



Methodological Information On
“Business Tendency Survey and Real Sector
Confidence Index”

Department of Statistics

Real Sector Data Division

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I- Purpose

The Business Tendency Survey (BTS) intends to produce indicators that will show the short-term tendencies in the manufacturing industry, considering the assessments of the senior managers, about the recent past, current situation and their expectations regarding the future course of business conditions.

II- Frame

It comprises the survey units of the Turkish Statistical Institute's (TURKSTAT) monthly manufacturing industry production index (IPI) with the base year 2010. The survey units of the IPI comprise all of the local units of public sector enterprises as well as private sector enterprises with annual average number of 20 or more employees. Among these private sector enterprises the ones generating at least 90 percent of the total production value at four-digit level of NACE Rev.2 classification are selected. The frame of the survey is revised in accordance with the updates in IPI.

III- Scope

Scope of the Survey Units: The scope of the survey is formed by applying cut-off to the total production value of the local units with 50 or more employees at three-digit sectors in the frame of IPI and updated once in every two years. In this regard, the local units that will be included in the survey are determined according to the criteria that the responding local units generate at least 85 percent of the total production value at three-digit level sector classification in the previous year. The local units which are liquidated, which stop production or change their activities are excluded from the scope of the survey.

Scope of the Survey Form: There are two different survey forms including the monthly and quarterly surveys. The quarterly survey which consists of 28 questions is conducted in January, April, July and October and the monthly survey which is composed of 22 of these questions is conducted in the remaining months. The monthly survey comprises the assessments of the senior managers related to production, volume of sales orders, level of employment, stocks of finished goods, selling prices, unit cost, capacity utilization rate, producer price inflation rate, interest rates on loans and general course of business conditions. Out of these 22 questions, 5 are related to assessments of the current situation, 15 are related to the past and future trends and 2 are about ratios. The 6 additional questions included in the quarterly survey consist of assessments of the factors limiting production, the level of production capacity, period of production assured by the sales orders and domestic and foreign competitiveness. In the question of factors limiting production, it is asked to make a ranking in order of importance, while the remaining questions are concerned with the assessments on current situation and the last three months.

IV- Data Compilation Method

Responses to the survey are submitted between 1st and 15th of each month, either by post or via web based system of the Central Bank of the Republic of Turkey (CBRT) depending on the preference of the respondents. Survey forms are sent to the respondents who prefer to participate in the survey via post on the last working day of the month prior to the reference month. For the participants who prefer to respond via web, the survey form is made available on the first working day of the related month.

V- Classifications

The survey covers two-digit manufacturing sub-sectors having codes between 10 and 33 defined by NACE Rev.2 sector classification. At the three-digit level, manufacture of reproduction of recorded media (182), manufacture of basic pharmaceutical products (211), manufacture of irradiation, electro medical and electrotherapeutic equipment (266) and manufacture of musical instruments (322) are not covered.

VI- Breakdowns

Time series of the aggregated responses to the survey, based on the classification of products according to their end use are released at the web page of CBRT under the menu "Statistics/Statistical Data (EDDS)/Surveys" starting with the January 2007 data. The breakdown of the end products covers the capital goods, durable and non-durable consumer goods and intermediate goods.

VII- Definitions

Balance: The difference between the percentage of the "more optimistic" (increased, will increase, more optimistic, above normal, improved) responses and the percentage of "more pessimistic" (decreased, will decrease, more pessimistic, below normal, deteriorated) responses.

Real Sector Confidence Index (RSCI): RSCI stands as a summary indicator which is constructed by the joint evaluation of responses given to different questions of BTS for the purpose of tracking the general views of the real sector representatives about general economic outlook.

VIII- Calculations

Weighting: Weighting procedure is performed at three stages in aggregating the survey results. Production values of the local units compiled as part of the industrial production index of the previous year are utilized as weights. Responses to the survey questions are weighted by the production values in the previous year and aggregated at the three-digit level, two-digit level and total manufacturing industry level of NACE

Rev.2 classification at the first, second and third stages of the weighting procedure respectively. The weights are updated by using the data compiled as part of the industrial production index of the previous year once in a year.

Calculation of RSCI:

RSCI is calculated as a function of responses given to BTS questions regarding total volume of sales orders, stocks of finished goods, exports, production, employment and fixed capital investment expenditures. The indices for these questions are calculated by adding up 100 to the aggregated balance values. RSCI is then computed by taking the arithmetic average of these sub-indices. While choosing the appropriate questions, as well as economic significance, the statistical methods such as the performance for leading the IPI, low volatility and cross correlations is considered. No base-year adjustment for the index is made.

RSCI can be interpreted as follows:

According to the assessments of the real sector representatives participating in the survey;

RSCI = 100: A stable outlook to the economic activities.

RSCI > 100: An optimistic outlook to the economic activities.

RSCI < 100: A pessimistic outlook to the economic activities.

Calculation of Seasonally Adjusted RSCI (RSCI-SA):

Seasonal adjustment process of RSCI series is carried out by using TRAMO-SEATS method. The existence of seasonality in all the sub-indices is examined and the indices having seasonality are seasonally adjusted by utilizing this method. The indirect method is implemented for seasonal adjustment and the RSCI-SA is computed as the arithmetic average of seasonally adjusted sub-indices.

IX- Release

The survey results are released in the last week of the reference month. The data release calendar is available at the web page of CBRT under the menu "**Statistics/Data Release Calendar**", while the results of the survey are released under the menu "**Statistics/Tendency Surveys/Business Tendency Survey and Real Sector Confidence Index**". In addition, time series data can be reached at "**Statistics/Statistical Data (EDDS)/Surveys**".

X- Revision Policy

No adjustment is made for non-response and the results are not revised for the responses received after the survey period. In the seasonally adjusted results of RSCI, model structure, model parameters and outlier observations are reviewed and updated every year but backward revision of the series is not applied.