



INFORMATION NOTE REGARDING THE CAPACITY UTILIZATION RATE OF MANUFACTURING INDUSTRY

I. Scope and Background

Data on the “**Capacity Utilization Rate of Manufacturing Industry**” which are being compiled and disseminated by the Central Bank of the Republic of Turkey (CBRT) as of January 2010, are calculated based on the responses of the local units operating in the manufacturing industry to the “Business Tendency Survey (BTS)” of the CBRT. The capacity utilization rates, calculated for the overall manufacturing industry and the sub-sectors, are the weighted averages of the actually realized capacity utilization rates of the respondent local units as per their physical capacities.

Data on the Capacity Utilization Rate of Manufacturing Industry were compiled and disseminated by the Turkish Statistical Institute (TurkStat) based on the results of the “Tendencies in Manufacturing Industry TMI)” survey between 1991 and 2009. The results of the survey carried out by the TurkStat for the local units operating in the manufacturing industry within the scope of the industrial production index were announced prior to the industrial production data of the related period. Thus, the data on capacity utilization rates were closely monitored as leading indicators.

The BTS is a tendency survey, which has been conducted since 1987 in order to generate indicators that reflect short-term tendencies in the manufacturing industry. The question on capacity utilization rate was added during the improvement studies carried out in 2007. Moreover, some amendments in scope and methodology of the BTS have been introduced within the context of the Official Statistics Program implementation. Thereby, the scope of the questions was fully harmonized with the European Union’s “Industry Survey”, and the results were calculated and announced in a way to represent Turkey as a whole. Moreover, the BTS has been carried out under the joint financing of the European Commission and the CBRT within the scope of “Joint Harmonized European Union Programme of Business and Consumer Surveys” since May 2007.

During the studies on Official Statistics Program, which was launched in 2007, it was noted that the said tendency surveys performed by the CBRT and the TurkStat had similar questions and addressed the same survey units. Considering this inconvenience, the monthly data on capacity utilization rates published by the TurkStat within the context of TMI survey were agreed to be produced and announced by the CBRT as of January 2010 based on the results of the BTS and a protocol was signed between these two institutions on **December 10, 2009**.

II. Method

The BTS is held monthly to exhibit the assessments of the senior managers on the recent past, current situation and their expectations regarding the future course of business environment. Responses regarding the capacity utilization rates within the BTS are included as percentages; then by calculating their weighted averages; these figures are aggregated for the overall manufacturing industry and the sub-sectors.



BTS is applied to those large establishments that are listed among TurkStat’s survey units of the Industrial Production Index with the base year 2005 and that have 50 and more employees and contribute significantly to the production of their respective sectors. The scope of the survey is updated annually, after the industrial production output pertaining to the previous year is announced. In January 2010, the survey included 1957 local units and enterprises generating approximately 80 percent of the production value at the three-digit sectors in 2008. The scope of the survey unit was updated in 2010, and starting from July 2010 the results of the survey have been calculated depending on the responses of the 2328 local units and enterprises.

Individual data obtained from the survey are highly confidential and used only to produce statistics with respect to the “privacy rule”, and are not utilized for any other purposes. The privacy rule applies to the publication of the aggregate results as well.

This information note provides brief comparative information on the scope of the survey, weighted aggregation method and application of the BTS in comparison to TurkStat’s survey. Furthermore, detailed information can be found in **Methodological Information** on BTS (<http://www.tcmb.gov.tr/ikt-yonelim/BTS-Methodology.pdf>).

III. Publication

Aggregate results are disseminated in the surveyed month with a monthly report on the CBRT web site, under the title “*Data/Surveys/Capacity Utilization Rate of Manufacturing Industry*”. In addition, they are available as time series under “*Data/Statistical Data-Electronic Data Delivery System (EDDS)*”.

IV. Differences in Methodology and Application Between TurkStat and CBRT Capacity Utilization Rate Series:

There are differences between capacity utilization rates calculated by the TurkStat and by the CBRT in terms of methodology and application. Therefore, the user should take these differences into account while evaluating the results. The differences between surveys are briefly mentioned below:

i. Scope of Survey Units:

The **TMI** survey was applied to approximately 1000 large-scale establishments specified in 1991. Data on capacity utilization rates are available since that date. The number of local units included in the **TMI** survey was increased gradually to 5618 as of December 2009. While approximately 1600 local units were included in the **BTS** in 2007, the scope of the survey units was updated respectively in 2008 and 2010, and starting from July 2010 the results of the survey have been calculated depending on the responses of the 2328 local units and enterprises.

ii. Representation:

The establishments in the survey frame of the **TMI** survey represent 72 percent of overall value added in the manufacturing industry according to NACE Rev. 1.1 classification.



Whereas, the local units in the **BTS** represent approximately 80 percent of the production value of Short-term Business Statistics Manufacturing Industry according to NACE Rev. 1.1 classification.

iii. Information Regarding the Question on the Capacity Utilization Rate:

While the **TMI** survey queries the average capacity utilization rate realized as a percentage of full capacity in the “*month mentioned*”, the **BTS** queries “*currently*” realized capacity utilization rate as a percentage of full capacity. The aim of this wording is to gather the manager’s assessments and perceptions pertaining to the current business environment and the manager is expected to make a capacity utilization rate assessment based on his/her own knowledge instead of making a calculation based on a formula by using the currently available data of the establishment. Therefore, an exact overlapping should not be expected between the capacity utilization rate indicated in the **BTS** and the capacity utilization rate of the establishment covering the whole month that the survey was conducted. However, as the **BTS** answers reflect the manager’s assessments and evaluations pertaining to the current business environment, it is believed that they could reflect the tendencies in capacity utilization rate realizations and become a leading indicator with respect to production developments.

iv. Weighting:

While weighting of the **TMI** survey data is performed by using the production values of the previous year, weighting of the **BTS** is performed in three stages. At the first stage, the answers received from the establishments are weighted with the average number of employees of the establishments in the previous year and totaled up to three-digit level classification of the business activities. At the second stage, the data totaled up in three-digit level classification are weighted with these sectors’ production values in the overall Turkish manufacturing sector and thus totaled up to two-digit level classification. At the final stage, the data totaled up in two-digit level classification are weighted with the value-added figures in the overall Turkish manufacturing sector and indicators pertaining to overall manufacturing industry are obtained. The difference in employment and production weights of local units in the sector may have different effects on the aggregated results of the **BTS** and **TMI** survey. This should be considered as a factor that could lead to discrepancies between the aggregated results of the two surveys with respect to level and tendency.

v. Survey and Publication Periods:

The **TMI** data were used to be compiled between the 15th of the surveyed month and the 7th of the following month and the survey results were used to be published within the first 10 working days of the month following the surveyed month. The **BTS** data are compiled between the 1st and 21st of the surveyed month and the survey results are published within the same month.