard errors are calculated on a monthly basis but they are not published - it is intended to publish them later in 2007. They are calculated using a SAS programme. The method is based on the concept that the PPI is a weighted average of price growths and can be expressed as a function of monthly growth rates. The average behaviour and correlations between the growth rates are modelled. The estimates of standard errors are based on the estimated variance-covariance matrix of monthly growth rates over the period required. The coefficient of variation (of annual growth) for total industry is 0.7.

BE	Not measured
BG	Not measured
CZ	Not measured
DK	Not measured
DE	Not measured
EE	Not measured
IE	Not measured
ES	Not measured
FR	Not measured
IT	Not measured
CY	Not measured
LV	Not measured
LT	Not measured
LU	Not measured
AT	Not measured
PT	Not measured
RO	Not measured
SI	Not measured
FI	Not measured
SE	Not measured
TR	Not measured
NO	Not measured
CH	Not measured
HU	No information available
NL	No information available
PL	No information available
SK	No information available
HR	No information available

18. Comparison with data from other sources

A number of countries indicated that the price indices are compared with other sources, mainly the CPI, or with market data.

Such comparisons are mainly for internal use with the statistical offices, and are often used as part of data validation.

Table 18: Comparisons with other sources

	Comparisons of the index with other data
BE	Not systematically; comparisons have been made with other countries for internal information
BG	The PPIs are checked with the annual average prices changes calculated from PRODCOM survey; Comparisons with the CPI are made where it is possible. The comparisons are made mainly for information within the NSI.
CZ	Comparison with consumer prices, price trend on the world market, in external trade, in agriculture and others.
DK	None
DE	PPI data are compared on a regular basis with other price indices (import and export price indices, Wholesale price indices and consumer price indices). Additionally indices are compared with other information available (articles in the press or the internet) and suggestions of data users are investigated.
EE	Compared with the CPI. This is done for internal information.
IE	Analyses of other sources consists of analysing the following on a monthly basis: — the PPI is compared with different PPIs from the US and UK statistical offices; — domestic Production Manager Indices and domestic newspaper articles are also viewed; — markets are also viewed mainly for energy and metal prices. Other data is viewed on an ad-hoc basis depending on fluctuations in Indices. The analysis is done for internal information.
EL	Disaggregated product indices are regularly checked against CPI sub-indices and production and turnover in industry sub-indices; this is done as part of data validation and for internal information.
ES	None
FR	None
IT	None
CY	None
LV	None
LT	As far as possible the PPI is carefully checked against the CPI; this is done for data validation.
LU	Comparison with volume and value information from the monthly industrial production survey; this is done as part of data validation.
HU	Comparisons are made on a regular basis. PPI figures are compared with the CPI or producer price index of agricultural products. Comparisons are also made with the deflator index used for the calculation of industrial production index (the deflator index is generally based on the PPI but in some industrial branches the data sources are different and the weighting of the deflator index varies monthly). The export PPI index is usually compared with the XMPI indices. These comparisons are done mainly for macro data validation or so-called 'a-posteriori' data control.
NL	Price statistics are integrated in the system of National Accounts.
AT	Unit values indices are used for ad hoc comparisons; this is for data validation.
PL	Regular comparisons and analysis are made of price indices for activities that are technologically related to each other and comparisons with the CPI are carried out; this is done as part of data validation.
PT	Systematic comparisons with international markets' prices for copper, aluminium, petroleum extraction and quarrying; ad hoc comparisons with consumer prices; this is done as part of data validation and for general comprehension.
RO	The producer price evolution is compared monthly with the CPI evolution mainly for food products; price quotes are compared with unit values obtained from the PRODROM survey; the purpose of these comparisons is data validation.
SI	Ad hoc comparison of the PPI sub-index for the "Consumer goods industries" MIG with the CPI sub-index "Goods"; this is mainly done as a part of data validation, but sometimes also to provide additional information to users.
SK	Data are compared with list prices.
FI	On an ad hoc basis, for example the metal prices are compared to London Metal Exchange prices and pulp prices are compared to world market prices (FOEX Index for pulp); this is done as part of data validation.
SE	Systematic comparisons are made with the London Metal Exchange prices and with the Brent spot price; this is done for data validation.
UK	No regular comparisons are made, but comparisons with the CPI have been made in the past for internal information.
HR	No information available
TR	An ad hoc comparison is made of the PPI with the CPI; this is done for internal information.
NO	No regular comparisons are made, but comparisons with the CPI and the External Trade Statistics (unit values) are done on an irregular basis.
CH	None

19. Dissemination of information on errors

Very few countries disseminate any information on errors. Countries that did report dissemination of errors (or information about types of errors) are included in Table 19.

Table 19: Dissemination of information on errors

	Dissemination of information on errors
BE	The public is informed of unforeseen revisions through an explanatory note.
DE	The methodological manual on German PPI issued in 2006 contains a special chapter describing possible errors on all stages of index compilation and the ways to minimise them.
SI	Information on errors is disseminated. In cases of error, the corrected data are published with an explanation of the error.
FI	In user manual of Finnish PPI.
UK	Information on revisions are disseminated via the First Release with notes explaining any special circumstances.

Annex

1. Definitions

Producer price index

The following rules apply for the definition of prices:

- the appropriate price is the basic price that excludes VAT invoiced by the unit vis-à-vis its customer and similar deductible taxes directly linked to turnover as well as all duties and taxes on the goods and services invoiced by the unit whereas subsidies on products received by the producer, if there are any, should be added;

- if transport costs are included, this should be part of the product/service specification;

- in order to show the true development of price movements, it should be an actual transaction price, and not a list price;

- the output price index should take into account quality changes in products/services;

- the price collected in period t should refer to orders booked during period t (moment of order), not the moment when the commodities leave the factory gates;

- [for output prices of the non-domestic market, the price should be calculated at national frontiers, FOB (free on board)].

It is essential that all price-determining characteristics of the products/services be taken into account, including quantity of units sold, transport provided, rebates, service conditions, guarantee conditions and destination. The specification must be such that in subsequent reference periods, the observation unit is able uniquely to identify the product/service and to provide the appropriate price per unit.

A price index should in principle reflect the average price level during the reference period. In practice, the information actually collected may refer to a particular day in the middle of the reference period that should be determined as a representative figure for the reference period.

The indices of domestic and non-domestic prices require separate output price indices to be compiled according to the destination of the product/service. The residency of the third party

that has ordered or purchased the product/service determines the destination. The domestic market is defined as third parties resident in the same national territory as the observation unit.

Enterprise

The enterprise is the smallest combination of legal units that is an organisational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources. An enterprise carries out one or more activities at one or more locations. An enterprise may be a sole legal unit.

The enterprise thus defined is an economic entity that can therefore, under certain circumstances, correspond to a grouping of several legal units. Some legal units, in fact, perform activities exclusively for other legal units and their existence can only be explained by administrative factors (e.g. tax reasons), without them being of any economic significance.

A large proportion of the legal units with no persons employed also belong to this category. In many cases, the activities of these legal units should be seen as ancillary activities of the parent legal unit they serve, to which they belong and to which they must be attached to form an enterprise used for economic analysis.

Local unit

The local unit is an enterprise or part thereof (e.g. a workshop, factory, warehouse, office, mine or depot) situated in a geographically identified place. At or from this place economic activity is carried out for which - save for certain exceptions - one or more persons work (even if only part-time) for one and the same enterprise.

It should be noted that, unlike the enterprise, there must be some employment within a local unit for it to exist. The local unit is a unit and not just a geographical breakdown of an enterprise. As such it is possible for more than one local unit belonging to the same enterprise to exist in the same region. This has important consequences for the collection of regional data.

KAU

The kind-of-activity unit (KAU) groups all the parts of an enterprise contributing to the performance of an activity at class level (four digits) of NACE and corresponds to one or more operational sub- divisions of the enterprise. The enterprise's information system must be capable of indicating or calculating for each KAU at least the value of production, intermediate consumption, manpower costs, the operating surplus and employment and gross fixed capital formation.

The KAU was devised as an observation unit in order to improve the homogeneity of the results of statistical surveys by activity and hence the international comparability of these results, since at the level of the enterprise different types of horizontal and vertical integration can be observed at both national and international level. An entity that only carries out ancillary activities for the enterprise to which it belongs cannot be considered as a separate KAU. In fact, the KAU corresponds to the operational definition given in paragraph 96 of the introduction to ISIC Rev.3.

The KAUs falling within a particular heading in the NACE classification system can produce products outside the homogeneous group, on account of secondary activities connected with them which cannot be separately identified from available accounting documents. Conversely, the KAUs classified under a particular heading in the classification system on the basis of a principal activity do not produce the entire output of homogeneous groups of specific products because the same products can be produced in secondary activities of KAUs falling under some other classification heading.

The internal accounts of enterprises (e.g. profit or cost centres) have often been developed according to criteria that are close: the activity concept. They enable the supply of data at KAU level, so that these can be observed.

All the costs of ancillary activities of an enterprise must be allocated to the principal and secondary activities and thus to the KAUs observed within the enterprise.

2. Classifications

NACE

NACE Rev. 1 was developed as a derivation of ISIC Rev.3, with sufficient detail added to reflect the more important activities of the Member States that were inadequately represented in ISIC. Both NACE Rev. 1 and ISIC Rev.3 have been updated, and replaced by NACE Rev. 1.1 and ISIC Rev.3.1 respectively.

A change of all major international classifications of activities and products is planned for 2008. These revisions are motivated by the need of adapting the classifications to the changes in the world economy, mainly due to the developments in information and communication technology (ICT). A prime use of ISIC is for internationally comparable reporting of economic statistics by activity or industry in many statistical domains: for this reason, the new ISIC also reflects the outcome of a convergence exercise between NACE and NAICS. The revised ISIC was adopted by the UN Statistical Commission in 2006. NACE is strictly dependent on ISIC, and was modified accordingly. Eurostat, together with other countries, cooperated actively with the UN in the whole revision process. NACE and CPA are adopted in EU Member States through Council and Parliament Regulations; therefore, changes to these classifications required the adoption of new Regulations which in the case of NACE was done in December 2006. The implementation date in the EU statistical framework is also laid down in the Regulation establishing NACE Rev. 2 and for STS indicators the first reference year for NACE Rev. 2 will be 2009, with a back series also being provided.

CPA

Product classifications are designed to categorise products (goods and services) that have common characteristics. They provide the basis for preparing statistics of the price, production, distribution, consumption, external trade and transport of such products.

The world-wide activity classification has its counterpart product classification in the Central Product Classification (CPC). For transportable goods, the building blocks of CPC are the elementary categories of the "Harmonised Commodity Description and Coding System"

(HS). The European version of the CPC is the Classification of Products by Activity (CPA).

CPA is a product classification whose elements are related to activities as defined by NACE. Each product - whether it is a transportable or a non-transportable good or a service - is assigned to one and only one NACE activity. The linkage to activities as defined by NACE gives CPA a structure parallel to that of NACE at all levels distinguished by NACE.

However, the detailed linkage between products and activities could only be established to a certain degree. It should be noted that there are cases where products could be assigned to activities only at a higher level than the Class level (for example textile yarn and fabrics) and where the classification is based on certain conventions (for example waste and scrap).

In order that CPA may serve as a "central" product classification, all other product classifications designed for special survey purposes have to be related to CPA in strictly defined ways. This is, for example, already the case for the Prodcom list, CN and CC. In general, product classifications that are more aggregated than CPA consist of precise aggregations of CPA subcategories and classifications that are more detailed than CPA consist of subdivisions that are wholly contained within CPA subcategories. The same rules apply for national versions of CPA.

At the time of writing the update of CPA is ongoing.

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