Industrial Turnover Index in Turkey

Workshop on Industrial Statistics for countries in the ESCWA region
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AHMET PALAS

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Introduction

The STS-Regulations require short-term statistics on turnover (120) for Annexes A, C and D.

For industry, it requires information on domestic turnover (121) and non-domestic turnover (122).

Introduction

The objective of the turnover index is to show the development of the market for goods and services.

Turnover gives a global idea of the sales development including:

- the sales of goods;
- merchanted goods;
- services provided to other units.

It can be seen as an important indicator of activity in terms of the demand for industrial output.

THEORETICAL CONCEPT

- It is used in industry to assess current developments in sales;
- it can be seen as a complement to production information in short-term analysis;
- Turnover indicator can provide a common link for short-term comparisons of business cycle movements in various parts of the economy.
- it is a measure of the market growth and provides information useful for those activities supplying inputs and for those activities using a unit's output for further manufacturing processes.

THEORETICAL CONCEPT

In the case of compiling the IPI from turnover, there is an important methodological difference compared to the use of quantities or production values.

- turnover includes sales of merchanted goods (resale) which is not considered in the IPI;

- services provided to other units are included in turnover, but are not included in production;

THEORETICAL CONCEPT

- goods produced (or purchased) and stocked before sale are included in both production and turnover, but are considered at different moments in time;

- sales data will often include the output of secondary activities, while the IPI, if based on a list of products, is more homogeneous.

THEORETICAL CONCEPT

- turnover actually measures production sold on the market in the reference period and this can differ substantially from the target of measuring the production process as produced goods can first go into stock, or products are sold ex stock.
- If this effect is significant, it can lead to a misinterpretation of the IPI as regards economic cycles as, with this type of basic information, it is actually a pure turnover index. This applies also if an overall index consists partly of series based on turnover.
- Nevertheless, there is still a strong connection between these two indicators and in some cases deflated turnover is used as proxy for the IPI.

DEFINITION

The definition of turnover for STS follows the definition of SBS and in this respect follows largely the ESA 95.

Turnover includes:

- sales of manufactured products
- sales of products manufactured by subcontractors
- sales of goods purchased for resale in the same condition as received
- invoiced services provided
- sales of by-products
- invoiced charges for packaging and transport

DEFINITION

Turnover also includes:

- hours worked invoiced to third parties for labor only subcontracting
- invoiced mounting, installations and repairs
- invoiced instalments (stage payments)
- invoiced development of software and software licenses
- sales of supplied electric power, gas, heat, steam and water
- sales of waste and scrap materials
- subsidies on products

DEFINITION

Turnover excludes:

- VAT and other similar deductible taxes directly linked to turnover
- all duties and taxes on the goods or services invoiced by the unit
- reduction in prices, rebates and discounts;
- the value of returned packing
- price reductions, rebates and bonuses conceded later to clients, for example at the end of the year

DEFINITION

Turnover also excludes the items classified as "other operating income, financial income and extraordinary income "in company accounts:

- Commissions
- leases and rentals
- leases for own production units and machines if used by third parties
- leases of company-owned dwellings
- receipts for license-fees
- receipts from staff facilities (for example from a factory canteen)
- the supply of products and services within the observation unit
- sales of own land and fixed assets
- sales or leases of own properties
- sales of shares
- interest receipts and dividends
- other extraordinary income

DEFINITION: SUBCONTRACTING

When a unit has insufficient capacity to completely fill an order, it is very common to subcontract part or all of the work to another unit. Sales of products manufactured by subcontractors should also be included in turnover of the main contractor.

Equally, the subcontractor should consider as turnover the invoiced services provided.

Hence, the services and the sales of this production are included in turnover by units, the contractor and the subcontractor.

This means that turnover double counts the sales of some products, which is correct when measuring the market size but causes difficulties for analysis if this is used as a proxy for production.

UNITS

- Data from enterprises is much easier to obtain than from KAUs
- If future investment prospects are to be analyzed based on present income, enterprises are the correct observation units
- Comparisons between turnover indices in other activities (for example distribution and services) only make sense for data collected for enterprises, since short term statistics in these parts of the economy use that approach
- If the main purpose of the turnover index is to be compared with the IPI, employment and PPI (producer prices index) in the same activities, KAUs should be the observation unit.

COMPILATION OF THE INDEX

The STS-Regulations require this indicator to be transmitted to Eurostat either as an index or as absolute figures.

- The turnover index is a simple value index (price multiplied by quantity/volume), and is a direct index: it compares the current period with the fixed period in the base year
- the same compilation is used for the sub-indicators for the domestic and non-domestic markets
- In order to compile turnover indices at higher levels of NACE, the indices at the lowest level have to be aggregated

COMPILATION OF THE INDEX

the weights are based on the turnover shares of each activity in the two separate markets, domestic and nondomestic.

- It is recommended to use **SBS** data for the weights in order to provide the maximum of consistency between different indicators
- there are other sources that can be used, however attention must be paid to: the consistency of the basic data
- From SBS it should be possible to obtain turnover data for KAUs. If this is not available in practice enterprise data is used

COMPILATION OF THE INDEX

The calculation of value indices **I** for a given activity **(k)** are based on the turnover **(T)** of all observation units **(h)** of the reference month **(t)** compared with the monthly average of turnover of the base period **(0)**:

$$I_k(t) = \frac{\sum_{h \in k} Th(t)}{\sum_{h \in k} T_h(0)} \text{ X } 100$$

Introduction

TurkSTAT turnover survey is perfectly in line with COUNCIL REGULATION (EC) No 1165/98 of 19 May 1998 concerning short-term statistics.

Industrial Turnover Index is produced by Industry group of Short Term Business Statistics Department in TurkSTAT.

This group also produces Industrial Production Index, Industrial Labor Input Indices and labor cost indices.

History

Industrial Turnover Index was first produced in 2008 with Nace Rev 1.1 and the base year was 2005=100.

In September 2010 classification was changed from Nace Rev. 1.1. to Nace Rev.2.

In March 2013 base year was altered to 2010=1000.

Methodology

Sectoral coverage: NACE Rev.2 B+C sections

Weights: Weights are taken from Annual Business Statistics for the base years. Turnover values are used in four digit level. These figures are divided in to domestic and non-domestic parts by using STS sources.

Methodology

Data Collection: Data are collected directly from enterprises via web based application. Entered data controlled by regional offices then checked by headquarter.

There are some soft data edit rules while entering data for enterprises but hard and detail data edit rules for reginal offices. The aim of these rules is to diminish errors.

SHORT TERM BUSINESS STATISTICS
MONTHLY INDUSTRIAL PRODUCTION QUESTIONNAIRE

D201

Registration Number | **Year 2013** | **Month** | **Economical Activity Code**

ATTENTION :

Before answering this questionnaire please pay attention to the detailed explanatory notes of the survey.

1- This survey is being conducted in accordance with decree commanded as Law 5429, dated 18.11.2005 those who do not give the requested information correctly and in time, and those who disclose or give the collected personal data to public or private institutions are subjected to penalty according to the provisions of Law 53 and Law 54 which are indicated by this decree mentioned above. In case of not filling the questionnaire within the requested time or answering incomplete and inaccurately, administrative fine amount to 2.195 TRY is applied according to related law.

2- **DATA IS COLLECTED FOR ONLY STATISTICAL PURPOSES and "COMPLETELY CONFIDENTIAL". Data recorded in this survey can not be used for imposition or investigation aims.**

3- **UNIT PRICE of the PRODUCED PRODUCT WILL BE CALCULATED by UNIT PRICE of the SOLD PRODUCTION. VALUES of PRODUCTION and SALES WILL be EXCLUDED VAT and SPECIAL CONSUMER TAX.**

4- **PLEASE RETURN INFORMATION of the PREVIOUS MONTH until 25 th. DAY of Each MONTH.**

PART 1. INFORMATION of ENTERPRISE's TITLE and ADRESS

1.Name of the enterprise

2.Name of the tax administration

3.Tax identification number

4. Has the enterprise's name and address changed? 1. Yes (Note the changes to question 5) 2. No (Go to PART 2)

5. Adress

PART 2. INFORMATION OF TURNOVER FOR THE ENTERPRISE (Excluding Kurus)

1. TURNOVER

1.1. Total Turnover of the Reference Month TRY

Note: Total turnover, should be equal to the sum of non-domestic and domestic turnover

1.2. Non-Domestic Turnover of the Reference TRY

Note: Export listed sales should be included in non-domestic turnover

1.3. Domestic Turnover of the Reference Month TRY

2. TOTAL VALUE OF THE SERVICE, THE COMMERCIAL PRODUCT, SUBCONTRACTING ETC.
(Sum of the income except sales from production for the reference month) TRY

Note: This turnover should be shown in the non-domestic and / or domestic turnover

Please indicate the increase/decrease at the turnover due to previous month.

PART 3. INFORMATION OF PRODUCTION AND SALES FOR THE ENTERPRISE (Please write whole products produced in your workplace except subcontracting)

Code of the Product (PRODCOM)	Name of the Product	Unit Meas	Product Code (Finished Product / Mid Products)	Total Production: Quantity (Incl. Intended for further processing)	Total Production: Value in TRY (by price of the sales)	Sold Production (Except Bought and Sold, Incl. Sold Inventory): Quantity (Incl. Domestic and Nondomestic)	Sold Production: Value in TRY (Excl. VAT and SPECIAL CONSUMER TAX)	Quantity in Inventory of products produced (Incl. Previous month)

NOT : 1. With the value of the total sales of all products in Chapter 3 and Sum of the income except sales from production in Part 2 are expected to give the total turnover.

2. If you have started to produce a new product in the reference month, please specify.

3. Please indicate the increase/decrease at the production due to previous month.

Respondent's		**Interviewer 's**		**Turkstat's controller's**	
Name Surname		Name Surname		Name Surname	
Title		Title		Title	
e-mail		Date / / 201		Date / / 201	
Phone	Signature	Signature		Signature	
Fax					
Date / / 201					

20.02.2018

Methodology

Data Collection: With the same software, product information for industrial production index is also collected.

While collecting data total turnover, domestic turnover and non domestic turnover values of current month are asked. Figure is collected in Turkish Liras.

Methodology

Missing Values

For the missing **total turnover** values of industrial turnover data;

TurkSTAT uses data of the previous month of the enterprise and the change of current and previous months turnover values in 2 digit level. By using this change ratio to the data of previous month. New value is calculated.

Methodology

Missing Values

For non-domestic turnover value: After imputation is calculated for the total turnover, the ratio of non domestic to total domestic turnover previous month is calculated. By multiplication of this ratio to total turnover non domestic turnover is obtained.

Methodology

Missing Values

For domestic turnover value: After previous calculations; non domestic turnover value is subtracted from total turnover value.

Methodology

Number of enterprises: For the calculation of industrial production index 5253 enterprises are taken into account.

The frame for this enterprises is the enterprises which are in monthly industrial production survey.

Methodology

Selection of unit

Among the enterprises in monthly industrial production survey, for the base year which have more than %50 of their income comes from sales of produced products are taken in to the industrial turnover index.

The reason for this is; there are some enterprises in Industrial Production Survey which have very little production income but very high trade income and they could not split the income.

Methodology

Seasonal Adjustment:

Currently, TurkSTAT carries out the seasonal adjustment of industrial production indexes, using TRAMO-SEATS methodology based on ARIMA (Autoregressive Integrated Moving Average) model estimation developed by the Banco de Espana and also suggested by Eurostat.

Methodology

Index methodology:

Index is calculated by fixed base year Laspeyres Index.

Domestic, non-domestic and total indices are calculated separately.

Press Release

Press release is prepared in both Turkish and in English.

Data is disseminated via both dynamic and static tables also.

Index is disseminated in Total, Section, MIGs and Division.

Class level index is not disseminated.

TURKISH STATISTICAL INSTITUTE

Press Release

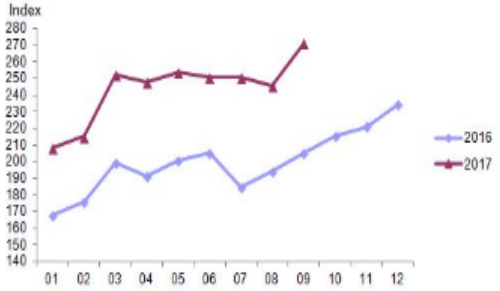
No: 24746
14 November 2017
Hrs: 10:00

Industrial Turnover Index, September 2017

Industrial turnover index increased by 32.2% compared with same month of previous year

When the sub sectors of the calendar adjusted industrial sector (based on 2010=100) were examined, mining and quarrying index increased by 24.7% and manufacturing index increased by 32.4% in September 2017, compared with same month of previous year.

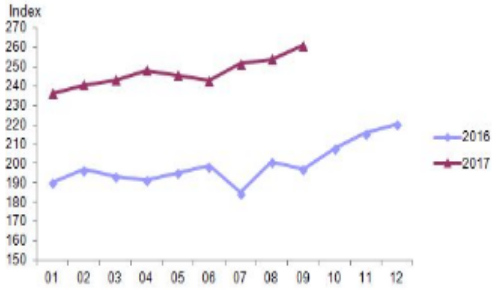
Calendar adjusted industrial turnover index, September 2017
[2010=100]



Industrial turnover index increased by 2.8% compared with previous month

When the sub sectors of the seasonal and calendar adjusted industrial sector (based on 2010=100) were examined, mining and quarrying index increased by 0.6% and manufacturing index increased by 2.9% in September 2017, compared with previous month.

Seasonal and calendar adjusted industrial turnover index, September 2017
[2010=100]



Industrial turnover index and the rate of changes, September 2017
[2010=100]

	Unadjusted	Calendar adjusted	Seasonal and calendar adjusted

Metadata Close

- Analytical Framework, Concepts, Definitions, and Classifications
- Scope of the Data
- Accounting Conventions
- Characteristics of Basic Data Sources
- Compilation Practices
- Revisions
- Other subjects

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Thank You For Your Attention.