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Y. Franchet
Generaldirektor

It is Eurostat's responsibility to use the European statistical system to meet the requirements of the Commission and all parties involved in the development of the single market.

To ensure that the vast quantity of accessible data is made widely available, and to help each user make proper use of this information, Eurostat has set up two main categories of document: statistical documents and publications.

The statistical document is aimed at specialists and provides the most complete sets of data: reference data where the methodology is well-established, standardized, uniform and scientific. These data are presented in great detail. The statistical document is intended for experts who are capable of using their own means to seek out what they require. The information is provided on paper and/or on diskette, magnetic tape, CD-ROM. The white cover sheet bears a stylized motif which distinguishes the statistical document from other publications.

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To help the user focus his research, Eurostat has created 'themes', i.e. subject classifications. The statistical documents and publications are listed by series: e.g. yearbooks, short-term trends or methodology in order to facilitate access to the statistical data.

Y. Franchet
Director-General

Pour établir, évaluer ou apprécier les différentes politiques communautaires, la Commission européenne a besoin d'informations.

Eurostat a pour mission, à travers le système statistique européen, de répondre aux besoins de la Commission et de l'ensemble des personnes impliquées dans le développement du marché unique.

Pour mettre à la disposition de tous l'importante quantité de données accessibles et faire en sorte que chacun puisse s'orienter correctement dans cet ensemble, deux grandes catégories de documents ont été créées: les documents statistiques et les publications.

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Les publications proprement dites peuvent, elles, être réalisées pour un public bien déterminé, ciblé, par exemple l'enseignement ou les décideurs politiques ou administratifs. Des informations sélectionnées, triées et commentées en fonction de ce public lui sont apportées. Eurostat joue, dès lors, le rôle de conseiller.

Dans le cas d'un public plus large, moins défini, Eurostat procure des éléments nécessaires à une première analyse, les annuaires et les périodiques, dans lesquels figurent les renseignements adéquats pour approfondir l'étude. Ces publications sont présentées sur papier ou dans des banques de données de type vidéotex.

Pour aider l'utilisateur à s'orienter dans ses recherches, Eurostat a créé les thèmes, c'est-à-dire une classification par sujet. Les documents statistiques et les publications sont répertoriés par série — par exemple, annuaire, conjoncture, méthodologie — afin de faciliter l'accès aux informations statistiques.

Y. Franchet
Directeur général

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**METHODOLOGY
OF THE TURNOVER
AND NEW ORDERS INDICES**

FOREWORD

As the European Union treaty has come into force, the need for harmonised statistics in Eurostat is more and more pressing. A new Regulation on short term indicators is about to be adopted. The various parties to the revision have on several occasions expressed the need for an overview of the methods actually used by the Member States to produce the short term statistics transmitted to Eurostat.

This document partly meets these expectations by describing the methods of the turnover index and of the new orders index as applied by the fifteen Member States. It is devised as a supplement of the monthly publication "*Industrial Trends* - series B4, Eurostat" presenting the main indicators of industrial activity. The preceding issue was released in December 95 and dealt with the industrial production index and the industrial producer price index. The reports gathered here are extracted from the methodological information database "MONA LISA" developed under the responsibility of Mr. B. Feldmann who is a principal administrator in the "Industry statistics" unit of the "Enterprise statistics" directorate in Eurostat.

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Introduction

A new Regulation in preparation

On the basis of the Council Directive (EEC) No 72/211 of 30 May 1972, Eurostat gathers and publishes the data for a set of short term indicators. Among these, the turnover and new orders indices have proved to be of great interest for our users. Recently, the European Monetary Institute (EMI) has ranked the quantitative index of new orders as one of the "essential" (first priority) variables necessary for economic analysis of industrial sectors to be carried out by the future Central European Bank.

The production index provides information on the evolution of value added at factor cost, new orders are an indicator of the evolution of demand and turnover is an indicator of sales and thus of the meeting point where supply equals demand.

The 1972 Directive is under revision. As European integration progresses, the Commission feels an increasing need for comparable statistical information in order to have a better knowledge of the economy of the Union. The harmonisation criteria laid down in the 1972 Directive have become insufficient and obsolete as they refer to statistical tools recently modified by new Regulations (classification of economic activities, definitions of statistical units, business registers) and do not reflect methodological developments in the Member States.

A Regulation which is a binding legal text, is in preparation; it is expected to be adopted in the near future. One can then hope that, as the year 2000 draws near, data collection and calculation methods, as well as quality requirements of the National Statistical Institutes (NSIs) will come closer to increase significantly the quality of European statistics.

The reports gathered in this publication present the inventory of the national methodologies in 1995, at a time when the implementation of the new European classification of economic activities (NACE Rev.1) in some cases led to a review of the data collection systems. The implementation of a common classification of activities used for data collection and no longer only for the transmission of data to Eurostat represents a step forward in the direction of harmonisation. However, the reader will notice that concerning the coverage, the statistical unit or the timeliness, great discrepancies remain, which compromise the calculation of reliable European statistics. We feel that this inventory will allow us to evaluate, a posteriori, the efforts made by each Member State to achieve harmonisation.

The draft Regulation lays down the variables to be provided, the activities to be covered, frequencies and transmission delays to be fulfilled, it also lays down quality aims and representativeness requirements that the NSIs will have to respect. However, within the defined methodological framework, NSIs are free to use the collection and calculation methods best adapted to the specific characteristics of their statistical system.

In order to help the NSIs in this choice and in particular to aid those countries that will have to set up new surveys, B. Feldmann in charge of the preparation of the Regulation has written a **methodological handbook on short term indicators** which describes various methods and specifies those which are the most suitable ones to achieve the objectives defined by the Regulation [B. Feldmann: *Methodology of short term indicators: Rules and Recommendations*, Eurostat, Luxembourg, June 1996].

The following descriptions focus on the points of method that are the heart of harmonisation problems. For each point, Eurostat's rules are recalled and an overview status of the countries' practice is given.

1. BACKGROUND

1.1 Activity coverage

1.1.1 Classifications

In application of the Council Regulation (EEC) No 3037/90 as modified by the Commission Regulation (EEC) No 761/93, all countries should now use the NACE Rev.1 classification of activities, or a fully compatible national version of it, at all stages of the compilation of statistics. It is used to code units in the registers, for data collection, for data compilation and for the transmission of results to Eurostat.

This represents a considerable improvement in the harmonisation of European statistics as data no longer need to be converted from diverging national nomenclatures to the common NACE.

1.1.2 Industrial activities

The indicators under review in this publication refer to industrial activities. These correspond to NACE Rev.1 sections C, D and E: mining and quarrying, manufacturing industries and water, electricity and gas supply. However, not all countries cover all of the activities comprised in this range, especially for the new orders index (see paragraph 3.4). The coverage for each country is shown in the summary tables below.

Indicators covering the construction sector (section F) are treated separately together with specific indices such as building permits or building starts.

1.1.3 Level of detail

According to the draft Regulation, turnover and new orders indices will have to be supplied at the 2-digit level only. However, the supply of the 3- and 4-digit levels is encouraged by Eurostat. The level of detail provided by each country is mentioned in the overview tables together with the activity coverage.

1.2 The choice of the observation unit: enterprise approach or industry approach ?

The Council Regulation (EEC) No 696/93 of 15 March 1993 on statistical units defines the statistical units Member States have to use in their description of the production system. The units that are relevant in the frame of industrial short term indicators are

- the enterprise,
- the local unit,
- the kind-of-activity unit
- and the local kind-of-activity unit.

(The definitions of these units can be found in the text of the Regulation above mentioned and in the methodological handbook in "General Principles", chapter 6.)

Within this frame, one has then to distinguish between the "reporting unit", asked to supply the data and the "observation unit" to which data relate.

The reporting unit exists physically and can be identified by a name and an address. It can either be an enterprise or a local unit.

The observation unit can be any of the four units mentioned above. The comparability of indicators will then very much depend on the comparability of the observation units to which the variables relate.

Short term indicators account for the development of industrial activity. To calculate an index for a given activity (within the definition of the NACE Rev.1), the raw data collected from the reporting units have to be aggregated. According to the foreseen utilisation of the variable, the choice of the observation unit and the choice of the aggregation method are done according to two different approaches:

- **enterprise approach:** in this case, the activity is measured from the point of view of the decision process of the enterprise. The head of a business might have to arbitrate between several activities according to the overall strategy followed at the enterprise level. The collected variables are then indicators of the enterprise's situation and their measure includes secondary activities. The values collected correspond to the turnover of the whole enterprise and they are reported under its main activity. The secondary activities can differ very much from the main activity and belong to a separate NACE Rev.1 division. The resulting aggregate for a given activity thus contains part of the value of other not related activities.
- **industry approach:** in this case, activity is measured from the angle of production understood as "what is produced". The observation units are kind-of-activity units that group all the parts of an enterprise contributing to the performance of an activity at the 4-digit level of NACE Rev.1. The KAU is an operational unit devised to improve the homogeneity of the measurement of activity. The resulting aggregates are then more homogeneous than those obtained by the enterprise approach.

Orders indices follow the evolution of demand as addressed to a given industry. Turnover follows the response of a given industry to this demand. To a certain extent, these variables can then be regarded as leading indicators of the production in a given industry. Data must then be supplied in a form that gives the possibility to evaluate the fluctuations of the variables in terms of markets that relate to this specific industry. Because it relates to a more homogeneous definition of activity aggregates, the **industry approach** appears to be the most appropriate to collect these variables.

1.3 Data collection

Data collection by means of a survey for the quantitative indicators of turnover and new orders is rather simple in its principle and does not call for a great variety of methods. The values of turnover and of new orders are usually available as company accounting headings or from other systems of information of the reporting unit.

When both variables are collected, they are reported on the same questionnaire and with the same periodicity.

2. TURNOVER

2.1 Definition

Turnover corresponds to the value of what is sold during a reference period whether it is taken from stocks or from the production of the reference period. The variable is defined in the methodological handbook in the following way:

- Turnover comprises the totals of products and services invoiced by the observation unit during a reference period.
 - ⇒ Turnover excludes all taxes which fall on products and services when they leave the factory as well as the value added tax invoiced to the client by the producer.
 - ⇒ On the other hand, turnover includes all charges invoiced to the client such as transport and packaging costs.
 - ⇒ Price rebates and discounts and allowances on returned goods have to be deducted from the value of turnover, but not cash discounts. Price reductions, rebates and bonuses conceded later to clients, for example at the end of the year should not be taken into account.

All countries follow this definition of turnover based on the ex-works value of goods.

2.2 Index calculation

2.2.1 Type of index and weighting system

The compilation of the turnover index is rather simple. Most countries first calculate simple basic ratios of the value of turnover in the current year by the value of turnover in the base year. These basic indices correspond to the lowest NACE Rev.1 level they calculate. They then are aggregated to higher levels of the classification on the basis of fixed weights corresponding to the value of turnover in the base year.

2.2.2 Deflation of the turnover index

Three countries, Denmark, Netherlands and United Kingdom use the turnover index to derive their production index. The turnover index is thus a central piece of their system of short term indicators. Deflation methods are described in details in part III, paragraph 13 in the Methodological Handbook, in particular it is shown how a Laspeyres volume index is obtained by deflating the value index with a Paasche index of output prices, and vice versa.

Three other countries, Germany, Italy and Sweden, calculate a volume index of turnover for aggregates in addition to a simple value index. However, they also compile a production index based on a survey. They calculate Paasche volume indices as only Laspeyres price indices are available as deflators.

2.3 Sources

Turnover data can be obtained not only by means of a statistical survey but also by using the VAT registers. The use of such an administrative source has the double advantage of reducing the statistical burden on enterprises, as well as the costs induced by the organisation of a short term statistical survey. However, the resulting statistics are submitted to contingencies on which the statistician has no influence.

- the periodicity and delays are those of the tax administration and do not necessarily correspond to the monthly frequency advocated by the European Directive;
- the reporting units are fiscal units (VAT reporting enterprise) that do not break down the information according to the kind-of-activity unit. The resulting statistic is then inappropriate to the industry or market analysis recommended above.

France is still using this collection system based on a enterprise approach. Being aware of the drawbacks of the method, the Belgian INS recently changed its system based on VAT registers to a statistical survey.

3. ORDERS

3.1 Definition

3.1.1 Purpose of the indicator

Orders are observed with regard to future production activity but from the enterprise's point of view they correspond to the expected turnover of the observation unit. A unit can fulfil an order by producing the goods and services itself, by sub-contracting all or parts of the production or through resale.

The statistician is facing a trade-off between the practical constraints of data collection and the ideal definition of orders that would correspond to the purpose for which the variable is collected: a leading indicator of production.

As a consequence, orders fulfilled through resale are not included in the definition of orders as the observation unit is clearly not involved in the production of these goods or services.

On the contrary, the definition of orders includes sub-contracted goods and services as the observation unit can be partly involved in the production process.

3.1.2 Definition

The following definition is laid down in the methodological handbook:

Orders are defined as the value of all legally binding contracts linking a producer and a consumer and relating to future deliveries by the producer of goods and related industrial services.

Included in orders are:

- orders for goods and related industrial services to be manufactured in the different KAUs of an enterprise,
- orders for goods and related industrial services to be manufactured partially or totally by subcontractors.

Deducted from the value of orders are:

- all taxes directly linked to the products such as VAT,
- rebates and discounts when they are given at the moment of contract

Excluded from the value of orders is resale without further processing.

New orders correspond to the orders received by the observation unit during the reference period net of any cancellations¹.

Stocks of orders² correspond to all unfilled orders at the end of the reference period. Orders are removed from the stock of orders when they are invoiced.

3.1.3 The relationship between new orders and stocks of orders

Netherlands and United Kingdom only collect stocks of orders and derive the value of new orders from stocks of orders and turnover:

$$NO_t = T_t + (SO_t - SO_{t-1})$$

NO_t : New Orders in month t

T_t : Turnover in month t

SO_t : Stocks of orders in month t

Other countries such as Denmark or Italy who collect data for both orders variables and for turnover use this formula as a plausibility check.

3.1.4 Why should cancellations be recorded in the new orders?

During the seminar on new orders held in Luxembourg on the 30-31 May 1996, the issue of where to include cancellations was discussed. Eurostat's position is the following.

Cancellations are part of the information on the market conditions. They indicate that part of the demand is withdrawing. Ideally, they should be recorded as a separate series as it is done in Austria. If this is not the case, cancellations should be recorded with new orders in the month when they occurred. The "new order" variable accounts for the state of demand during the reference period and thus should also indicate signs of withdrawal.

Recording cancellations in the stocks of orders would result in a loss of information. When analysing the evolution of stocks of orders, a diminution of this variable can either be due to a fall in the demand (less new orders) or to concentration of production in time (higher number of orders fulfilled during the reference period). Hence, information on the withdrawal of demand and the timing of this withdrawal are lost.

Among the nine Member Countries collecting orders information, one collects cancellations in a separate series (Austria), five include them in the new orders series (Denmark, Luxembourg, Netherlands, Sweden and United Kingdom), one includes them in the order books (Italy) and two do not take them into account.

¹ This implies that if cancellations are very high, new orders for a given period can be negative.

² The 1972 Directive only envisaged the collection of new orders, therefore the methodological reports only describe this variable.

3.1.5 Summary of inclusions / exclusions in the definition of new orders

	Cancellations of orders	Resale	Industrial services	Rebates and discounts ³
B	NO	NO	YES	YES
DK	YES	NO	YES	YES
D	NO	NO	YES	
I	with stocks ⁴	YES	YES	YES
L	YES	NO	YES	NO
NL	YES	NO	YES	NO
A	as a separate series ⁵	NO	YES	
SW	YES			
UK	YES	YES	YES	

3.2 Type of index and weighting system

The compilation of a value index of orders follows the same principles as for the turnover index. However, the difficulties arise when defining the weights as orders are usually not collected exhaustively in the frame of a structural survey. Germany is the only country that have exhaustive new orders data available in the base year. Other countries for which these data are not available use the turnover of the base year as weights. A better solution is used by Italy: the value of orders in the base year is estimated on the basis of a sample survey and the ratio of orders to turnover in the sample is applied to the total turnover of an activity to obtain its weight.

The following countries calculate a volume index of new orders that is useful for comparison with the production index: Germany, Sweden and United Kingdom.

3.3 Sources

Apart from specific sectors of activity such as the construction sector (building permits) or sectors for which the State is the main client, data on new orders are not available from administrations. New orders data can only be obtained through statistical surveys. However, a new orders index can be calculated from two different sources:

- either from **quantitative information** corresponding to the value or quantity of orders received by a unit,
- or from the so-called **"qualitative information"** obtained by asking business heads to state on the trend (increasing / stable / decreasing) of their enterprise orders books level.

Some NSIs calculate both types of indices (Denmark, Luxembourg, Netherlands).

Other NSIs only calculate a quantitative index, knowing that qualitative business surveys are carried out by independent institutes (Belgium, Germany, Italy, United Kingdom).

Another group of countries only calculate a "qualitative" index which is less costly (Greece [only order books], France, Ireland, Portugal).

3.4 Activity coverage

Orders data are only collected for a number of activities that are considered to work to orders. The methodological handbook gives a list of activities to be covered at the NACE Rev.1 2-digit level according to the new Regulation. This list is the result of a compromise reached after several task force meetings held with Member States who all collect or plan to collect orders data. The mandatory activities are marked with an asterisk in the table below.

³ Rebates and discounts are deducted from the value of new orders only when they are given at the moment of contract.

⁴ Italy takes account of cancellations in the stocks of orders and not in new orders.

⁵ Austria collects data on cancellations that are available as a separate series.

Among the countries that collect orders data, all indices refer to activities belonging to the manufacturing industries (NACE Rev.1 section D) with the exception of Denmark that also compiles an index for section C on the basis of turnover data.

In the table below activities between brackets (...) are not available in Eurostat's database yet.

Available Activities for the New Orders index, by country:

NACE Rev.1 divisions		B	DK	D	I	L	NL	A	S	UK
Other mining and quarrying	14		22							
Food and beverages	15		333							
Tobacco	16		22							
Textiles*	17	(22)	22	4444	333	22	333	22	22	
Clothes*	18		22	4444	333	22	22	22	22	
Leather	19	(22)	22	333	333		333	(22)	(22)	
Wood	20	(22)	22	333	333		22	(22)	(22)	
Paper*	21	(22)	22	4444	333	22	333	(22)	(22)	
Printing and publishing	22		333	4444		22				
Coke and petroleum	23		22							
Chemicals*	24	(22)	22	4444	333	333	(333)	(22)		
Rubber and plastic products	25		333	4444		333		(22)		
Other non-metallic mineral	26		22	4444		22		(22)		
Basic metals*	27	(22)	22	4444	333	333	333	22	22	
Fabricated metal products*	28	(22)	22	4444	333	333	333	22	22	(22)
Machinery and equipment*	29	(22)	333	4444	333	333	333	(22)	(22)	(22)
Office machinery*	30	(22)	22	4444	333		333	(22)	(22)	(22)
Electrical machinery*	31	(22)	22	4444	333	333	333	(22)	(22)	(22)
Radio, TV, telecom,etc.*	32	(22)	22	333	333		333	(22)	(22)	(22)
Medical and precision equip.*	33	(22)	22	333	333	333	333	(22)	(22)	(22)
Car industry*	34	(22)	22	333	333	22	333	(22)	(22)	
Other transport equipment*	35	(22)	22	333	333		333	(22)	(22)	(22)
Furniture	36	(22)	22	333	333		333	(22)		

22 Data are available at the 2-digit level only. In some cases, one 3-digit level activity is also available.

333 Data are available at the 2- and 3-digit levels.

4444 Data are available at the 2-, 3- and 4-digit levels.

4. Summary tables

Turnover index

	Source	NACE Rev.1 Coverage (level of detail)	Breakdown by markets	Approach	Reporting unit / Observation unit	Type of index ⁶ (base year)	Frequency (timeliness)
B	Survey	C, D & E (3 digits)	no breakdown	Industry	enterprise / KAU	Absolute figures	M (75 days)
DK	Survey	C, D & 23.2 (2 digits)	domestic / exports	Industry	enterprise / KAU	L (1990)	M (35 - 45 days)
D	Survey	C, D & E (4 digits)	domestic / exports	Industry	local unit (Betrieb) / KAU	L & P vol. (1990)	M (40 days)
GR	no data						
E	no data						
F	Tax authorities	C, D & E (3 digits)	(domestic / intra-EC / extra-EC) ⁷	Enterprise	enterprise (legal unit)	L (1990)	Q (90 days)
IRL	Survey	C, D & E	no breakdown	Industry	Local KAU	L (1980) ⁸	M (100 days)
I	Survey	C & D (3 digits)	domestic / intra-EC / extra-EC	Industry	enterprise / KAU	P vol. (1990)	M (70 days)
L	Survey	C, D & E (3 digits)	domestic / intra-EC / extra-EC	Industry	enterprise / KAU	L chained (1990)	M (90 days)
NL	Survey	D & E (3 digits)	domestic / exports	Enterprise	enterprise / KAU	L (1990)	Q ⁹ (60 days)
A	no data						
P	Survey	C, D & E (2 digits)	domestic / intra-EC / extra-EC	Enterprise	enterprise	L (1993)	M (100 days)
FIN	no data						
S	Survey	C & D (4 digits)	domestic / exports	Industry	enterprise / KAU	P vol (1990)	M (60 days)
UK	Survey	C, D & E (4 digits)	domestic / exports	Industry	enterprise / KAU ¹⁰ (LE)	L (1990)	M (45 days)

⁶ L: Value index with fixed weights for the aggregates, P vol.: Paasche volume index.

⁷ This breakdown will only be available in the future

⁸ Data are published with base 1980=100 but the weights refer to 1982.

⁹ Data are compiled quarterly but monthly estimations are also available.

¹⁰ The observation unit is the KAU for large enterprises only

New orders index

	Breakdown by markets	Approach	Reporting unit / Observation unit	Cancellations of orders	Type of index ¹¹ (base year)	Weights ¹²	Frequency (timeliness)
B	domestic / exports	Industry	enterprise / KAU	Yes (in the future)	Absolute figures		M (75 days)
DK	domestic / exports	Industry	enterprise / KAU	Yes	Value index (1990)	T_T (Q census)	M (35 - 45 days)
D	domestic / exports	Industry	local unit (Betrieb) / KAU	No	Value index + P vol (1991)	NO_T (census in the base year)	M (40 days)
GR							
E							
F							
IRL							
I	domestic / intra-EC / extra-EC	Industry	enterprise / KAU	In the stocks of orders	L (1990)	$(NO_S/T_S) \cdot T_T$ (sample survey in the base year)	M (70 days)
L	domestic / intra-EC / extra-EC	Industry	enterprise / KAU	Yes	L (1990)	T_T (base year)	M (90 days)
NL	domestic / exports	Enterprise	enterprise / KAU	Yes	L chained (1990)	NO_t (base year)	Q^{13} (60 days)
A	domestic / intra-EC / extra-EC	Industry	enterprise / LKAU	As a separate series	Absolute figures		M (90 days)
P							
FIN							
S	domestic / exports	Industry	enterprise / KAU	Yes	Pvol (1990)		M (60 days)
UK	domestic / exports	Industry	enterprise / KAU ¹⁴ (LE)	Yes	L + vol. index (1990)	Gross value added	M (45 days)

¹¹ L: Value index with fixed weights for the aggregates, P vol.: Paasche volume index.

¹² T_T : Total turnover, NO_T : Total New Orders, T_S : Turnover in sample, NO_S : New Orders in sample,

¹³ Data are compiled quarterly but monthly estimations are also available.

¹⁴ The observation unit is the KAU for large enterprises only

Structure of the reference database

For each country and each indicator, the reports are structured according to the different steps of the data processing, in the following way:

◆ GENERAL INFORMATION

Summary

◆ INSTITUTION

Institution responsible

- Address of responsible institution
- Phone and Fax numbers
- Unit in charge
- Exceptions on institution

Person in charge

Number of people employed

Total cost of statistics

◆ REGISTERS, CLASSIFICATIONS AND UNITS

Register

Classification of activities

- Name of the classification of activities
- Correspondence with NACE

Geographical classification

Definition of units

◆ LEGISLATION

Legal base

Obligation to respond, penalties

Confidentiality (law)

◆ COVERAGE

Activities covered

- NACE covered
- Segments not covered

Total size class covered

Geographical area covered

Number of existing units

◆ NATIONAL CONCEPT OF VARIABLE

Theoretical concept of variable

Characteristics of variable

- Type of index
- Base year
- Method of weighting

◆ DATA COLLECTION

Sources

- Name of source

Collection technique

Basic (raw) input collected

Sampling

- Sampling method
- Criteria for stratification
- Threshold for data collection
- Number of queried units

Response rate

Periodicity of collection

Expected progress in data collection

◆ COMPILATION OF DATA

Delays for final index

Activities calculated

Links to other statistics

Links to other periodicities

Further treatment of data

- Correction of working days
- Seasonal adjustment

◆ DATA DISSEMINATION

Name of the publication

Published activities

Breakdowns and aggregations

Regional aspect

Treatment of confidential data

◆ LINK TO EUROSTAT

Mode of data transmission

Transmission deadlines

Intended harmonisation

Transition to NACE.Rev.1

TURNOVER INDEX

BELGIUM

General information

Summary The Belgian Statistical Office produces monthly data for turnover basically covering mining and manufacturing industries and energy (sections C, D & E of NACE Rev.1). Most data available are collected through the monthly PROCOM inquiry and from additional surveys meant to cover the activities not included in the scope of the Prodcum survey. These data are presented in absolute figures.

Institution

Address of responsible organisation Institut National des Statistiques / Nationaal Instituut voor de Statistiek
Rue de Louvain, 44
B - 1000 BRUXELLES

Phone & fax tel. (32) 2 548 65 08
fax. (32) 2 548 62 54

Unit in charge Institut National des Statistiques / Nationaal Instituut voor de Statistiek
Prodcum - statistiques conjoncturelles de l'industrie.

Exceptions concerning institution Most data are collected through the monthly PRODCOM survey mainly designed for industrial production. Data for the activities not covered by this survey are collected via specific inquiries carried out by the same INS department (cf. details under item 41100: "activities covered"). Data for iron and steel (NACE Rev.1 27.10) are provided by the main professional association in this branch in the frame of a ECSC directive. Data for the production of electricity and gaz (resp. NACE Rev.1 40.10 and 40.20) are provided by professional associations.

Person in charge Mr. Bergmans is in charge of the turnover and new orders data being namely responsible for the PRODCOM survey as well as for the other short term industrial surveys (including the construction sector) [NACE Rev.1 sections C to F].

Registers, classifications and units

Register The main register used is the register of enterprises that correspond to the integration of two files: the VAT register and the ONSS register (Social security system). In some cases, the same enterprise is registered in the ONSS file under several different accounting categories corresponding to different managing committees. Regional information is, in principle, available from the different regional ONSS offices. All these registers are used to build up the coverage of the PRODCOM survey as well as of the other short term industrial surveys. On this basis, the coverage of the reference population is increased and the identification of the units is improved in the frame of different projects revising the registers. Notably, the DB-RIS project aims at registering each unit under a unique and appropriate NACE code. As far as possible, secondary activities of enterprises are identified. Finally, the INS uses lists of members of professional associations to trace potential reporting units for these surveys.

Classification of activities The classification of activities used is the NACE Rev.1. Data are available in NACE Rev.1 from 1994 onwards.

Registers, classifications and units

Geographical classification	The criterion for geographical classification is the "commune". Each questionnaire is codified according to the 5-digits INS statistical code for the commune. In the future, the INS foresees to publish the data according to the following three great regions: <ul style="list-style-type: none"> - the Flemish region, - the Walloon region, - Brussels - capital city.
Definition of units	The observation unit used for the PRODCOM inquiry is the local kind-of-activity unit belonging: <ul style="list-style-type: none"> - either to an industrial enterprise employing 10 persons or more or which turnover exceed 100 million BFR, - or to a non-industrial enterprise with an industrial secondary activity employing 20 persons or more or which turnover exceed 100 million BFR. The units used for the specific surveys are enterprises employing 20 persons or more as laid down in the 1972 Directive on short term indicators. The reporting unit is generally the local unit or the enterprise. The definitions of the enterprise, the KAU and the local unit correspond to the definition laid down in the european Regulation on units.

Legislation

Legal base	In application of the PRODCOM Regulation, namely the Council Regulation (EEC) No 3924/91 of 19 December 1991 on the establishment of a Community survey on industrial production, several "Arrêtés Royaux" were taken to define the legal base for the PRODCOM survey in Belgium. The surveys concerning the activities not covered by PRODCOM are carried out under the legal frame of several Royal and Ministerial Acts.
Obligation to respond & penalties	The obligation to respond relies on Royal and Ministerial Acts and the Law of July 4, 1962 relating to governmental statistics.
Confidentiality (law)	The law ruling confidentiality is the same than the one ruling all statistics. (cf."legal base") that is the Law of July 4, 1962 modified on August 1st, 1985.

Coverage

Activities covered	The turnover data available from the INS cover NACE Rev.1 sections C, D & E. The turnover data collected through the PRODCOM survey cover NACE Rev.1 sections C & D except for classes 15.11 (production and preserving of meat) and 15.51 (operation of dairies and cheese making), divisions 23 (coke, refined petroleum & nuclear fuel) and 37 (recycling) that are collected through specific enquiries. Data for group 27.1 (iron and steel) are provided by the main professional association that collect it in the frame of ECSC directives. Data for section E are partly obtained from professional association (division 40: production and distribution of electricity, gaz and steam and water) and partly subject to a specific exhaustive survey (division 41: collection, purification and distribution of water).
Total size class covered	The threshold for the PRODCOM survey (NACE Rev.1 sections C&D) is Kind-of-activity units belonging to enterprises employing 10 persons or more or which turnover amounts to 100 millions BFR or more. If the KAU is indentified as industrial but belongs to a non industrial enterprise, the threshold is 20 persons or more or a turnover of 100 millions BFR. The threshold for the specific enquiries covering activities not included in the PRODCOM survey is 20 persons employed or more except for divisions 23, 37 & 41 where the survey is exhaustive.
Geographical area covered	Data are available for Belgium, but it is foreseen to breakdown the results according to the following regions : Flanders, Wallony, Brussels (see "geographical classification", item 23000).

Coverage

Number of existing units	<p>In 1995, the population is estimated to</p> <ul style="list-style-type: none"> - 7000 observation units for the PRODCOM survey; - 200 in classes 10.10, 15.11, 15.51, 23.30 and 37; - 6 for the production of coke and 5 for the production of petroleum oil; - 16 for iron and steel; - 6 for the production of gaz, 27 for electricity and 237 for water. <p>For each branches 90% of the production is covered.</p>
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National concept of variable

Theoretical concept of variable	<p>For the data obtained from the Prodcum survey, the definition of turnover corresponds to the value of deliveries for the Belgian and foreign markets, contract processing for enterprises located abroad, industrial services and treatments provided to third parts. The value is based on ex-works prices including transport and packaging costs.</p> <p>The value excludes VAT and separately charged freight costs and rebates and discounts have to be deducted.</p> <p>For the data obtained through the specific surveys, the turnover comprises only the totals invoiced to third parts for the delivery of products paid at ex-works prices or for services such as "contract processing", including packaging and transport costs when these operations are undertaken by the reporting unit.</p> <p>Are excluded from this definition, internal deliveries and trading activities.</p>
Type of index	Absolute figures are provided.

Data collection

Data Sources	<p>Most data are collected through the monthly PRODCOM survey mainly designed for production statistics (NACE Rev.1 sections C & D).</p> <p>Data for the activities not covered by this survey (NACE Rev.1 15.11, 15.51, 23, 27.1, 37 and section E) are collected via specific inquiries carried out by the same department</p> <p>Data for iron and steel are provided by the main professional association in this branch.</p> <p>Data for the energy sector is provided by professional associations.</p>
Collection techniques	<p>Data are collected through six different PRODCOM questionnaires:</p> <ul style="list-style-type: none"> Q1: basic questionnaire without production variables, Q2: full questionnaire for total production, Q3: for sold production, Q4: textile industry, Q5: cement industry, Q6: metal works.
Sampling method	Data collection is based on a general census of all the population above the thresholds defined under item 64400: "Threshold for data collection".
Thresholds for data collection	<p>The threshold for the PRODCOM survey (NACE Rev.1 sections C&D) is kind-of-activity units belonging to enterprises employing 10 persons or more or which turnover amounts to 100 millions BFR or more.</p> <p>If the KAU is indentified as industrial but belongs to a non industrial enterprise, the threshold is 20 persons or more or a turnover of 100 millions BFR.</p> <p>The threshold for the specific enquiries covering groups is 20 persons employed or more except for divisions 23, 37 & 41 where the survey is exhaustive.</p>
Surveyed units	<p>In 1995, the population is estimated to 7000 reporting units for the PRODCOM survey, 200 in the classes 15.11, 15.51 and 37, 200 in group 27.1, half a dozen in the division 23.</p> <p>For each branches 90% of the production is covered.</p>
Response rate	The response rate is close to 100%.

Data collection

Periodicity of collection Data are collected monthly.

Compilation of data

Delays for final index The turnover data are available 3 months after the end of the reference month.

Calculated activities Data are available at the 3-digits level of NACE Rev.1

Correction of working days No calendar adjustment is done.

Seasonal adjustment The seasonal adjustment method is based on non-centered moving average on the last 12 months.

Data dissemination

Name of publication Turnover data are published together with production and the employment data in the national monthly publication "Industriële Statistieken (NL) / Statistiques Industrielles (FR)" and in the weekly "Weekbericht (NL) / Communiqué Hebdomadaire (FR)".

Classification of activities used for dissemination The classification of activities used for dissemination is the NACE Rev.1.

Activities disseminated Data are presented at the 3-digits level of NACE Rev.1 in the publications.

Regional aspect It is foreseen to break down the data according to the main regions Flanders, Wallony and Brussels.

Treatment of confidential data Confidential data are treated by aggregation before being published.

Link to Eurostat

Mode of data transmission Turnover data are still sent on paper, but this situation will improve as the use of teletransmission (STADIUM) is one of the main priorities of the INS for the first half of 1996. Since the end of 1995 data are transmitted 3 months after the end of the reference month.

DENMARK

General information

Summary The Danish Statistical Office calculates a monthly index of turnover which basically covers the mining and manufacturing industries (NACE Rev.1 sections C and D). It is a Laspeyres index with a base year of 1990.

Institution

Address of responsible organisation Danmarks Statistik
Sejrøgade, 11
Postboks 2550
DK - 2100 KÖBENHAVN Ö

Phone & fax Tel. : (45) 39 17 35 55
Fax. : (45) 31 18 48 01

Unit in charge 8.kontor, Sektion for Konjunkturstatistik for industri

Exceptions concerning institution Energy data has not been collected since the implementation of NACE Rev.1. No other organisation is involved in the production of the Turnover indices.

Person in charge Mr Casper Larsen (Head of Section).

Number of people employed The work connected with each indicator is not carried out by a set number of staff. Altogether, twelve persons (including two graduates) work on industrial, social and price indices.

Total costs of the statistic The total cost of the turnover index is not known.

Registers, classifications and units

Register The name of the register is "Det Centrale Erhvervsrister" (The Central Business Register). It is based on Value Added Tax information. It is updated using monthly, quarterly and annual data from the VAT authority and surveys such as PRODCOM, the Annual Structural inquiry and short term indicators.

Classification of activities The classification of activities used by Danmarks Statistiks was the DSE 77 (Danmarks Statistiks Erhvervsgrupperingskode af 1977) based on ISIC/rev.2. Since January 94, the classification of activities used by Danmarks Statistiks is the DB93 (Dansk Branchekode 1993).

Correspondence with Nace/Rev.1, ISIC The Danish version of NACE Rev.1 is called DB93 and is fully compatible with NACE Rev.1.

Geographical classification No geographical classification is used in the calculation of short term indicators.

Definition of units The units used are the "kind-of-activity units" in the sense of EUROSTAT's definition.

Legislation

Legal base "Lov om Danmarks Statistik", last amended in 1992.

Obligation to respond & penalties Fines are set by the national authorities.

Confidentiality (law) There is no specific law ruling confidentiality, but there is a well established national practice.

Coverage

Activities covered	The population basically covers mining and manufacturing industries (NACE Rev.1 sections C and D).
Segments not covered	NACE Rev.1 Section E (Energy) is not covered by the population of reference.
Total size class covered	All units employing 20 persons or more are taken into account in the population.
Geographical area covered	The area covered by the survey is Denmark [Greenland not included].
Number of existing units	There are approximately 3000 enterprises in the population of reference.

National concept of variable

Theoretical concept of variable	The definition of turnover includes invoices, costs such as transports and packing itemized separately on invoices, subsidies and ex-works selling prices. Rebates and discounts are deducted. VAT and all other taxes which fall on products and services when they leave the factory are excluded as well.
Type of index	The turnover index is a simple value index with a fixed base year. It is calculated monthly.
Base year	The base year is at present 1990.
Method of weighting	The basic indices are weighted according to the enterprises' turnover. The weighting system is based on grossed-up results. There are grossing-up factors for about 80 branches and 4 size groups based on turnover figures taken out of the quarterly general census (PRODCOM).

Data collection

Name of source(s)	No other type of source than a statistical survey is used to work out the turnover index.
Collection techniques	Data are collected by questionnaire.
Basic input collected	The information collected are value data and are not derived from other sources.
Sampling method	Sample survey. The statistical units are chosen at random and the sampling method is similar to a multi-stage stratification.
Criteria for stratification	The sample is stratified by branch and size. Large enterprises employing more than 200 persons engaged in industrial activities (approx. 300 units) are surveyed exhaustively. Smaller undertakings, with 100-199, 50-99 and 20-49 persons employed are progressively less likely to be included in the sample. Percentages for each strata depend on the structure of the industrial branch.
Thresholds for data collection	The threshold for data collection is generally 20 persons employed or more. The selection of units for the sample is done on the basis of industrial category and size. Large enterprises with more than 200 employees are all included. A sample is drawn for units employing between 20 and 199 persons (cf. criteria for stratification above).
Surveyed units	1500 enterprises, 1600 kind-of-activity units and 2200 local units are surveyed, which represents a universe of 3000 enterprises.
Response rate	The response rate at the time of the first publication is 90 % and after three months the response rate is 100%.
Periodicity of collection	All short term information is monthly.
Expected progress in data collection	In the near future, no improvements are planned with regard to either speed or coverage. Various possible improvements would depend on revision of the 1972 Directive.

Compilation of data

Delays for final index	The index is considered definitive after the second revision, as up to two corrections are normally carried out. The first version of the index is published 5 to 6 weeks after the month of reference, the first and second revision takes place 1 and 2 months later.
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