



## Methodological Information on Real Sector Confidence Index

### **What is the aim of the tendency surveys directed at real sector firms?**

The primary aim of the business tendency surveys conducted in various ways in some countries is to find out the general tendency of the cyclical developments and to provide economic decision-makers with necessary information about future expectations. In general, ordinal scale is used for the responses to the questions included in the business tendency surveys (i.e. “*more optimistic, the same, more pessimistic*” or “*up, the same, down*”). This makes the survey results sensitive to the cyclical developments of the economic activity. In other words, the tendency surveys are used in order to forecast the contraction and the expansion periods of the economic activity, to identify the current economic condition of the country, and to predict the direction of changes in the business activity.

The Business Tendency Survey (BTS) of the Central Bank of the Republic of Turkey is prepared with the aim of discovering the opinions of the senior managers of the major private sector firms about the recent past and the future, containing questions on production, demand, investment, sales, employment, capacity utilization and inflation expectations. The BTS is a multiple-choice survey, and the choices are formulated as: “*more optimistic - the same - more pessimistic*”, “*up - the same - down*” or “*below normal – normal – above normal*”.

### **Why do we need a confidence index?**

The survey results are presented as diffusion indexes by subtracting the percentage of the responses “*more pessimistic*” (or “*down*”) from the percentage of the responses “*more optimistic*” (or “*up*”). However, the responses given to different questions can also be evaluated collectively and summarized in a single indicator. The aggregated indicator, which is a function of senior managers’ current and future evaluations and expectations, is called “confidence indicator”. The Real Sector Confidence Index of the CBRT, which is constructed under this approach, is calculated by making use of the responses given to the selected questions of the BTS.



### **How to construct a confidence index?**

Since the aim of the index is to forecast the expansion and contraction periods of the economic activity, the industrial production index, which is an important indicator for economic activity, is chosen as the reference series for comparison. For the cycles of the industrial production index, the series derived by the cooperative study of CBRT and OECD is used (See [www.tcmb.gov.tr/yeni/evds/yayin/oncu\\_gos/oncu\\_eng.html](http://www.tcmb.gov.tr/yeni/evds/yayin/oncu_gos/oncu_eng.html)).

The responses which are in the form of “*more optimistic, the same, more pessimistic*” or “*up, the same, down*” are coded. The responses indicating improvement (better off) for a particular variable are scored 1, while the responses showing no change are scored 0, and the responses showing a worsening condition are scored -1. The questions affecting the industrial production index positively are coded in the same direction, while those affecting adversely are coded in the reverse direction. The diffusion index is then constructed by summing up the related encoded responses obtained from the respondent firms.

There is no need for trend adjustment since the diffusion indexes formed by the survey data display cyclical patterns. While choosing the appropriate questions, the economic significance is considered, as well as the statistical methods such as the performance for leading the industrial production index, low volatility and cross correlation. The composite index is calculated on the equally weighted average of the sub-indices in line with the applications in the EU countries. No base-year adjustment has been made to the index.



### **How to interpret the Real Sector Confidence Index?**

Diffusion indices do not give information about the magnitude of the business cycles. Furthermore, intermittent increases or decreases in the index should not be interpreted as indications of expansion or contraction of the economic activity.

For an intuitive evaluation of the magnitude of the Real Sector Confidence Index:

*INDEX= 100 : A stable outlook to the economic activity by the real sector agents covered by the Business Tendency Survey.*

*INDEX > 100 : An optimistic outlook to the economic activity by the real sector agents covered by the Business Tendency Survey.*

*INDEX < 100 : A pessimistic outlook to the economic activity by the real sector agents covered by the Business Tendency Survey.*



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