

# **BUSINESS TENDENCY SURVEYS**

## **The nature of the surveys**

The business tendency surveys or shortly the so-called business surveys together with the consumer survey differ from the traditional statistical surveys by the information they gather. This information has mostly qualitative, verbal character. The economic agents (business managers and consumers) are asked to give their opinion of present or expected changes of certain economic variables/phenomena or assessments about the present level of these variables. The respondent is given a limited number of predetermined replies, usually 3 or 5, arranged in a way that gives the opportunity to rank the replies from optimistic through neutral to pessimistic. The survey results help to catch the direction of change of studied variable.

The business and consumer surveys give important and different information in comparison with the traditional statistics, i.e. information about the most prevailing opinion about the present or future behavior of a certain economic phenomenon. Information about the future is a very important characteristic of business and consumer surveys, since it makes them a good source of indicator sets for early signaling of economic changes.

## **Surveyed population by business surveys**

The survey unit is the enterprise. Because of the type of information gathered, i.e. subjective assessments and expectations mostly about internal and more rarely about external for the enterprise economic phenomenon, the interviewee is the manager of the enterprise. The importance of these subjective opinions (assessments and expectations) is that they influence the behavior of the economic agents because their behavior is determined not only by the objective reality, but also by the subjective interpretation of that reality.

## **Questionnaires**

The questionnaires of the business and consumer surveys do not gather any numbers.

The first type of questions of business surveys is related to the present or expected direction of change of economic variables such as production, competitive position on the market, selling prices, etc. The replies are presented in a three-option ordinal scale formulated as follows:

- "Increase", "No change", "Decrease" or
- "Improve", "No change", "Deteriorate".

The second type of questions is related to the level of the economic variable compared to an ideal level called "normal", "sufficient", "satisfying for the season". In the same manner are formulated the replies:

- "Above normal", "Normal", "Below normal" or
- "More than sufficient", "Sufficient", "Not sufficient", etc.

No definition or criteria about "the normality" is given in the questionnaire. It is left to the person to put in that category its own concept or idea.

The third type of questions as an exception requires quantitative information as for example the percent of the enterprise's capacity utilization, where the replies are tabulated as "from" and "to" a certain percent. Another quantitative question is related to the production assurance with orders measured in number of months.

The questions in the consumer survey are related to the present or expected direction of change of phenomena concerning the household of the interviewed person such as financial situation, intentions for purchases, saving, etc. and also related to macroeconomic phenomena as inflation, unemployment, general economic situation in the country, etc. The replies are presented in a five-option scale as for example for the question about the present change of the financial situation of the household over the last 12 months, i.e. “got a lot better”, “got a little better”, “stayed the same”, “got a little worse”, “got a lot worse”, as the last reply “don’t know” is not included in the calculation of the balance of opinions.

### **Frequency, survey period and time schedule for publication**

The frequency of the business surveys in industry, construction, retail trade and service sector according the Harmonised Programme of the European Commission is monthly. The survey is conducted in the first half of the current month “t” and the results are related to the current month ‘t’.

The business survey results are published in the last week of the current month about the 28<sup>th</sup> via internet and are sent to the government institutions. Not later than 4 working days before the end of the current month the results are sent via e-mail to the European Commission in Brussels.

The business survey information is extremely timely and it reflects to the highest degree the current economic situation because of the fact that results are published 2 weeks after the conduction of the survey and the data are related to a month for which the traditional statistical is provided much later. Moreover these surveys gather from the business forecasts as well.

### **Calculation of results**

#### **Weighting necessity**

Although no numbers are gathered with the business surveys, but opinions, it is logical to consider that for example the opinion of increasing output, export, etc. of a big company will outweigh the opinion of the small company. Weighting the results has its reasons in the fact that the contribution in the economic activity of different companies is different and is related to their size or market share.

From the point of view of the branch, the contribution of each branch to the economic activity is proportional to the value added it brings to the economy.

#### **Weighting**

On the lowest level of weighting in each group of enterprises (maximum 3 groups/strata at the 3<sup>rd</sup> digit of NACE) the distribution of the replies according the three variants: P – positive (+), E – neutral (=), and M – negative (-), represents the percentage distribution of the weights of enterprises that pointed out a given reply, but not the percentage distribution of their number. For individual weights NSI usually uses turnover or output and rarely employment. The equation is:

$$(P)\% + (E)\% + (M)\% = 100\%$$

On the second level of aggregation the results of the groups inside the 3<sup>rd</sup> digit of NACE are weighted by the structure of the same indicator (turnover and etc.) for the groups of enterprises. These are annual structures of the general population. The calculated results for the 3<sup>rd</sup> digit of NACE are weighted then by the contribution of the economic activity (3<sup>rd</sup> digit of NACE) in the value added (annual data) in the economic activity (2<sup>nd</sup> digit of NACE) and so on for the higher aggregation levels.

## **Presenting the results**

In order to use the variables from the business surveys as short-term economic indicators, it is necessary to transform the qualitative replies into quantitative indicators.

The indicator, which is perceived as the most appropriate, is called a balance (of opinions). This indicator is a function of the shares (percentages) of different variants of replies, i.e.:

$$B = 1x(P)\% + 0x(E)\% - 1x(M)\%$$

That function should satisfy some desired characteristics:

- Monotony. This characteristic of the function means that when the manager's opinion changes and when it moves from lower to higher category the indicator should increase its value. It means also that the positive change of the opinion by more than one category increases the indicator value by a greater extent. And vice versa.
- Equilibrium point. The existence of a variant of reply to serve as a starting point for direction change. Moving this category point to an upper one increases the indicator and vice versa - shifting of the reply in a downwards direction decreases the balance.
- Symmetry from both sides of the equilibrium point.

The balance indicators from business surveys are very useful when they are presented in dynamics.

## **The use of results**

### **Interpretation of results**

When interpreting results obtained from verbal questions regarding subjective opinions it is necessary to follow certain rules.

It is important to have in mind the exact formulation of the question. It is important if the question is for example about the direction of change of the production activity or if it is about a comparison of the level of finished goods with some kind of ideal level, called "normal" or "sufficient". In the second case the question reflects mostly the demand and sales rather than the real level of stocks.

One business survey in one month gives a static picture of the situation, while the time series of balances give useful indication not only of change of opinions but also of real change in the phenomenon. The exact value of the balance practically has no significant importance. What is important is the tendency in the behavior of the variable. In its economic content the balance of opinions is comparable with the first difference of the same variable of traditional statistics. The balance increase shows mainly an increase of optimism about the evolution of a given variable and a combination of time series of balance indicators can show the development of business climate.

### **The use of results in economic analysis and prognoses**

Governments and research institutes in many countries all over the world use sets of cyclical indicators for analyzing the business cycles and forecasting the turning points in the total economic activity.

### **The business survey indicators as cyclical indicators**

The statistical time series of business tendency surveys satisfy the criteria for cyclical sensitivity and economic significance because in their majority these time series have less seasonal fluctuations, they don't contain a trend-component, they can be considered as stationary and their cyclical profile is clearer. In Europe the business tendency surveys have more than a 60-years tradition and they play an important role in studying business cycles. The indicators of these surveys have great potential for tracing out and forecasting the

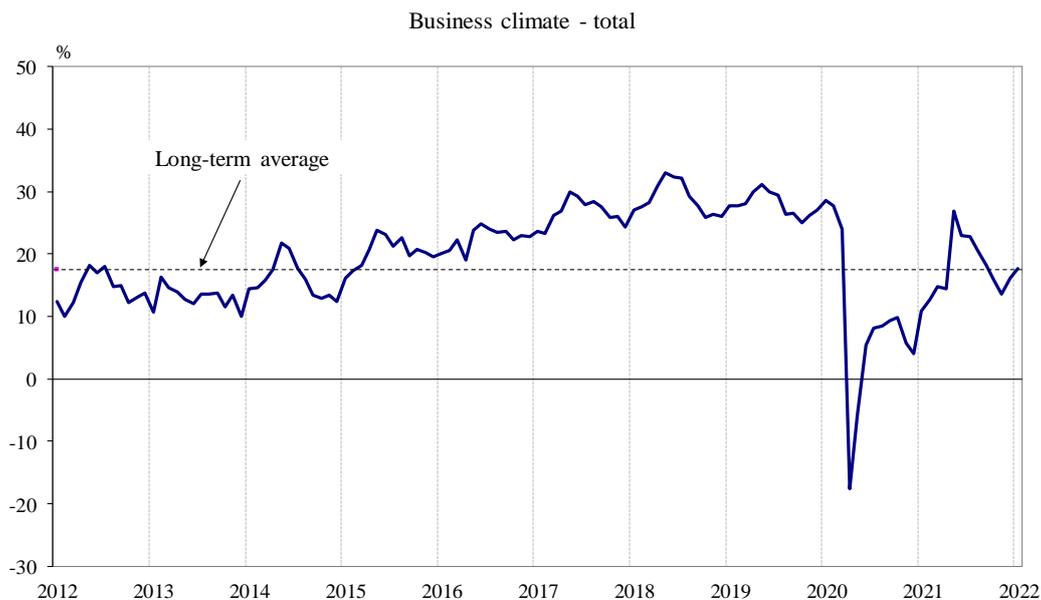
business cycles and they form about 40% in the set of leading indicators of OECD. This share is 100% for the leading indicator of European Commission, which is a weighted average of five confidence indicators - in industry, construction, retail trade, service sector and the consumer confidence indicator from consumer survey.

The preference of the European Commission for the data of business and consumer surveys is based on the argument that the information from these inquiries is quite fast (available for all Member States in the end of the reporting month), the data for all components are available at the same time and are not subject to revisions, the surveys are according to a harmonised methodology, which assures comparability between countries and helps data aggregation.

Since December 2001 NSI began publishing a total composite indicator of business climate in Bulgaria, which is a weighted average of four branch<sup>1</sup> indicators of business climate in industry, construction, retail trade and service sector.

### Limitations

A perfect composite leading indicator practically does not exist. Even if the historical performance of the indicator over the whole period is good, there is always a possibility of false or missing signals. That could be a result of structural changes, unusual phenomenon or statistical error.



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<sup>1</sup> Each branch indicator of business climate is a geometric average (by the formula of Germany's Ifo institute) of the balance of opinions of the present business situation in enterprises and the balance of opinions of the expected business situation over the next 6 months.