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DIRECTORATE-GENERAL FOR ECONOMIC AND FINANCIAL AFFAIRS

Supplement B

Business and consumer
survey results

Special edition — July 1991



*In this number:
The general principles
underlying the business surveys*

The system of business surveys in the European Community: an effective and widely respected instrument

The introduction of harmonized surveys has been exemplary in many respects: it is the result of continuous efforts by the Directorate-General for Economic and Financial Affairs since 1961 and ongoing consultations with national experts. The regular dissemination of the results of the Community surveys to those surveyed has also clearly played a major part in making managements aware of the need to take an overall European view when formulating their strategies.

The value of these Community surveys lies in the key role, now widely recognized, which individual expectations and decisions play in economic development. They provide a means of tracking cyclical movements, of pinpointing trend changes and of establishing forecasts. They also provide a means, through the *ad hoc* surveys set up by the Commission, of clarifying the benefits and difficulties that go with hoped-for changes in economic policy.

The results of the business surveys are thus of use to all those concerned with economic trends, to officials in government departments, to managements and to all decision-makers.

This guide to the business surveys is intended for them. Its aim is to enable them to derive maximum benefit from the Commission's published findings.

The general principles underlying the business surveys

1. The specific features of the business surveys

The business surveys differ from statistical surveys in their methods and use. They are simple and rapid surveys which have been designed to meet the needs of short-term economic analysis. Their use is based on specific indicators which help to summarize the qualitative replies of economic agents.

Business surveys are a relatively recent instrument in Europe. The first such survey was conducted by the IFO in Germany in 1949. The Insee in France and the ISCO in Italy introduced their first surveys shortly afterwards.

The initial development of business surveys thus dates from the 1950s. From 1962, the growth of business surveys in Europe took place largely within the framework of the harmonized programme of the Commission of the European Communities.

The special nature of business surveys means that, with a few exceptions, they are conducted not by statistical institutes but by institutes specializing in tracking cyclical movements, by trade federations or by public opinion institutes. This reinforces the special nature of business surveys, both in their methods and in their use.

The specific features of business surveys led the institutes conducting them to group together to form the Ciret (*Centre for International Research on Economic Tendency Surveys*). The Ciret was set up in 1960. Every two years, it holds a conference on the most recent developments and the applications of business surveys, which enables specialists from the 100 or so bodies which now conduct business surveys throughout the world to compare experiences. The papers presented at the Ciret conferences provide a rich source of documentation on the methods and the many different applications of business surveys. Secretarial services for the Ciret are provided by IFO in Munich.

2. Carrying-out of a business survey

Survey procedures are determined primarily with an eye to speed of execution. Most surveys are conducted by means of questionnaires sent by post. The normal timetable for a monthly survey is therefore as follows:

- dispatch of questionnaires on the first day of the month, with requests that they be returned within a week;
- on the 10 day of the month, dispatch of reminders to firms which have not replied (or telephone reminders);
- on the 20 day of the month, calculation of the survey results and their transmission to the Commission.

The majority of consumer surveys rely on interviews. Surveys conducted by telephone are tending to increase, since they can save an appreciable amount of time without affecting the quality of the findings.

Generally speaking, responsibility for carrying out surveys lies with the institutes appointed by the Commission to conduct them in each member country.

3. The business survey questionnaire

The business survey questionnaires contain a small number of questions (no more than 15). These questions are generally qualitative in nature.

Example of question:

Do you consider that your present order-book level is, for the season:

- above normal
- normal, or
- below normal?

This very simple type of questionnaire can be completed directly and without loss of time by any manager who is aware of his firm's current business position. If specific quantitative replies were requested, the manager, not having the figures requested at his fingertips and not having time to look for them, would not reply himself. The questionnaire would be passed on to the accounts department: this would delay the replies and mean that the questions calling for a forward assessment -- an essential feature of the business surveys -- would not be answered by those with an overall view of the firm's current position. Quantitative questions must be limited in number: they must be restricted to information that is well known to those in charge of firms, such as the annual investment budget. Questions introducing orders of magnitude are also permissible, such as the number of months of production represented by order-book levels.

The generally qualitative nature of the questions, the merits of which have been indicated, has the disadvantage of introducing an element of subjectivity into the replies. Account must be taken of this in interpreting the results of the surveys.

4. The samples

Some 50 000 firms and 20 000 consumers are surveyed each month in the Community. The samples vary according to the size of the member countries. The institutes appointed by the Commission to conduct the surveys in each country must ensure that the samples chosen are representative. With this in mind, they generally engage in a stratification exercise. The criteria used are, for the business surveys, size and activity sector and, for the consumer surveys, the sex, age and profession or employment of the person questioned.

In the interests of speed and in order to reduce costs, the number of firms questioned is kept to the minimum needed to obtain reliable results. Large firms are generally better represented than small and medium-sized firms, this in accordance with Neyman's theorem that the best estimates are obtained with a stratified sample in which the sampling ratios are directly proportional to the value of the average observation in each stratum.

In the case of the business surveys, the samples generally remain the same from one survey to the next: a panel is in effect established. In the case of industry, this approach is in fact imposed by the structure of the productive system, which is frequently highly concentrated. It is then essential to question the dominant companies in each branch. There are a number of advantages to be gained from always questioning the same firms: replies are received more quickly; the variability of results between two successive surveys is also reduced.

5. Calculation of the results

The sample being divided into strata, it is first necessary to calculate, for each stratum and for each qualitative question, the percentages of replies to each reply option. For the consumer surveys, a simple count is made. In the case of the business surveys, however, it is desirable to take account of the widely differing scale of the units questioned by weighting individual replies according to the size of the firms involved. The weightings most frequently used are turnover and workforce.

The overall results are then obtained by calculating a weighted average of the results by strata, the weightings used being representative of the relative importance of each stratum in the population studied. This method has the advantage of eliminating bias due to firms' failure to reply and to sampling difficulties.

In the case of quantitative questions, weighted averages are calculated, both for each stratum and for the calculation of the overall results.

6. Presentation of results

For a qualitative question in a given survey, therefore, results are obtained in the form of three or five percentages (according to the number of reply options).

Although maximum precaution has been taken, both in the choice of the sample and in the calculation, to ensure that the results are properly representative, it is clear that such percentages have limited significance where there are no past references for interpreting them: it is common knowledge that replies to an opinion poll have a certain subjective bias and may vary widely according to the way in which the question is formulated.

However, a movement over time in the reply percentages signifies a change in the opinions of those questioned (since exactly the same questions are always put) and in the variables being observed if it is assumed — as is verified by experience — that the reply behaviour of those surveyed does not vary (or varies only very slowly) over time. This therefore presents the problem of showing the simultaneous movement over time of a number of percentages the sum of which is constant. The presentational methods generally used in descriptive statistics (*see Graph 1*) can be applied only for a small number of surveys. As soon as it is necessary to show a period of 10 years or so (i.e. some 100 sets of survey results), which is frequently necessary in trend analysis to indicate the turning points of cycles, the traditional statistical presentation methods become technically unusable or result in graphs which are difficult to interpret.

Accordingly, the results of the business surveys are shown in the form of the 'balance', this being the difference between the percentages of extreme replies. For example, for a question with three reply options, the following can be established:

- ($+$) — the percentage of positive replies ('up', 'above normal'),
- ($=$) — the percentage of replies corresponding to the median reply option ('unchanged', 'normal'), and
- ($-$) — the percentage of negative replies ('down', 'below normal').

The balance is therefore: $s = (+) - (-)$.

Use of the balance makes it possible to summarize the responses to a question in a single figure and the changes in the responses to that question for successive surveys in a simple time series (*see, for example, Graph 2*).

When the results of the business surveys are published, the balance and the percentage of replies indicating no change ($=$) are generally shown, this enabling the three initial percentages to be recalculated where necessary.

From the equations:

$$\begin{aligned} (+) + (=) + (-) &= 100 \\ (+) - (-) &= s \end{aligned}$$

the following are immediately deduced:

$$\begin{aligned} (+) &= 50 + \frac{s + (=)}{2} \\ (-) &= 50 - \frac{s - (=)}{2} \end{aligned}$$

Frequently, for rapid publication and of course for the graphs, only the balance is used. While the reduction of the replies to a question to the balance alone means that some of the initial information is lost (since the three initial percentages cannot be recalculated from the balance without one of them being known), experience has shown that this loss of information is unimportant for the normal use of the surveys. For cyclical tracking purposes, the use of the balance is both practical and entirely adequate. It should be noted, however, that, for a given balance, the varying percentage of 'unchanged' replies may indicate a varying degree of uncertainty among managements: hence the advantage of the combined use of the balance and the percentage of 'unchanged' replies in probability models.

The balance can also be used for questions with five reply options (*used especially in consumer surveys*). Given the following reply percentages:

($++$), ($+$), ($=$), ($-$), ($--$),

the balance is:

$$s = \{(++ +) + (+)\} - \{(-- -) + (-)\}$$

For these with five reply options, the response to a question can also be summarized with the help of the 'characteristic value', which can vary from -1 (where all respondents choose the most negative option) to $+1$ (where all respondents choose the most positive option), with the values -0.5 , 0 and $+0.5$ indicating situations where all respondents choose intermediate options. This characteristic value is shown by the formula:

$$c = 1/100 \{(++ +) + \frac{1}{2}(+) - \frac{1}{2}(-) - (-- -)\}$$

The advantage of the characteristic value is that it makes it possible to distinguish the intermediate values ($+$) and ($-$) from the extreme values ($++$) and ($--$), whereas they are counted in the same way when the balance is calculated.

Despite the precautions taken to eliminate seasonal effects when formulating questions (*see the example given in section 3*), the 'balances' series frequently display some seasonality, which must be corrected before graphs are constructed.

The use of the business surveys

1. Advantages and limits of business surveys as sources of short-term economic information

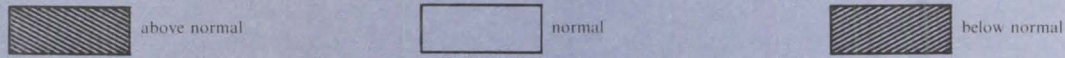
One advantage which business surveys are recognized as having is their rapidity: they provide a rapid means of compiling simple statistics, with the results available before those of traditional statistical methods.

A further major advantage is that business surveys provide information in areas not covered by quantitative statistics. For example, they give details about stocks, for which there is no other source of information in most Community countries.

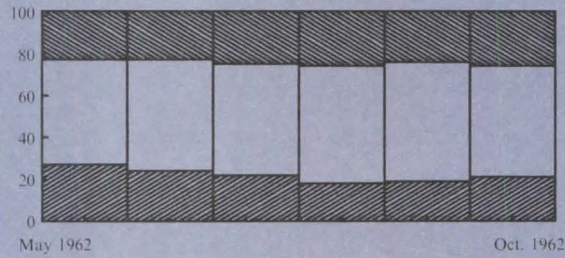
These surveys are thus an addition to, or even a substitute for, traditional statistics data.

The details provided by respondents are generally of a very high quality since the questions relate to subjects with which they are familiar. The information provided by managements on the past and future performance of their businesses is thus highly reliable; the views expressed concerning the general economic situation must be treated more cautiously. Similarly, consumers provide information of a very high quality on their purchasing intentions and on price trends; they have more difficulty in providing information about savings because they are not familiar with the savings ratio concept.

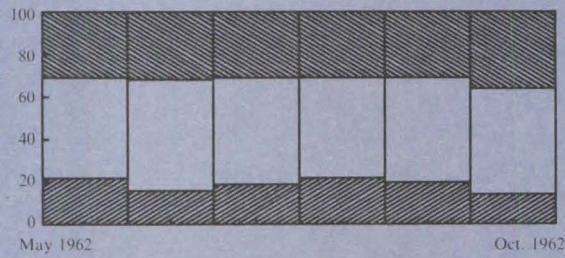
GRAPH 1: Industry survey: assessments of export order-books



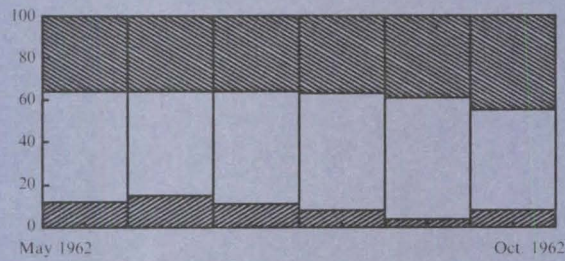
(%) Germany



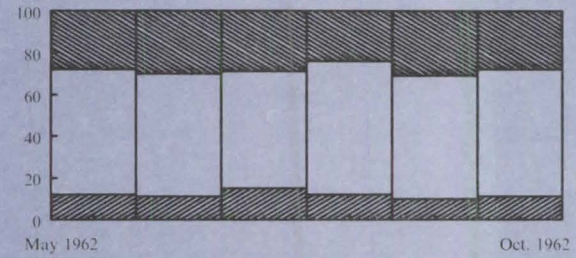
(%) France



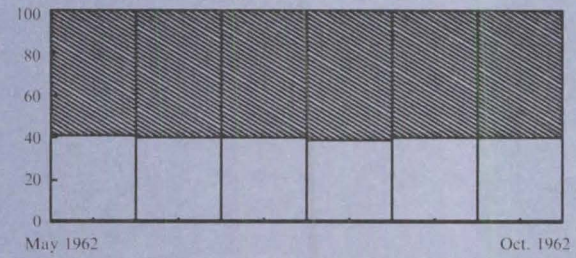
(%) Italy



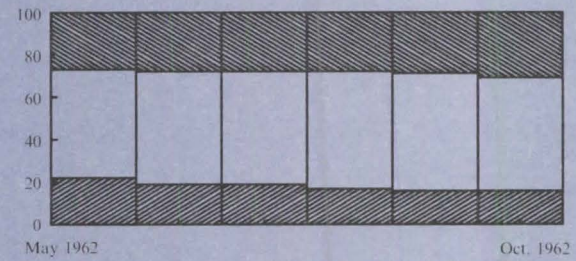
(%) Belgium



(%) Luxembourg

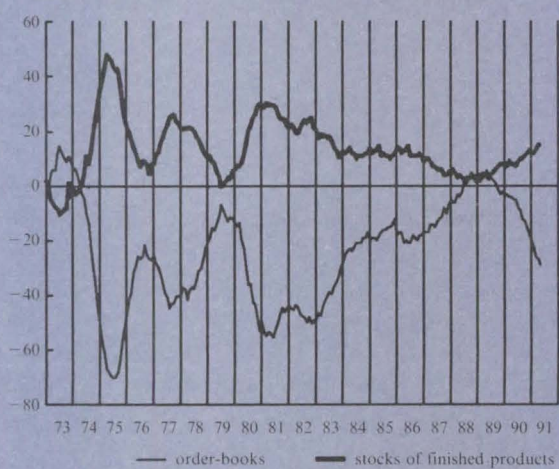


(%) European Community



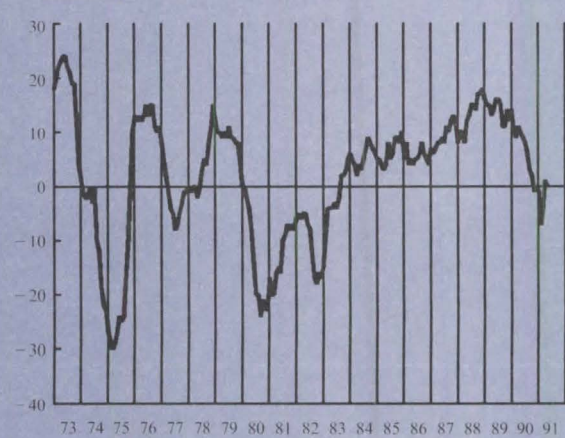
GRAPH 2: Monthly survey of European industry
Assessments of order-books and stocks

(Balance %)



GRAPH 3: Monthly survey of European industry
Expected production trend

(Balance %)



The most notable feature of the business surveys is that they provide tentative forecasts. These data are highly reliable since they cover the fields specified above and a short time horizon of the order of three months. The excellent quality of these very short-term forecasts is easily explained. In the business surveys firms indicate what their expectations are. In the very short term, firms' expectations are realized. For example, when the head of a firm states that he is going to increase output, he does so on the basis of an objective assessment of his order-books. Furthermore, he has also generally taken the technical measures necessary to ensure that output does in fact rise. If he has assessed the general economic situation wrongly and if he subsequently notes a fall-off in demand, he will be compelled to revise his production plans progressively, although the increased output indicated in the business survey will have been achieved initially. On a more general level, if there are differences between the expectations voiced by firms in the business surveys and the findings of macroeconomic analysis, the forecast is fragile, although it is highly likely that firms' expectations will greatly influence the very short-term trend.

Forecasts of the situation a year or more ahead which are made by firms in the business surveys are usually revised if the general economic situation changes: such is the case, for example, with the annual investment forecasts. In other words, the one-year forecasts made by firms are based on the assumption of an unchanged economic situation.

The business surveys have the advantage of providing a comprehensive view of a sector of the economy.

Thus, by providing, for example, details about past production, stocks, demand and expected production, the monthly survey of industry provides not only information about the trends of major variables but also, implicitly, a basic explanation of the cyclical situation in the various branches of industry.

2. Interpretation of the business surveys

Interpretation of the business surveys is sometimes complicated initially by the subjective nature of the replies, which are conditioned by the attitudes and ideas of the respondents. This difficulty is a counterpart to the advantages previously indicated, in particular the speed with which information provided by a qualitative questionnaire is obtained.

Interpretation of a business survey 'balance' must be based on the exact wording of the question. It is necessary to emphasize the expression 'precise formulation': when, for example, managements are asked whether their stocks are higher or lower than 'normal', the results obtained are clearly not the same as if they were asked whether their stocks were higher or lower than the average levels of the previous year because the concept 'normal stocks' can be influenced by price expectations. The results of this question are accordingly more useful for assessing the contribution of stocks to growth than for estimating the quantitative level of stocks.

In order to be able to interpret the surveys more accurately, the results over a fairly long period can be compared with other sources (quantitative statistics or national accounts), for example by attempting to estimate econometric relationships between the survey balances and these other data (*see section 4 below*). It is also frequently useful to check with a number of the firms surveyed that their reply behaviour is indeed what it is assumed to be.

Two phenomena which are occasionally observed in the business surveys and which must be taken into account in the interpretation are the possibility of references to past periods and the existence of 'bias'. In formulating their replies, firms may refer to the corresponding period of the previous year. Furthermore, it is quite

usual for those questioned to be consistently a little too optimistic (or a little too pessimistic) in their replies to a question. For example, the heads of industrial firms tend consistently to report that their order-books are rather lower than normal: in Graph 2 it can be seen that the long-term average of the balance relating to order-books is well below zero. Similarly, industrialists tend consistently to report that their stocks are rather higher than normal. The existence of a bias of this type in no way reduces the significance of the business surveys: it is sufficient to take account, in the interpretation, of the gap between the balance and its long-term average rather than of the gap between it and the level zero in order to correct this bias. There is no such bias in many of the important results of business surveys, this being the case, for example, with industrialists' views concerning their future production (*Graph 3*).

This section on the interpretation of the business surveys can be concluded with a few remarks concerning the theoretical work which has been carried out by Professor Theil and a number of other research workers with a view to formalizing the patterns of behaviour revealed by replies to surveys to determine the precise significance of the balances. Let us suppose, for the purposes of argument, that the production P of industrial firms is being studied. It is then possible to show, making two assumptions, that the balance of opinion on a question concerning the production trend is proportional to the average rate of growth of the production in question.

These two assumptions are as follows:

- the rate of growth of production P is distributed among firms, for a given period t , according to a normal law of averages $p(t)$, time function and fixed standard deviation e ;
- the firms reply to the question concerning the production trend on the basis of thresholds which are fixed and common to all ($S+$ and $S-$). This means that they indicate that production is down if the change in their production P is less than $S-$, that production is up if the change in their production P is more than $S+$ and that production is unchanged if the rate of growth of their production lies in the indifference interval $\{S-, S+\}$.

3. Business surveys and cyclical analysis

Economic development can be regarded as a fairly regular succession of cycles with successive phases of expansion and recession marked off by turning-points (peaks and troughs): the cycles can be classical cycles (where the recessions mean an actual fall in output) or growth cycles (where economic development is assessed in terms of the deviation from the long-term trend).

The main concerns of the forecasters using these techniques are to pinpoint the present position in the cycle and to predict the turning-points.

The business surveys are extremely useful for this cyclical analysis:

- the variables stemming from these surveys provide a good basis for assessing cycles; the degree of movement in those variables gives a clear picture of the various phases of the cycles. Graphs 2 and 3, which show the results of the monthly industry survey of the production trend and the assessments of stocks of finished products and order-books, demonstrate in spectacular fashion the cyclical development of European industry over the last two decades: an expansion phase is characterized both by a rise in the production trend and order-book assessments and by a fall in assessments of stocks; a recession phase is characterized by the opposite movements;

- many of the indicators stemming from the business surveys are leading indicators and can therefore be used to predict turning-points: such is the case, for example, with industrialists' production forecasts or order-book assessments.

This experience has led to the establishment of composite cyclical indicators for each Community harmonized survey. These indicators are called 'confidence indicators' because they summarize economic agents' assessments of the economic situation. They are made up of the averages of the replies to the main questions in each survey. This calculation based on averages is all the more justified as the chosen variables have correlated results.

Thus, the industrial confidence indicator is an average of the replies (balances) to the questions concerning:

- the production outlook;
- total order-books;
- stocks of finished products (with inverted sign).

The industrial confidence indicator (*Graph 4*) is highly representative of the industrial situation in the Community.

The construction confidence indicator is an average of the replies to the questions concerning:

- order-books;
- employment expectations.

This confidence indicator is very closely linked to activity in the building and construction industry (*Graph 5*).

The consumer confidence indicator is based on the replies to five questions concerning:

- the financial situation of households now compared to 12 months previously;
- the prospects for the financial situation of households over the next 12 months;
- the general economic situation now compared to 12 months previously;
- the prospects for the general economic situation over the next 12 months;
- the advisability of making major purchases of consumer durables.

The use of a greater number of questions is due to the fact that the consumer survey is more complex than the other business surveys. The consumer confidence indicator nevertheless produces remarkable results: the level of this indicator is very closely linked to the change in household consumption in the Community (*Graph 6*).

These various indicators are finally combined in the economic sentiment indicator in the Community (*Graph 7*). This indicator is the average of four sets of data: the three confidence indicators and the share price index. This last series was incorporated because of the important interactions — in both directions — between stock markets and the general economic climate.

4. The business surveys and modelling

A fair number of studies have been carried out with a view to exploiting to the full, with the help of econometric methods, the wealth of information produced by the business surveys.

In the wake of Theil's work (*see section 2 above*) showing the possibility of a proportionality link between the variable studied and the balance of the replies, a number of attempts have been made to 'quantify' the survey results, i.e. to estimate a simple regression between a series of results from a question and a

quantitative time series. This approach has produced good results, for example for the quantification, in terms of a production index, of assessments of the production trend.

Many studies have used the business surveys in order to analyse the formation of firms' expectations and to throw more light on the role of expectations in economic theory. The best basic materials for this type of research are the series of individual replies to the business surveys.

Another approach, which was developed in the 1980s, is to adopt the analytical and forecasting methods of the time series. These use models which have no explanatory aims ('black boxes') but which provide forecasting results because they are good at capturing the short-term dynamic linkages. The autoregressive vector models, which regress a set of variables on their lags, can thus be applied to a small number of the most important variables in a business survey. They then provide interesting two or three-quarter forecasts in the fields of production and prices. The disadvantage of these models is that they relegate the explanatory links between the variables to a subordinate position.

One of the best ways of using the business surveys for forecasting purposes is to include a number of their variables in an econometric model. The comparative advantage of a model based on the business surveys is that it is founded on rapidly available information, which makes it possible to make forecasts directly for a number of variables, at least with a short time horizon corresponding to that of firms' expectations. The direct knowledge of expectations is also an advantage because the formation of expectations and decisions is a very complex process which is difficult to capture by means of traditional econometric methods. The main difficulty encountered with a model based on the business surveys is that, when forecasts with an appreciably longer time horizon than that of the expectations are required, it is necessary to forecast (i.e. to enter endogenous) the assessments given in the surveys.

Since 1982, the Commission has been using an econometric model based on the Community surveys: the BUSY model. This was designed to exploit to the full the harmonized industry and building surveys and the consumer survey. The opinions expressed in these surveys thus constitute the key variables in the equations used to calculate the macroeconomic aggregates.

The BUSY model consists of two blocks: an 'expected assessments' block and a 'reported assessment' block. This special feature is due to the fact that the model is based on the business surveys: the only function of the 'expected assessments' block is to predict replies to surveys for periods beyond the time horizon of firms' expectations. The 'reported assessments' block is used to predict the macroeconomic variables on the basis of the opinions actually expressed in the surveys. The outline of this block is shown in Table 1. The degree of sophistication of the 'reported assessments' equations varies according to the degree of correspondence between the question in the survey and the variable to be predicted and according to the variability of the opinions expressed.

In an initial stage, the 'reported assessments' block is used to estimate the trend in domestic demand in each member country. Private consumption is estimated on the basis of consumers' opinions regarding their financial position and the general economic situation.

Productive investment is predicted on the basis of the plans declared in the surveys on investment and the production outlook. Investment in buildings and public works is calculated from the views expressed regarding order books in the building industry survey.

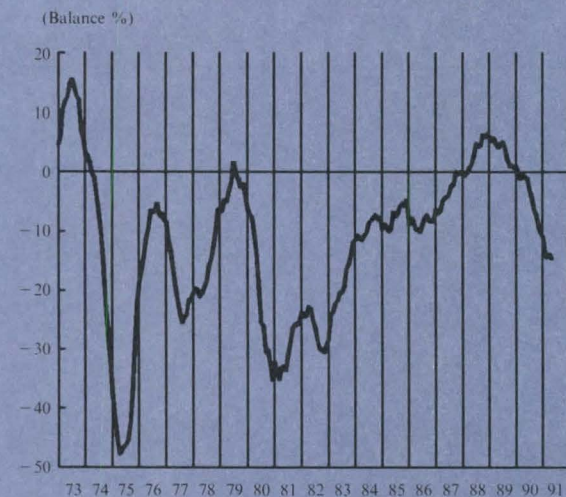
The final component necessary for calculating domestic demand, the change in stocks, is estimated from the assessments regarding stocks and production prospects.

In a second stage, the model calculates the components of the countries' external trade. A country's exports are mainly determined on the basis of the other member countries' domestic demand. Each country's imports are functions of domestic demand and of a competitiveness factor.

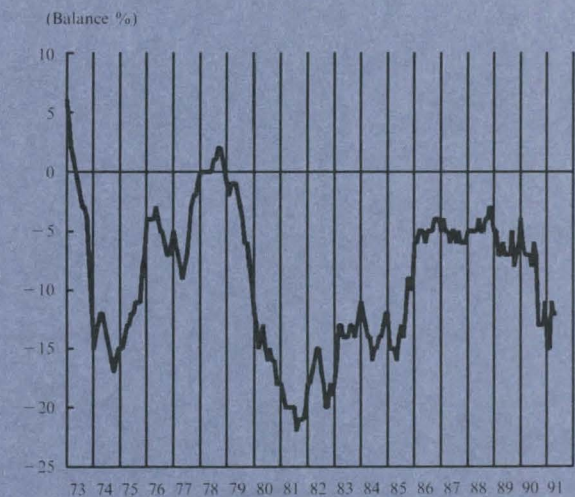
The BUSY model provides perfectly satisfactory forecasts for a time horizon of one year. It will have been noted that this model also includes traditional macroeconomic variables. It is impossible to reconstruct from the business surveys alone the whole of the 'Keynesian triangle' (income → demand → supply → income...) which is basic to the functioning of the macroeconomic models: the business surveys provide very good information on the formation of demand and supply; they do not, however, provide direct information on the formation of incomes.

GRAPHS 4-7: Confidence indicators

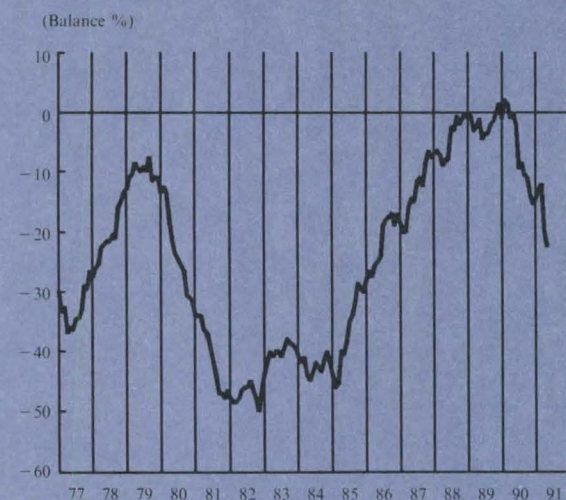
GRAPH 4: Industrial confidence indicator



GRAPH 6: Consumer confidence indicator



GRAPH 5: Construction confidence indicator



GRAPH 7: Economic sentiment indicator for the European Community

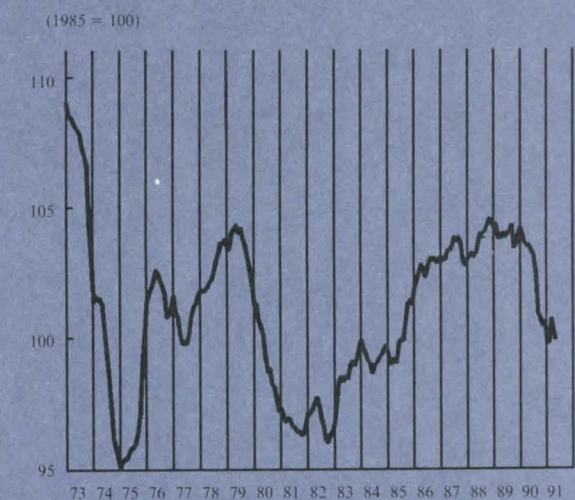
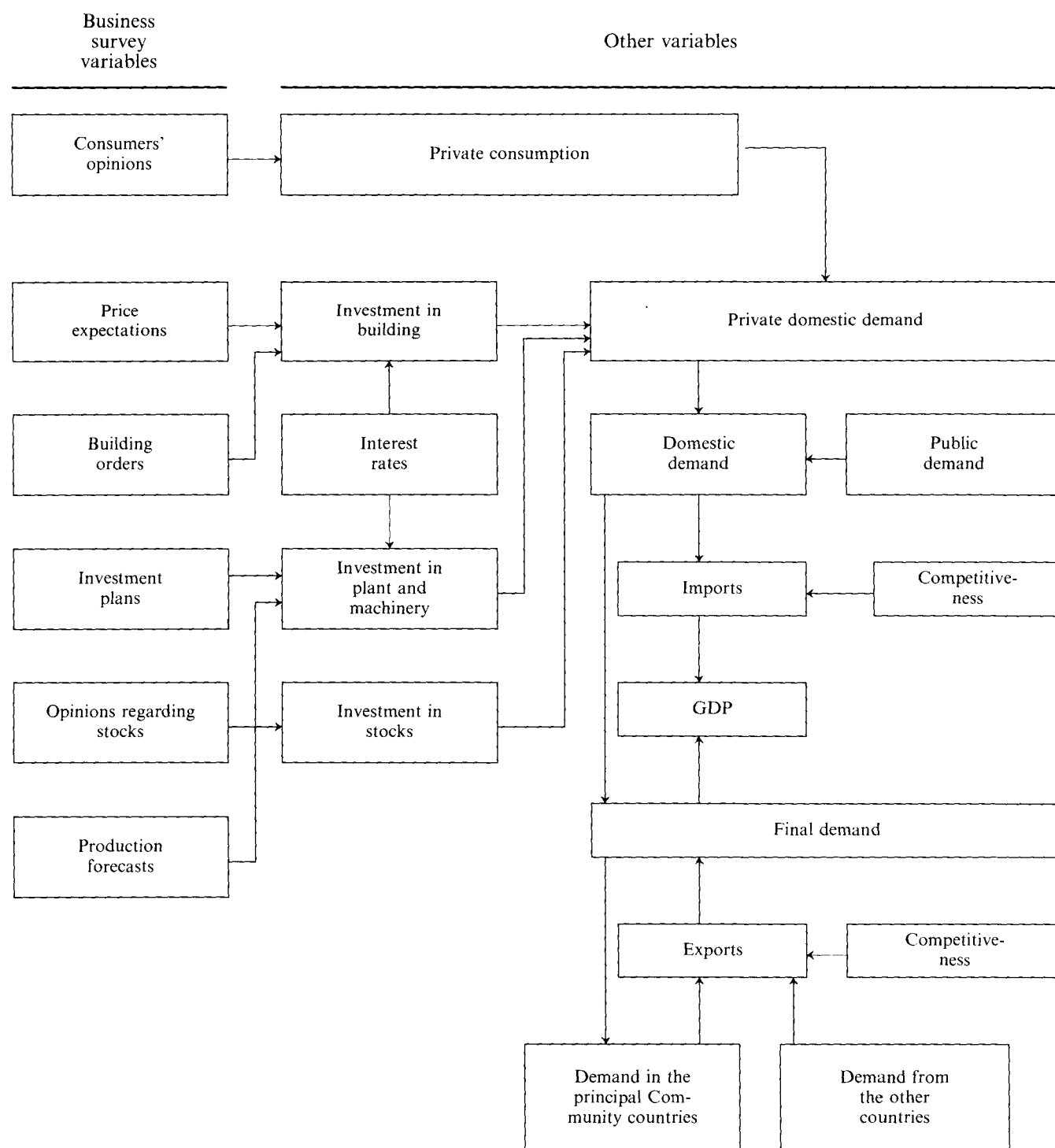


TABLE 1: Simplified outline of the Busy model (reported assessments block)



The harmonized industry survey and the survey of investment in industry

1. Origins

It was in 1961 that the Directorate-General for Economic and Financial Affairs drew up a programme of business surveys with the aim of obtaining rapid information on the industrial activity trend in the Community by asking managements to complete a simple questionnaire. At that time, surveys of this type existed in most of the six member countries; they had been carried out for 10 years or so by the IFO in Munich, the Insee in Paris and the ISCO in Rome. However, these existing surveys differed fairly widely in terms of frequency, questions asked and scope. Furthermore, the results were communicated to the Commission only through the national institutes' publications. Under the programme worked out in conjunction with the national institutes, the key data on industrial activity were transmitted to the Commission in a comparable form for all countries and within one month; such progress in obtaining information did much to assist cyclical analyses. Furthermore, provision was made for the Commission to publish, for the press and industry, documents setting out the results of the surveys conducted in the various countries, which inevitably had appreciable psychological repercussions.

The decision to undertake a harmonized programme of business surveys was taken by the Commission on 15 November 1961. The first surveys on the situation and prospects in industry were conducted in 1962. The surveys on investment began in 1963.

The great length of the series of available results for these industry surveys is a key element in their usefulness.

2. General method employed

The industry survey is conducted on a monthly basis¹ throughout manufacturing industry.

The questionnaires are sent by post to a sample which is generally made up of several thousand firms. The distribution of the firms in the various member countries depends on the relative size and concentration of the different industries. In all cases, there are sufficient different firms to guarantee that the results obtained are representative, both for industry as a whole and for each sector. Almost all the large industrial companies in the Community take part in the survey, although small and medium-sized firms are not neglected. The individual replies and the results for each sector are weighted in order to take due account of the structure of the sector. Details of these weightings are given in Table 2.

The investment survey is conducted every six months in industry (in March/April and in October/November). Questionnaires are sent by post to a sample which generally consists of the firms questioned in connection with the monthly business survey. However, the sample is frequently somewhat larger for two reasons:

- the investment survey includes the extractive industries and, in some countries, public enterprises;
- the number of firms surveyed is increased in some sectors in order to obtain a more accurate picture of the movement of investment. The rate of growth of investment is a highly dispersed variable. Many small and medium-sized firms invest on an irregular basis, carrying out a major project one year and then not investing or investing very little the following year. The variation in investment between two successive years may thus be very sharp for a given firm, and it is necessary to survey a

fairly large number of firms in order to arrive at an average which is representative of the change in investment in a sector. It should be added that industrial investment also reveals cyclical fluctuations which are very pronounced and sharper than those of production.

The industry surveys are conducted using a nomenclature based on the NACE (general industrial classification of the European Community). The nomenclature used for the monthly survey is slightly more detailed than that used for the investment surveys (see Table 3). The questions relating to production, order books, stocks and prices can be put for each of a firm's products; investment, by contrast, is not generally broken down by product and can be surveyed only at overall company level.

The industry surveys (monthly survey of economic activity and investment survey) are conducted on the Commission's behalf at national level by the following bodies:

Belgium

Banque Nationale de Belgique (BNB)
boulevard de Berlaimont 5
B-1000 Brussels

Denmark

Danmarks Statistik (DS)
Sejrogade, 11 — Postbox 2550
DK-2100 Copenhagen

Germany

Ifo-Institut für Wirtschaftsforschung
Poschingerstrasse, 5 — Postfach 860460
D-8 Munich 86

Greece

Institute of Economic and Industrial Research (IEIR)
12-14, Mitropoleos Street
GR-Athens 126

Spain

Ministerio de Industria y Energía (MIE)
Estudios y Promoción industrial
Paseo de la Castellana, 160
E-28046 Madrid

France

Institut National de la Statistique et des Etudes Economiques (Insee)
18, boulevard A. Pinard
F-75675 Paris Cedex 14

Ireland

Confederation of Irish Industry (CII)
Confederation House, Kildare Street
Dublin, Ireland

and

Economic and Social Research Institute (ESRI)
4, Burlington Road
Dublin 4, Ireland

Italy

Istituto Nazionale per lo Studio della Congiuntura (ISCO)
Via Palermo, 20
I-00184 Rome

Luxembourg

Service Central de la Statistique et des Etudes Economiques (Statec)
19-21 boulevard Royal
L-Luxembourg

The Netherlands

Centraal Bureau voor de Statistiek (CBS)
Prinses Beatrixlaan, 428
Voorburg
The Netherlands

¹ Except in Denmark where the survey is conducted on a quarterly basis.

Portugal

Instituto Nacional de Estatística (INE)
Avenida Antonio José de Almeida
P-1078 Lisbon codex

United Kingdom

Confederation of British Industry (CBI)
Centre Point, 103 New Oxford Street
London WC1A 1DU, United Kingdom
and

Business Statistics Office (BSO)
Cardiff Road
Newport, Gwent NPT 1XG, Wales
United Kingdom

3. The questionnaires

The industry survey questionnaire is made up of a monthly section and a quarterly section.

The monthly section is designed to establish the production trend and the factors determining that trend. The six monthly questions are as follows:

Q.1. Production trend observed in recent months:

1. up
2. unchanged
3. down

Q.2. Assessment of order-book levels:

1. above normal
2. normal
3. below normal

Q.3. Assessment of export order-book levels:

1. above normal
2. normal
3. below normal

Q.4. Assessment of stocks of finished products:

1. above normal
2. normal
3. below normal

Q.5. Production expectations for the months ahead:

1. up
2. unchanged
3. down

Q.6. Selling price expectations for the months ahead:

1. up
2. unchanged
3. down

The quarterly questions are designed to pinpoint the elements determining the production trend and to assess the situation of the factors of production.

They are eight in number:

Q.7. Employment expectations for the months ahead:

1. up
2. unchanged
3. down

Q.8. Limits to production:

1. none
2. insufficient demand

3. shortage of labour
4. lack of equipment
5. others

Q.9. Assessment of current production capacity:

1. more than sufficient
2. sufficient
3. not sufficient

Q.10. Duration of production assured by current order-book levels:
... months

Q.11. New orders in recent months:

1. up
2. unchanged
3. down

Q.12. Export expectations for the months ahead:

1. up
2. unchanged
3. down

Q.13. Current level of capacity utilization:
(as percentage)

Q.14. Assessment of stocks of raw materials:

1. high
2. normal
3. low

A special feature of the investment survey questionnaire is that it includes quantitative questions on the change in firms' investment expenditure (at current prices):

• **March/April survey:**

1. Percentage change in investment last year compared with investment two years ago.
2. Percentage change in investment this year compared with investment last year.

• **October/November survey:**

1. Percentage change in investment this year compared with investment last year.
2. Percentage change in investment next year compared with investment this year.

In some countries, the bodies responsible for conducting the investment surveys ask firms for details of their investment budgets for a number of successive years and then calculate average percentage increases.

The survey also includes questions relating to the purposes of the investment, the aim being to assess the impact of the investment on the change in production capacity and on productivity.

The suggested motives are:

1. Replacement investment.
2. Investment aimed at extending production capacity:
 - with an unchanged product range;
 - so as to extend the product range.
3. Rationalization investment:
 - mechanization or automation of existing manufacturing processes
 - introduction of new production techniques
 - energy saving.
4. Other motives (for example, pollution control, safety, etc.).

Since 1988, questions on the factors affecting investment have been introduced. The aim of these is to obtain reactions concerning economic policy postures likely to promote investment, which is regarded as a condition of medium-term growth. Firms are requested to state whether each of the following factors has a very stimulating effect, a stimulating effect, no effect, a limiting effect or a very limiting effect on investment:

- demand;
- anticipated financial resources or profits;
- technical factors;
- other factors (to be specified).

4. General assessment and prospects

Although its share of member countries' gross domestic product is tending to diminish slowly, the industrial sector is continuing to play a key role in the Community's economic development. The monthly business survey, which provides a rapid and regular overall view of Community industry, is therefore very much valued by all those interested in the trend of economic activity. For example, the rate of utilization of production capacity (*Graph 8*) is regarded as one of the best indicators of the cyclical situation in industry.

This survey is also, to some degree, the model for all the business surveys: it is the questions in this survey which have been adopted or adapted for the other sectors. The investment survey plays an important role because it is one of the few sources of information on this key variable (*Graph 9*).

These industry surveys are very effective. It would not seem necessary to make any major changes to them. This does not rule out, however, possible specific improvements, such as the introduction of new questions concerning supply factors.

TABLE 2: Method employed in industry survey, by country

| Country | Type of sample | Rate of reply | Weightings of results |
|------------|----------------|---------------|-----------------------|
| B | 1 000 | 90 % | turnover |
| DK | 1 000 | 90 % | workforce |
| D | 4 000 | 90 % | value added |
| GR | 1 000 | 40 % | turnover |
| E | 3 000 | 80 % | workforce |
| F | 3 500 | 70 % | turnover |
| IRL | 400 | 70 % | turnover |
| I | 4 000 | 70 % | value added/workforce |
| L | 100 | 90 % | value added |
| NL | 2 000 | 80 % | turnover |
| P | 1 000 | 85 % | value added |
| UK | 3 000 | 60 % | workforce |

TABLE 3: Industrial classification

O. Industry as a whole

I. Consumer goods

II. Investment goods

III. Intermediate goods

1. Textile industry

- a. Wool industry
- b. Cotton industry
- c. Knitting industry

2. Footwear and clothing industry

- a. Manufacture of footwear
- b. Clothing

3. Timber and wooden furniture industries

- a. Wood
- b. Wooden furniture

4. Manufacture of paper and paper products; printing and publishing

- a. Manufacture of paper
- b. Processing of paper
- c. Printing and publishing

5. Leather and leather goods industry

6. Processing of plastics

7. Mineral oil refining

8. Production and preliminary processing of metals

9. Manufacture of non-metallic mineral products

- a. Products for construction purposes, ceramic products for the building sector and for industry, flat glass
- b. Fine ceramic products and hollow glass

10. Chemical industry

- a. Basic industrial chemicals
- b. Chemical products for industrial and agricultural purposes
- c. Other chemical products

11. Man-made fibres industry

12. Manufacture of metal articles

13. Mechanical engineering

- a. Agricultural machinery and tractors
- b. Machine-tools
- c. Textile machinery and accessories
- d. Engines, compressors, pumps

14. Manufacture of office machinery and data-processing machinery

15. Electrical engineering

- a. Manufacture of electrical machinery
- b. Household electrical appliances, radio and television receivers
- c. Electric lamps and other electric lighting equipment, assembly and installation of electrical equipment and apparatus

16. Manufacture of motor vehicles, motor-vehicle parts and accessories

- a. Manufacture and assembly of motor vehicles (including road tractors) and manufacture of motor-vehicle engines
- b. Manufacture of bodies for motor vehicles and of motor-drawn trailers and caravans
- c. Manufacture of parts and accessories for motor vehicles

17. Manufacture of other means of transport

- a. Shipbuilding
- b. Manufacture of cycles, motor-cycles and parts and accessories thereof

18. Manufacture of rubber products

19. Precision engineering, optics and the like

20. Food, drink and tobacco industry

Investment survey

Basic materials industries

Chemical industry

Petroleum

Construction materials, ceramics, glass

Manufacture of man-made fibres

Rubber

Metal working industries

Iron and steel industry

Initial processing of ferrous metals (excluding foundry operations)

Non-ferrous metals industry

Equipment goods

Foundry operations

Manufacture of metal consumer goods

Plant and heavy machinery

Manufacturing of machinery other than electrical

Household electrical appliances, radio and television receivers

Manufacture of heavy electrical equipment

Motor vehicle industry

Shipbuilding, aircraft construction and railway equipment

Precision engineering, optics, clock and watch manufacture

Processing industries

Textile industry

Clothing and hosiery

Leather and footwear

Wood and cork

Furniture

Paper and board manufacture

Paper and board processing

Printing

Plastics processing

Extractive industries

Mining and preparation of solid fuels

Metal mining

Crude petroleum and natural gas

Stone quarrying, clay and sand

Food industries

Industry as a whole

The harmonized building survey

1. Origins

Building and construction is an industrial activity which differs somewhat from the others: its production, investment and selling processes are a little different from those of the other sectors. Building and construction could not therefore be included in the industry survey. Nevertheless, it was natural to extend the surveys to this very important sector of the economy, which frequently follows its own cycle, particularly as most of the institutes which conducted the industry survey on behalf of the Commission also carried out a building survey.

The decision to conduct surveys in the building and construction sector was taken by the Commission in July 1966.

2. General method employed

The survey is conducted with the help of a questionnaire sent by post. The total sample for the whole of the Community consists of some 12 000 firms. The samples vary in size according to country because of major structural differences (varying degree of concentration) (*see Table 4*).

In Belgium, Denmark, Germany, Greece, Spain, France, Italy and Luxembourg, the building survey is conducted for the Commission at national level by the same bodies which are responsible for the industry surveys (*see previous chapter*). In the remaining four member countries, the survey is conducted by different bodies specifically concerned with building and construction. These are:

Ireland

CIF (Construction Industry Federation)
Federation House — Canal Road
Dublin 6
Ireland

The Netherlands

EIB (Economisch Instituut voor de Bouwnijverheid)
De Cuserstraat, 89
1081 CN Amsterdam
The Netherlands

Portugal

Aecops (Associação de Empresas de Construção e Obras Publicas do sul)
Rua Antonio Enes 9
P-1000 Lisbon

United Kingdom

BEC (Building Employers Confederation)
82 New Cavendish Street
London W1M 8AD
United Kingdom

The building survey is conducted on a monthly basis in most countries. It is a quarterly survey in Denmark, Greece, France, Ireland and the United Kingdom, but there are plans to switch to a monthly survey in those countries too.

The nomenclature used for the survey is very simple. The building and construction industry is divided into:

Buildings

of which:

- housing
- other building

Public works (civil engineering)

In order to calculate the results for each nomenclature item, firms' replies are generally weighted according to their workforce. The overall results are then calculated by weighting the results for each item by their value added.

3. The questionnaire

The questionnaire consists of five monthly questions and one quarterly question.

Q1. Trend of activity compared with preceding months:

1. up
2. unchanged
3. down

Q2. Limits to production:

1. none
2. insufficient demand
3. bad weather
4. shortage of manpower
5. lack of materials and/or equipment
6. others

Q3. Order-books or production schedules:

1. above normal
2. normal
3. below normal

Q4. Employment expectations for the months ahead:

1. up
2. unchanged
3. down

Q5. Price expectations for the months ahead:

1. up
2. unchanged
3. down

The quarterly question is as follows:

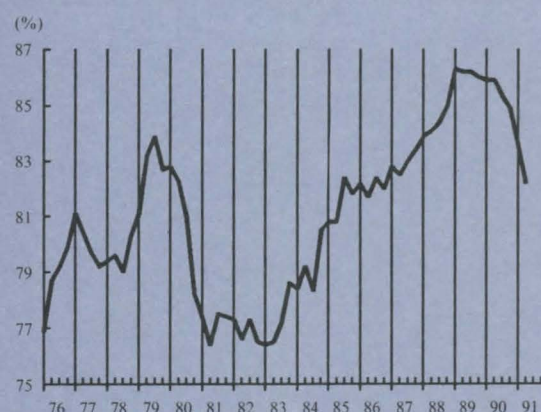
Q6. With normal working hours, the work in hand and work already contracted for will account for approximately ... months' operating time.

As can be seen, this short questionnaire is primarily intended to track the trend of activity in the building and construction sector. For that purpose, it uses the tried and tested questions of the industry survey.

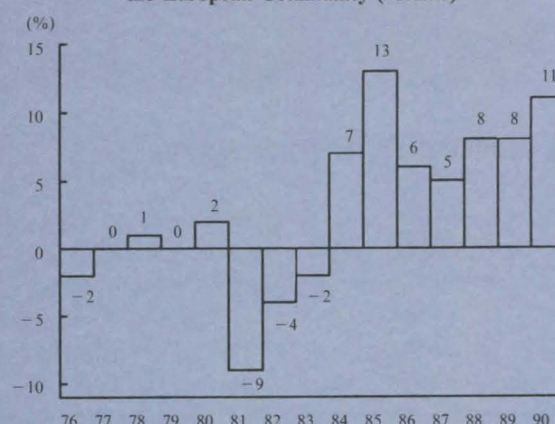
TABLE 4: Method employed in building survey, by country

| Country | Type of sample | Rate of reply | Weightings of results |
|------------|----------------|---------------|-----------------------|
| B | 500 | 90 % | workforce |
| DK | 700 | 90 % | workforce |
| D | 1 000 | 80 % | workforce |
| GR | 500 | 40 % | workforce |
| E | 600 | 80 % | workforce |
| F | 4 000 | 75 % | turnover |
| IRL | 750 | 50 % | turnover |
| I | 500 | 70 % | workforce |
| L | 50 | 90 % | value added |
| NL | 600 | 75 % | workforce |
| P | 2 500 | 75 % | workforce |
| UK | 700 | 70 % | workforce |

GRAPH 8: Rate of utilization of production capacity in European industry



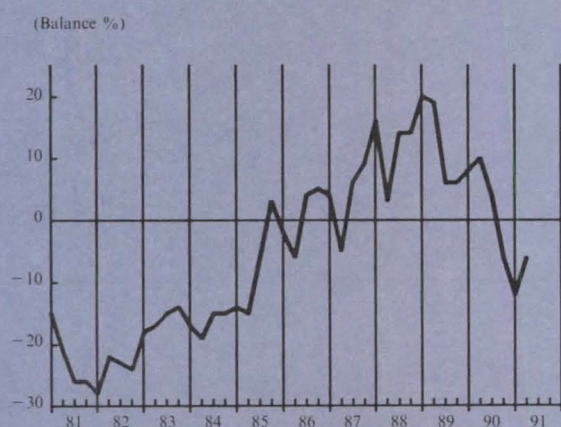
GRAPH 9: Change in investment in industry in the European Community (volume)



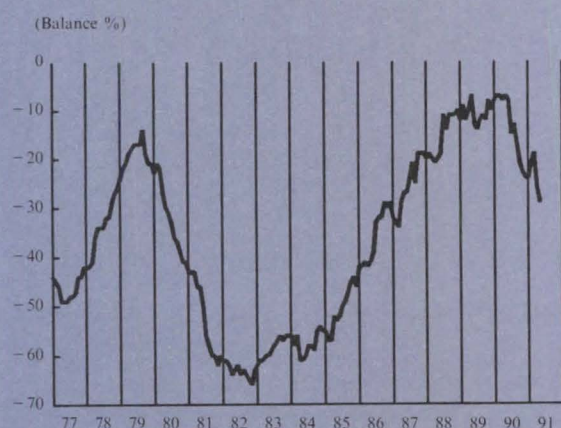
4. General assessment and prospects

There is no particular problem in conducting the survey on a regular basis. The aim now is to obtain monthly results in all countries. The survey indicators provide a good picture of the trend of activity in building and construction (*Graphs 10 and 11*).

GRAPH 10: Building survey
Activity compared with previous quarter



GRAPH 11: Building survey
Order-books assessments



Federal Republic of Germany) had carried out retail surveys for a number of years within the same framework as for the industry surveys and had found the results satisfactory.

Originally, the harmonized survey was conducted only in four countries: Belgium, France, the Federal Republic of Germany and the United Kingdom. Participation was gradually extended to Italy (from October 1985), the Netherlands (from January 1986), Spain (from September 1988) and Portugal (from January 1989).

A total of eight countries therefore currently take part in the survey. The survey is conducted every month, except in France and Italy (every two months). These two countries have agreed in principle to move to a monthly survey (as from 1991 in the case of France).

2. General method employed

The survey is generally conducted by means of a questionnaire sent by post; telephone surveys are conducted in Spain and the Netherlands. Sampling methods and sample sizes vary according to member country (*see Table 5*).

In order to calculate the results, replies are generally weighted, normally according to turnover.

The replies are provided on the basis of a retail trade breakdown into six main branches:

- R1. Food, drink and tobacco
- R2. Textiles, clothing, footwear
- R3. Household goods, of which:
 - R3.1 Electrical
 - R3.2 Other (furniture, etc.)
- R4. Motor vehicles (including parts)
- R5. Large multiple shops (including department stores and mail-order houses)
- R6. Remaining retail trade

TABLE 5: Methods employed in retail trade survey

| Country | Type of survey | Sampling method | Approximate number of replies | Main weightings used |
|---------|----------------|--------------------|-------------------------------|----------------------|
| B | Postal | Random, stratified | 350 | Turnover |
| D | Postal | Quotas | 1 000 | Turnover |
| E | Telephone | Random | 600 | None |
| F | Postal | Random, stratified | 2 500 | Turnover |
| I | Postal | Quotas | 1 000 | Workforce |
| NL | Telephone | Panel | 400 | None |
| P | Postal | Random, stratified | 500 | Turnover |
| UK | Postal | Random, stratified | 1 000 | Gross margins |

The harmonized retail trade survey

1. Origin

This survey has been conducted since January 1984. The results have been published in Supplement B to *European economy* since April 1985. The extension to the retail trade of the activity surveys previously carried out in industry and building and construction was justified for two reasons:

- (i) this new survey area is part of the tertiary sector, which is planning an increasingly important part in the economy;
- (ii) a number of Community countries (Belgium, France and the

The harmonized retail trade survey is conducted on behalf of the Commission at national level by the following bodies:

Belgium

Banque Nationale de Belgique (BNB)
boulevard de Berlaimont 5
B-1000 Brussels

Germany

Ifo-Institut für Wirtschaftsforschung
Poschingerstrasse, 5 — Postfach 860460
D-8 Munich 86

Spain

Intergallup SA
Paseo de la Castellana 72-1º
E-28046 Madrid

France

Institut National de la Statistique et des Etudes Economiques (Insee)
18, boulevard A. Pinard
F-75675 Paris Cedex 14

Italy

Istituto Nazionale per lo Studio della Congiuntura (ISCO)
Via Palermo 20
I-00184 Rome

The Netherlands

NIPO (Nederlands Instituut voor de Publieke Opinie en het marktonderzoek)
'Westerdokhuis', Barentszplein 7
1013 Amsterdam
The Netherlands

Portugal

Instituto Nacional de Estatística (INE)
Avenida Antonio José de Almeida
P-1078 Lisbon codex

United Kingdom

Confederation of British Industry (CBI)
Centre Point, 103 New Oxford Street
London WC1A 1DU
United Kingdom

3. The questionnaire

The questionnaire has been adapted to suit a sector which comprises many very small firms; it is made up of five simple and specific questions. The four monthly questions are as follows:

- We consider our present business (sales) position to be:
 - good
 - satisfactory (normal for the season)
 - bad
- We consider our present stock to be:
 - too small
 - adequate (normal for the season)
 - too large
- We expect that our orders placed with suppliers during the next (three) months, excluding purely seasonal variations, will be:
 - up
 - unchanged
 - down
- Our business trend over the next six months, excluding purely seasonal variations, will:
 - improve

remain unchanged
deteriorate

In addition to these questions, there is a quarterly question:

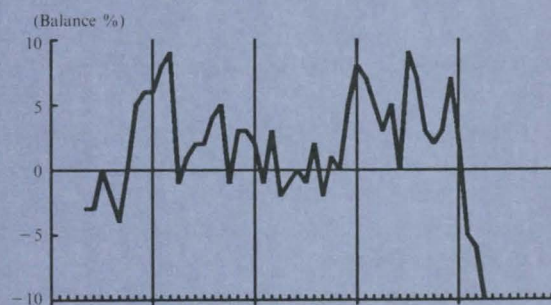
- In the next (three) months, and compared with today, the number of persons we employ will:
 - increase
 - remain unchanged
 - decline

4. General assessment and prospects

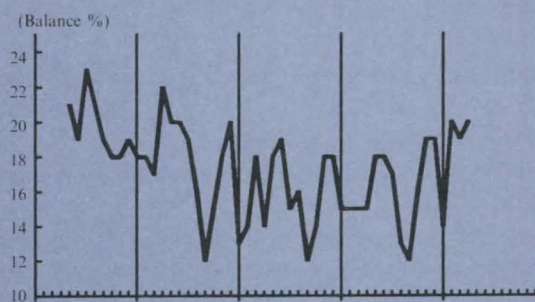
As already pointed out, this survey represents a first look at part of the tertiary sector.

The results achieved have been very positive (*see Graphs 12, 13 and 14*). The survey provides an excellent picture of the trend in consumption by product groups. It also shows how fluctuations in consumption are transmitted to the producing industries and thus makes it easier to identify turning points. Further progress might be sought by extending the survey to all member countries.

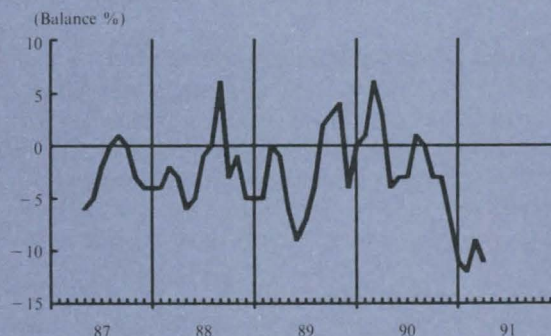
GRAPH 12: Retail trade survey
Present business situation



GRAPH 13: Retail trade
Volume of stocks



GRAPH 14: Retail trade survey
Intentions of placing orders



The harmonized consumer survey

1. Origins

The Commission of the European Communities launched the first harmonized consumer survey in May 1972, following a decision by the Permanent Representatives Committee on 15 September 1970. The questionnaire used was the result of experiments carried out in France and the Federal Republic of Germany and the work of Professor Katona and economists at the University of Michigan on the significance of consumers' subjective assessments of the economic and social trend.

Five countries originally took part in the survey (Belgium, the Federal Republic of Germany, France, Italy and the Netherlands). New Member States joined the harmonized survey a few months after their accession to the Community. Thus, Denmark has taken part since January 1974, Ireland and the UK since May 1974, Greece since January 1982, and Spain and Portugal since June 1986.

The survey was initially conducted three times a year. In November 1979, the Federal Republic of Germany and the UK increased the frequency of their surveys to one a month. This frequency was gradually extended to the other Member States. Since July 1986 the Commission has received monthly results for all the Member States (except Luxembourg, which does not take part in the survey).

2. General method employed

The survey is conducted in each country on the basis of a sample of some 2 000 households (except in Ireland where a sample of 1 250 households is used).

Experience shows that a sample of that size is quite large enough to produce reliable information on consumer behaviour and on consumption and saving expectations.

Survey methods vary from one country to another. The main techniques used are as follows:

- (i) on-the-spot interviews conducted among a sample drawn at random;
- (ii) the use of quotas (generally to determine who should be interviewed within a randomly selected household);
- (iii) telephone interviews, a method which is becoming more widespread.

Details of the method employed by each Member State are given in Table 7.

In practice¹ all of these methods give satisfactory results if data are carefully collected. They are also effective in tracking the trend in consumer behaviour.

This is evidenced by experiments carried out in several Member States involving splitting the consumer survey sample in two and conducting one half of the survey by telephone and the other half by direct interview. The results obtained from the two sub-samples were systematically compared with each other. Three lessons could be drawn concerning the impact of method on the consumer survey results:

- A high degree of representativeness can be obtained with the telephone survey sample. It is true that some people do not have a telephone or are ex-directory. Consequently, very-low-income households, single people without an occupational activity and very young people will be less well covered in a telephone survey. However, it has been seen that the *ex-post* adjustments which must be made to allow for such under-representation are minor

and only marginally affect the results. Moreover, response rates are altogether satisfactory provided a proportion of telephone interviews are conducted outside normal office hours. This is because it is in the evening that success rates are highest.

- Answers given over the telephone are every bit as firm and well considered as those given face-to-face to an interviewer. No particular problem of volatility has been observed. Most respondents maintain the same opinion over a short period; only a small minority change opinion every month in an apparently inconsistent manner. For a large majority of respondents, changes in opinion between two successive surveys are likely and plausible.
- In the case of some questions, there may be a small and very stable difference in level between the results of a telephone survey and those of a survey conducted face-to-face. This probably reflects the specific characteristics of interviewing by telephone, i.e. its speed and impersonal nature. The respondent may be more inclined in a telephone interview to express pessimism about his own situation and optimism about that of others without being afraid of shocking an interviewer sitting opposite him, as might be the case with a survey conducted on the basis of on-the-spot interviews. This does not cause any problems for using the results because in a survey of trends it is the change in replies from one survey to another which is important rather than the absolute level of replies; there might merely be a minor problem of linkage of the series of results if a switch is made from one type of survey to the other.

The harmonized consumer survey is conducted on the Commission's behalf at national level by the following bodies:

Belgium

Dimarso (Gallup Belgium)
78 boulevard Lambermont
B-1030 Brussels

Denmark

Danmarks Statistik (DS)
Sejrogade, 11 — Postbus 2550
DK-2100 Copenhagen

Germany

GfK — Marktforschung GmbH
Postfach 2854
Nordwestring 101
D-8500 Nuremberg 90

Greece

National Statistical Service of Greece (NSS)
14-16, Lycourgou Street
GR-Athens 112

Spain

Intergallup
Paseo de la Castellana 72-1º
E-28046 Madrid

France

Institut National de la Statistique et des Etudes Economiques (Insee)
18 boulevard A. Pinard
F-75675 Paris Cedex 14

Ireland

Teagasc
(The Agriculture and Food Development Authority)
19, Sandymount Avenue
Dublin 4
Ireland

¹ In theory the method involving on-the-spot interviews among a sample of households selected at random from an exhaustive sampling frame is the one which offers the best guarantee of reliability (no bias). It is, however, a costly method, and requires a good sampling frame.

Italy

Istituto Nazionale per lo Studio della Cogiuntura (ISCO)
Via Palermo, 20
I-00184 Rome

The Netherlands

Centraal Bureau voor de Statistiek (CBS)
Prinses Beatrixlaan, 428 — Postbus 959
Voorburg 2270 AZ
The Netherlands

Portugal

Norma, SARL
Av. 5 de Outubro 122
P-1000 Lisbon

United Kingdom

Social Surveys (Gallup Poll) Ltd
307 Finchley Road
London NW3 6EH
United Kingdom

3. The questionnaire

Conceived to gauge consumer behaviour as accurately as possible, the questionnaire is built around four main themes: the opinion of households on the general economic situation as it affects consumption and savings; their opinion on their personal financial situation and their capacity to save; intentions with regard to the purchase of consumer durables; housing intentions.

Apart from the usual questions intended to categorize the respondent and the household to which he belongs, the questionnaire is made up of 12 monthly questions with four to six reply options.

Q1 SFAD How does the financial situation of your household now compare with what it was 12 months ago?

- ++ 1 — got a lot better
- + 2 — got a little better
- = 3 — stayed the same
- 4 — got a little worse
- 5 — got a lot worse
- NSP 6 — don't know

Q2 SFAP How do you think the financial position of your household will change over the next 12 months?

- ++ 1 — get a lot better
- + 2 — get a little better
- = 3 — stay the same
- 4 — get a little worse
- 5 — get a lot worse
- NSP 6 — don't know

Q3 SEAD How do you think the general economic situation in this country has changed over the last 12 months?

- ++ 1 — got a lot better
- + 2 — got a little better
- = 3 — stayed the same
- 4 — got a little worse
- 5 — got a lot worse
- NSP 6 — don't know

Q4 SEAP How do you think the general economic situation in this country will develop over the next 12 months?

- ++ 1 — get a lot better
- + 2 — get a little better
- = 3 — stay the same
- 4 — get a little worse
- 5 — get a lot worse
- NSP 6 — don't know

Q5 PRAD Compared with what it was 12 months ago, do you think the cost of living is now:

- ++ 1 — very much higher?
- + 2 — quite a bit higher?
- = 3 — a little higher?
- 4 — about the same?
- 5 — lower?
- NSP 6 — don't know

Q6 PRAP By comparison with what is happening now, do you think that in the next 12 months:

- ++ 1 — there will be a more rapid increase in prices?
- + 2 — prices will increase at the same rate?
- = 3 — prices will increase at a slower rate?
- 4 — prices will stay about the same?
- 5 — prices will fall slightly?
- NSP 6 — don't know

Q7 CHOM How do you think the level of unemployment in the country will change over the next 12 months? Will it

- ++ 1 — increase sharply?
- + 2 — increase slightly?
- = 3 — remain the same?
- 4 — fall slightly?
- 5 — fall sharply?
- NSP 6 — don't know

Q8 ACHT Do you think that there is an advantage for people to make major purchases (furniture, washing machines, TV sets etc.) at the present time?

- ++ 1 — yes, now is the right time
- = 2 — it is neither the right time nor the wrong time
- 3 — no, it is the wrong time, the purchase should be postponed
- NSP 4 — don't know

Q9 AEQD Over the next 12 months, how do you think the amount of money you will spend on major purchases will compare with what you spent over the last 12 months? Will it be:

- ++ 1 — much more?
- + 2 — a little more?
- = 3 — about the same?
- 4 — a little less?
- 5 — much less?
- NSP 6 — don't know

Q10 EPAR In view of the general economic situation, do you think this is:

- ++ 1 — a very good time to save?
- + 2 — quite a good time to save?
- 3 — rather an unfavourable time to save?
- 4 — a very unfavourable time to save?
- NSP 5 — don't know

Q11 EPAP Over the next 12 months, how likely are you to be able to save any money?

- ++ 1 — very likely
- + 2 — fairly likely
- 3 — fairly unlikely
- 4 — very unlikely
- NSP 5 — don't know

Q12 SFAC Which of these statements best describes the present financial situation of your household?

- 1 — we are running into debt
- 2 — we are having to draw on our savings
- = 3 — we are just managing to make ends meet on our income
- + 4 — we are saving a little
- ++ 5 — we are saving a lot
- NSP 6 — don't know

The following questions are included in the questionnaire once a quarter (January, April, June and October):

Q13 IAUT How likely are you to buy a car within the next 2 years?

- ++ 1 — very likely
- + 2 — fairly likely
- 3 — fairly unlikely
- 4 — very unlikely
- NSP 5 — don't know

Q14 ILOG Are you planning to purchase or build a home within the next 2 years (to live in yourself, for a member of your family, as a holiday home, to let etc.)?

- ++ 1 — yes, definitely
- + 2 — possibly
- 3 — probably not
- 4 — no
- NSP 5 — don't know

Q15 IEQL Over the next 12 months, how likely are you to spend any large sums of money on home improvements such as central heating, sanitary ware etc.?

- ++ 1 — very likely
- + 2 — fairly likely
- 3 — fairly unlikely
- 4 — very unlikely
- NSP 5 — don't know

All these questions are currently asked in all Community Member States. Some institutes have retained in their questionnaires a slightly different wording to that of the harmonized version, particularly as regards the time horizon of forecasts. These differences, which are a legacy from former practices, are minor and do not compromise the comparability of results between the various countries.

4. General assessment and prospects

The harmonized consumer survey is an instrument which has reached maturity, as illustrated by the following.

- The standardization of procedures between the Member States is seen to be satisfactory.
- The switch to a monthly frequency has been successful. The technical problems it gave rise to in some countries have been solved. The availability of more frequent information makes it easier to identify the phases of cycles and judge consumer reactions to unexpected events. The importance of this aspect was highlighted in 1987 when it was possible to observe the changes — or rather the lack of changes — in the behaviour of households following the stock market crash.
- The survey's results (*see Graphs 15, 16 and 17*), as aggregated in the consumer confidence indicator, are well correlated with private consumption in the Community. They are also used in most Member States to assess the consumption trend (*see Table 6*).
- Opinion on the past price trend exactly matches the 12-month rate of increase in retail prices in the Community, thus demonstrating the survey's quality. Taking the month-to-month movement, consumer opinion on the expected price trend (*Graph 18*) acts as an advance indicator. For example, the trough of opinion is situated some three months ahead of the low point of inflation at the end of 1986, the only turning point currently available. The survey's unemployment indicator is linked to the change in unemployment over a 12-month period in the Community. Questions on unemployment and prices are not only included in the consumer survey for the purposes of obtaining indications on these variables. They are also intended as a means of detecting sharp changes in the expectations of households, which might have repercussions for consumption and saving behaviour.

Overall, the harmonized survey is a robust tool which allows an accurate assessment to be made of consumer behaviour in the Community. The future might bring shifts in the area of savings, where a number of innovations have been introduced in recent years leading to changes in consumer attitudes.

TABLE 6: Uses to which the consumer survey is put in the Member States

| Country | Results published | Used in forecasting | | Used in | |
|------------|-------------------|---------------------|-------------------|----------------------|----------------------|
| | | private consumption | the savings ratio | a cyclical indicator | an economic equation |
| B | | | | | |
| DK | X | | | X | |
| D | X | | | X | |
| GR | | | | | |
| E | X | | | | |
| FR | X | X | | | X |
| IRL | X | X ¹ | X ¹ | | |
| I | X | X | | X ² | |
| NL | X | | | X | |
| P | | | | | |
| UK | X | | | | |

¹ Used by bodies other than the body which carries out the survey.

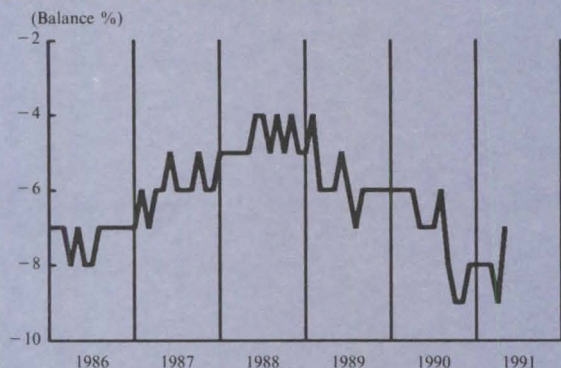
² Two cyclical indicators are established, one relating to the general climate and the other to personal intentions.

TABLE 7: Survey methods employed in each Member State

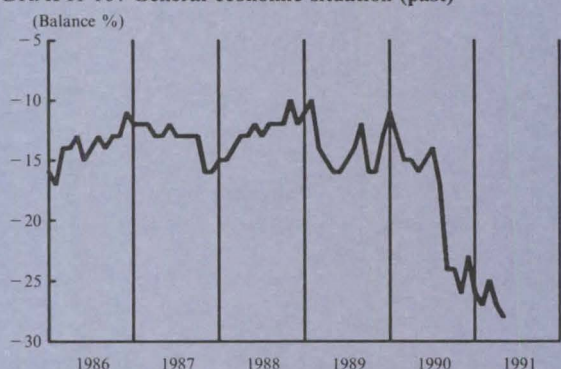
| Country | Type of survey | Sample size | Response rate | Sampling method | Weightings |
|------------|------------------------|---|--------------------------|--|--|
| B | on-the-spot interviews | 2 000 | — | random selection of sample points, then selection by quotas | — |
| DK | telephone interviews | 1 800 or 2 000 depending on the survey date | 65 %—75 % | simple random sampling among the population aged 16 years or over | criteria: sex, age, urbanization, marital status and type of housing; corrects bias due to non-replies |
| D | on-the-spot interviews | 2 000 | 80 % | quotas | criteria: age, sex, size of household, job of the head of household, size of the town, region |
| GR | on-the-spot interviews | 1 850 | — | stratified multistage random sampling; sampling fraction: 0.62/100 | — |
| E | on-the-spot interviews | 2 000 | 96 % | random sampling of households; quotas for selecting who in the household should be interviewed | criteria: region, type of housing, sex, age |
| F | telephone interviews | 3 300 | 60 % (2 000 respondents) | simple random sampling from electronic directory | criteria: age, size of household, job of the head of the household, income, type of municipality, region |
| IRL | on-the-spot interviews | 1 680 | 75 % (1 250 replies) | stratified random sampling (30 survey areas covering the country) | — |
| I | on-the-spot interviews | 2 000 | 100 % | three-stage random sampling | criteria: municipality, household, sex, age, job of the head of the family |
| NL | telephone interviews | 2 000 | 70 % | two-stage random sampling (municipality, addresses) | — |
| P | on-the-spot interviews | 2 000 | 90 % | multi-stage random sampling + quotas for selecting who in the household should be interviewed | — |
| UK | on-the-spot interviews | 2 000 | — | quotas | criteria: sex, age, job, class, region |

GRAPHS 15-18: Consumer survey

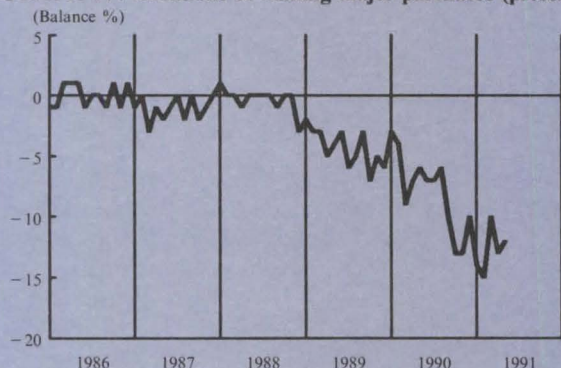
GRAPH 15: Past financial situation



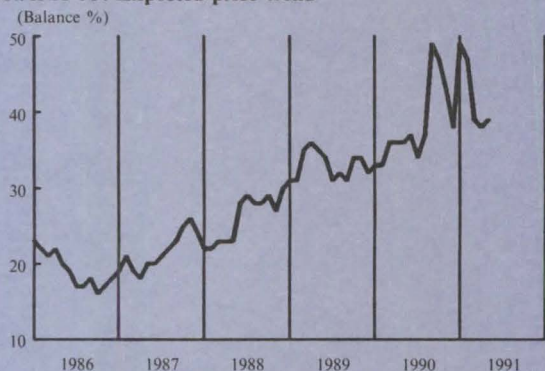
GRAPH 16: General economic situation (past)



GRAPH 17: Intentions of making major purchases (present)



GRAPH 18: Expected price trend



Business surveys and the service sector

1. Usefulness of a services survey

The development of business surveys in the service sector is of great interest for several reasons:

- the concern for exhaustiveness, i.e. coverage of all economic activities;
- the growing contribution of services to GNP and employment;
- the existence of trends in activity specific to services, and different to those in industry.

The Community's retail trade surveys are an interesting experience in this context because the nature of the firms covered is similar to that of firms elsewhere in the service sector. They demonstrate the feasibility of surveys in the sector and the possibility of obtaining useful results for economic analysis.

2. The existing surveys

There is a Community survey on road haulage administered by the Directorate-General for Transport. This is conducted on a quarterly basis. It comprises questions on the current situation and on international traffic between the Member States:

- recent activity trend,
- expected activity trend,
- recent employment trend (drivers),
- recent investment trend (purchase of vehicles),
- future investment trend,
- current liquidity position,
- difficulties in recruiting drivers,
- vehicle fleet utilization rate,
- past and expected trend of traffic between the country of origin and each of the Member States.

The results of this survey are published by the Directorate-General for Transport in the magazine *Europa Transport* (see Graphs 19, 20 and 21).

Business surveys have for several years also been conducted in some service industries in several Member States, for example:

- the IFO (Munich) and the Belgian National Bank conduct quarterly surveys among architects,
- Insee (Paris) conducts a quarterly survey covering most business services and some household services.

It has therefore been necessary to define the framework for possible harmonization. This was done at the meeting of the working party on business surveys in June 1990.

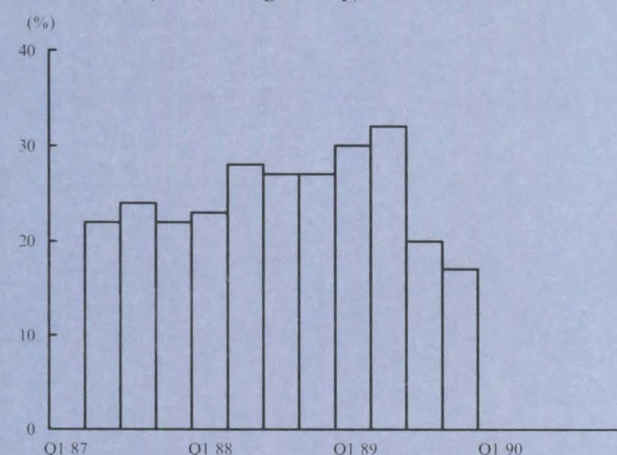
3. The framework for harmonizing the business surveys in the service sector

The surveys in question will be quarterly. Priority will be given to the business service industries (Headings 71, 72 and 74 of the NACE nomenclature).

The 10 questions chosen relate to:

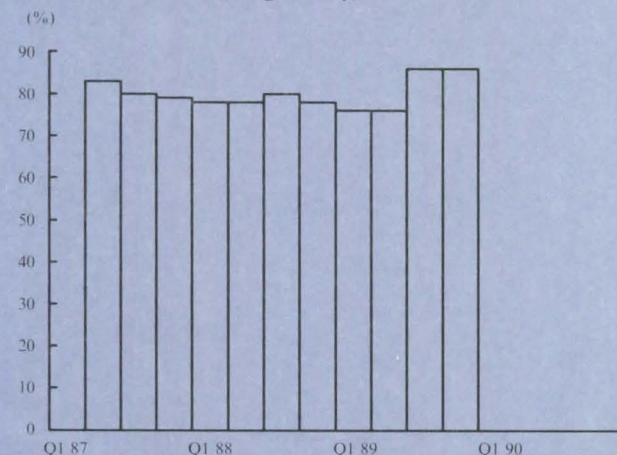
- the general climate,
- the recent turnover trend,
- the expected turnover trend,
- the recent demand trend,
- the expected demand trend,

GRAPH 19: Employment trend (drivers)
(Road haulage survey)



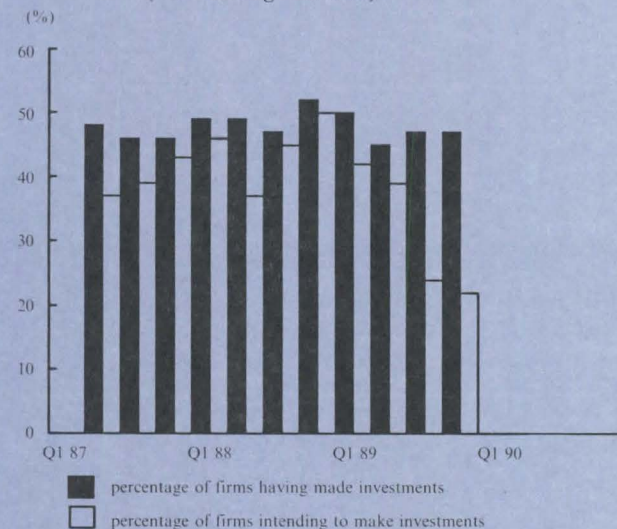
% of firms indicating an increase in the number of drivers

GRAPH 20: Liquidity position trend
(Road haulage survey)



% of firms indicating a good or normal liquidity position

GRAPH 21: Investment trend
(Road haulage business)



■ percentage of firms having made investments
□ percentage of firms intending to make investments

the recent employment trend,
the expected employment trend,
the recent selling price trend,
the expected selling price trend,
the obstacles to activity.

This quarterly questionnaire might be supplemented by an additional questionnaire dealing with subjects such as investment, staff qualifications and recruitment difficulties.

Ad hoc surveys

1. The general principles of the ad hoc surveys

Ad hoc surveys are brief surveys on a specific subject which are conducted occasionally (about once a year) to supplement the regular business surveys. They were first introduced in 1985 as the Commission was anxious to investigate which measures would be most suitable for achieving balanced and job-creating growth and reflected recognition of the important role which expectations play in determining growth, investment and recruitment.

The system of harmonized business surveys provides good support for these special surveys:

- it allows a satisfactory response rate to be obtained thanks to the links of trust which exist between firms and the national bodies responsible for conducting the surveys,
- it provides a basis for interpreting the *ad hoc* surveys in the light of the response behaviour observed for the business surveys.

Experience has shown that these *ad hoc* surveys are a perfectly valid source of information, and they are likely to be continued.

2. The types of ad hoc surveys conducted since 1985

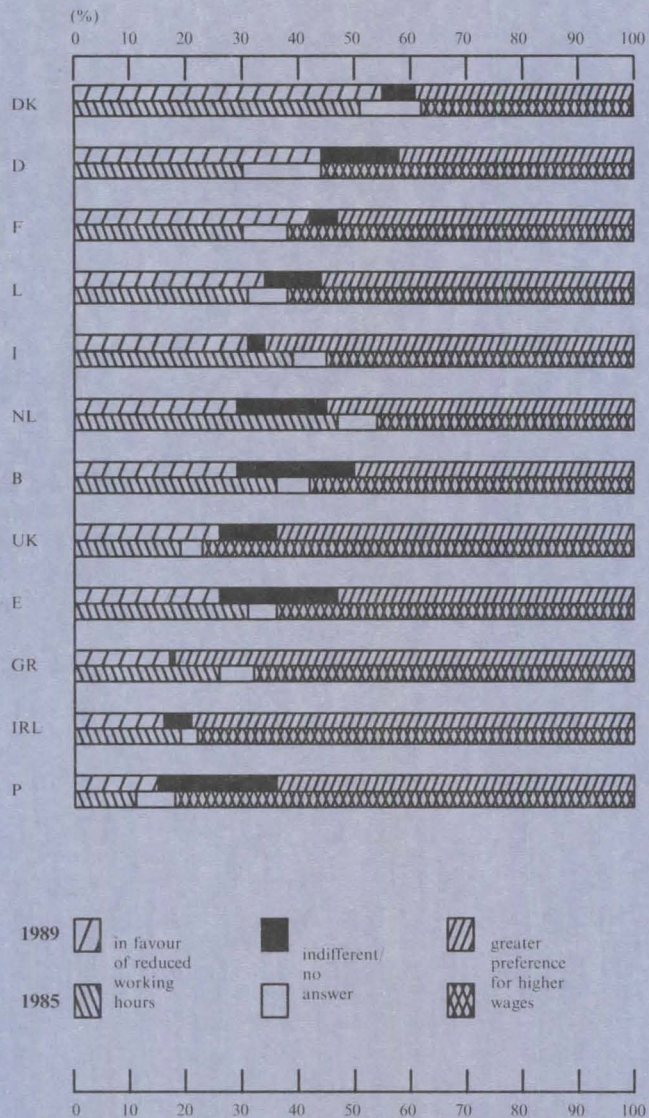
The first *ad hoc* survey was concerned with the attitudes of employees and employers to the introduction of greater flexibility. This survey showed, for example, that a majority of workers preferred a wage increase to a reduction in working hours, although a fair proportion (16 %) of full-time employees were interested in a substantial reduction in working hours even if it meant a slight drop in wages. This survey was repeated in 1989, thus enabling an interesting comparison to be made of the change in workers' opinions from one country to the next (see graph 22).

The factors influencing investment have become a major concern of economic policy. An *ad hoc* survey was conducted on this subject in 1987, and has regularly been repeated since.

The effects of completion of the internal market have been dealt with by several *ad hoc* surveys: these have shown that industrialists expect very positive effects, more than offsetting the disadvantages linked to the adjustments they are required to make.

Another very interesting subject is job creation. The *ad hoc* surveys conducted in 1989 clearly identified the obstacles to recruitment in each sector (see Graph 23 concerning the retail trade).

GRAPH 22: Worker attitudes to a reduction in working hours



GRAPH 23: Reasons for not employing more staff in the retail trade

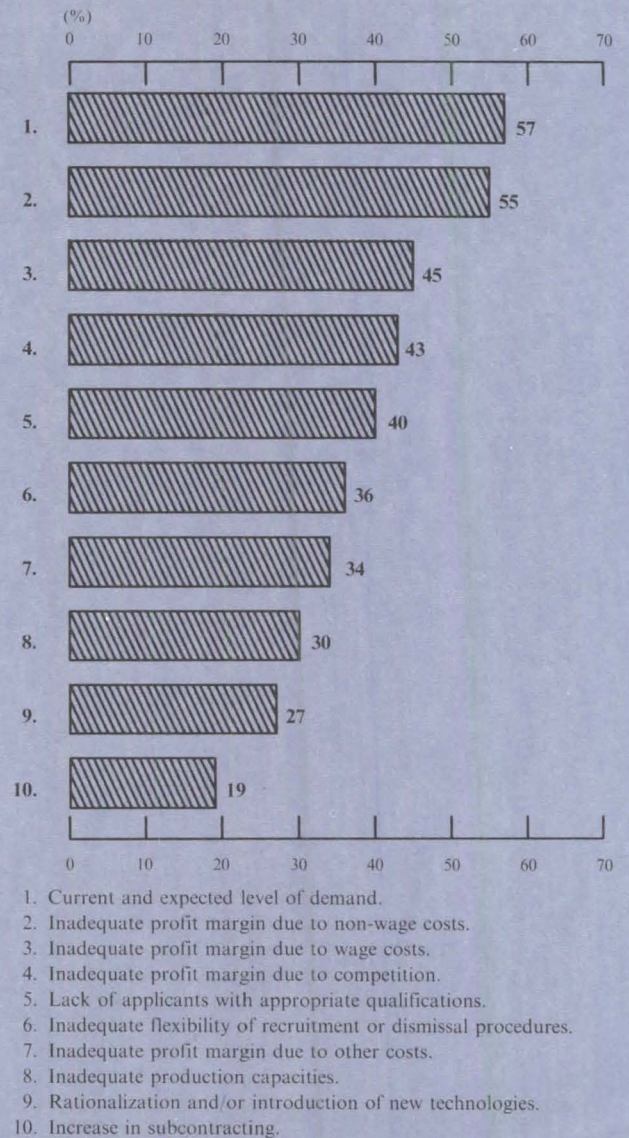


TABLE 8: Indicators of output and economic sentiment

| | | | Ranges | | | | 1990 | 1990 | 1991 | | | 1991 | | | | | |
|-----|--------------------------------------|------------|-----------------|-------------------|-----------------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| | | | Peak 1972/73 | Trough 1974/75 | Peak 1979/80 | Trough 1981/83 | | | IV | I | II | Jan. | Feb. | March | April | May | June |
| B | gross domestic product | 1985 = 100 | : | : | : | : | : | : | : | : | : | : | : | : | : | : | |
| | index of industrial production | | : | : | : | : | 117,7 | 117,9 | : | : | 115,3 | : | : | : | : | : | |
| | 1. industrial confidence indicator | | 19 | -56 | -4 | -35 | -3 | -8 | -14 | -15 | -11 | -15 | -17 | -15 | -13 | -17 | |
| | 2. construction confidence indicator | | 9 | -36 | -7 | -65 | -3 | -9 | -8 | -6 | -11 | -9 | -5 | -5 | -7 | -6 | |
| | 3. consumer confidence indicator | | 7 | -18 | -7 | -31 | -1 | -8 | -12 | -7 | -13 | -15 | -7 | -6 | -7 | -7 | |
| | 4. share-price index (c) | | : | : | : | : | 184,6 | 166,1 | 174,8 | 188,1 | 156,7 | 180,8 | 186,8 | 191,1 | 186,8 | 186,5 | |
| | = 5. economic sentiment indicator | | 109,0 | 98,9 | 103,9 | 96,8 | 105,1 | 102,8 | 101,9 | 103,1 | 101,6 | 101,2 | 102,8 | 103,3 | 103,1 | 103,0 | |
| DK | gross domestic product | 1985 = 100 | : | : | : | : | : | : | : | : | : | : | : | : | : | : | |
| | index of industrial production | | : | : | : | : | 108,1 | 107,9 | 108,3 | : | 111,5 | 108,6 | 104,9 | 112,0 | : | : | |
| | 1. industrial confidence indicator | | : | : | : | -22 | -2 | -7 | -7 | -9 | -7 | (-7) | (-7) | -9 | (-9) | (-9) | |
| | 2. construction confidence indicator | | : | : | : | -37 | -24 | -30 | -29 | -27 | -29 | (-29) | (-29) | -27 | (-27) | (-27) | |
| | 3. consumer confidence indicator | | : | -16 | 5 | -22 | -8 | -9 | -3 | -3 | -4 | -6 | 0 | -2 | -5 | -2 | |
| | 4. share-price index (c) | | : | : | : | : | 146,1 | 139,2 | 147,2 | 153,6 | 140,2 | 149,9 | 151,5 | 150,5 | 152,9 | 157,5 | |
| | = 5. economic sentiment indicator | | : | : | : | : | 97,7 | 96,9 | 97,0 | : | 96,9 | 97,0 | 97,0 | 96,9 | 96,8 | : | |
| D | gross domestic product | 1985 = 100 | : | : | : | : | 117,0 | 118,0 | : | : | : | : | : | : | : | : | |
| | index of industrial production | | : | : | : | : | 117,9 | 120,7 | 121,6 | : | 122,7 | 121,1 | 121,1 | 122,4 | : | : | |
| | 1. industrial confidence indicator | | 10 | -49 | 2 | -40 | 8 | 10 | 8 | 3 | 9 | 9 | 7 | 4 | 3 | 1 | |
| | 2. construction confidence indicator | | -4 | -72 | 11 | -64 | -1 | 0 | 1 | -4 | 3 | -1 | 0 | -1 | -4 | -6 | |
| | 3. consumer confidence indicator | | : | -22 | 9 | -31 | 1 | -4 | -7 | -9 | -6 | -7 | -9 | -8 | -8 | -10 | |
| | 4. share-price index (c) | | : | : | : | : | 156,0 | 135,4 | 135,8 | 147,6 | 128,0 | 137,7 | 141,8 | 145,0 | 147,2 | 150,7 | |
| | = 5. economic sentiment indicator | | 103,8 | 97,0 | 103,6 | 94,7 | 103,2 | 102,3 | 101,7 | 101,1 | 101,8 | 101,8 | 101,5 | 101,3 | 101,2 | 100,8 | |
| F | gross domestic product | 1985 = 100 | : | : | : | : | 116,0 | 116,7 | : | : | : | : | : | : | : | : | |
| | index of industrial production | | : | : | : | : | 112,5 | 112,2 | 112,6 | : | 114,3 | 113,5 | 110,0 | 111,9 | : | : | |
| | 1. industrial confidence indicator | | 29 | -49 | 5 | -39 | -8 | -18 | -21 | -21 | -19 | -21 | -22 | -23 | -21 | -18 | |
| | 2. construction confidence indicator | | : | : | -17 | -57 | -6 | -8 | -7 | -18 | -7 | -7 | -7 | -18 | -18 | -18 | |
| | 3. consumer confidence indicator | | : | -9 | 3 | -27 | -13 | -17 | -20 | -19 | -23 | -22 | -16 | -18 | -18 | -20 | |
| | 4. share-price index (c) | | : | : | : | : | 223,7 | 189,8 | 197,6 | 215,7 | 183,5 | 195,0 | 214,3 | 214,2 | 217,3 | 215,6 | |
| | = 5. economic sentiment indicator | | 107,8 | 97,6 | 101,8 | 95,1 | 103,6 | 101,7 | 101,1 | 100,9 | 100,7 | 100,8 | 101,7 | 101,1 | 101,0 | 100,7 | |
| IRL | gross domestic product | 1985 = 100 | : | : | : | : | : | : | : | : | : | : | : | : | : | : | |
| | index of industrial production | | : | : | : | : | 144,0 | 146,1 | 148,4 | : | 149,0 | 151,0 | 145,3 | : | : | : | |
| | 1. industrial confidence indicator | | : | -41 | 20 | -40 | 0 | -6 | -11 | -11 | -8 | -13 | -12 | -9 | -13 | -11 | |
| | 2. construction confidence indicator | | : | : | : | -60 | 6 | -18 | -15 | -26 | -15 | (-15) | (-15) | -26 | (-26) | (-26) | |
| | 3. consumer confidence indicator | | : | -41 | 12 | -44 | -7 | -10 | -14 | -14 | -12 | -13 | -17 | -13 | -13 | -17 | |
| | 4. share-price index (c) | | : | : | : | : | 269,2 | 213,4 | 231,3 | 248,3 | 199,0 | 238,6 | 256,3 | 254,7 | 247,2 | 243,0 | |
| | = 5. economic sentiment indicator | | 109,1 | 96,7 | 103,6 | 98,1 | 103,6 | 102,2 | 101,6 | 101,4 | 101,7 | 101,7 | 101,3 | 101,7 | 101,5 | 100,9 | |
| I | gross domestic product | 1985 = 100 | : | : | : | : | : | : | : | : | : | : | : | : | : | : | |
| | index of industrial production | | : | : | : | : | 117,8 | 115,9 | 116,5 | : | 117,2 | 115,9 | 116,5 | 112,6 | : | : | |
| | 1. industrial confidence indicator | | 31 | -59 | 13 | -41 | -1 | -8 | -14 | -11 | -12 | -14 | -15 | -11 | -11 | -12 | |
| | 2. construction confidence indicator | | -8 | -56 | -5 | -51 | 6 | -7 | 4 | -10 | -6 | 7 | 10 | -5 | -14 | -10 | |
| | 3. consumer confidence indicator | | : | : | : | : | -6 | -13 | -14 | -12 | -14 | -17 | -10 | -11 | -12 | -12 | |
| | 4. share-price index (c) | | : | : | : | : | 194,3 | 150,9 | 161,0 | 161,6 | 172,2 | 151,0 | 159,8 | 162,4 | 157,5 | 165,0 | |
| | = 5. economic sentiment indicator | | 103,8 | 97,4 | 101,6 | 97,6 | 102,2 | 100,3 | 100,3 | 100,5 | 100,3 | 99,7 | 100,9 | 100,7 | 100,4 | 100,5 | |
| NL | gross domestic product | 1985 = 100 | : | : | : | : | : | : | : | : | : | : | : | : | : | : | |
| | index of industrial production | | : | : | : | : | 108,6 | 112,2 | 113,8 | : | 113,7 | 119,9 | 107,8 | : | : | : | |
| | 1. industrial confidence indicator | | 12 | -44 | 4 | -31 | 0 | -2 | -3 | -5 | -2 | -4 | -3 | -6 | -5 | -5 | |
| | 2. construction confidence indicator | | 3 | -47 | 3 | -46 | -1 | 1 | -2 | -6 | -1 | -2 | -4 | -4 | -7 | -8 | |
| | 3. consumer confidence indicator | | 6 | -15 | 5 | -37 | 3 | -4 | -8 | -8 | -8 | -11 | -6 | -9 | -6 | -8 | |
| | 4. share-price index (c) | | : | : | : | : | 131,1 | 119,8 | 125,1 | 142,1 | 117,5 | 124,0 | 133,9 | 140,6 | 141,3 | 144,3 | |
| | = 5. economic sentiment indicator | | 107,8 | 100,7 | 105,3 | 97,1 | 101,3 | 99,8 | 99,1 | 99,0 | 99,1 | 98,8 | 99,5 | 98,9 | 99,2 | 98,8 | |
| UK | gross domestic product | 1985 = 100 | : | : | : | : | 116,0 | 114,4 | : | : | : | : | : | : | : | : | |
| | index of industrial production | | : | : | : | : | 109,1 | 106,5 | 106,4 | : | 105,2 | 106,9 | 107,0 | 104,1 | : | : | |
| | 1. industrial confidence indicator | | : | : | 9 | -60 | -18 | -29 | -36 | -35 | -31 | -40 | -37 | -32 | -38 | -35 | |
| | 2. construction confidence indicator | | : | : | 7 | -62 | -28 | -55 | -69 | -78 | -69 | (-69) | (-69) | -78 | (-78) | (-78) | |
| | 3. consumer confidence indicator | | : | -33 | 14 | -26 | -26 | -23 | -22 | -19 | -24 | -25 | -17 | -18 | -19 | -20 | |
| | 4. share-price index (c) | | : | : | : | : | 173,3 | 162,8 | 174,8 | 193,1 | 161,1 | 174,1 | 189,1 | 194,0 | 192,4 | 192,8 | |
| | = 5. economic sentiment indicator | | 103,8 | 97,7 | 104,9 | 98,8 | 98,3 | 96,9 | 96,3 | 96,5 | 96,4 | 95,9 | 97,7 | 96,8 | 96,3 | 96,4 | |
| EUR | gross domestic product (a)(b) | 1985 = 100 | : | : | : | : | : | : | : | : | : | : | : | : | : | : | |
| | index of industrial production | | : | : | : | : | 114,5 | 114,5 | 114,7 | : | 115,8 | 115,3 | 112,9 | 113,7 | : | : | |
| | 1. industrial confidence indicator | | 16 | -49 | 3 | -36 | -3 | -9 | -13 | -14 | -11 | -14 | -14 | -14 | -15 | -15 | |
| | 2. construction confidence indicator | | : | : | -1 | -50 | -6 | -14 | -13 | -22 | -15 | -13 | -12 | -20 | -23 | -23 | |
| | 3. consumer confidence indicator | | 5 | -17 | 1 | -22 | -9 | -12 | -14 | 12 | -15 | -15 | -11 | -12 | -12 | -13 | |
| | 4. share-price index (c) | | : | : | : | : | 174,8 | 156,5 | 164,4 | 179,3 | 153,7 | 164,0 | 175,5 | 179,0 | 178,5 | 180,4 | |
| | = 5. economic sentiment indicator | | 107,5 | 96,6 | 104,1 | 97,4 | 102,5 | 100,6 | 100,1 | 100,1 | 99,8 | 99,8 | 100,7 | 100,3 | 100,0 | 99,9 | |

(a) Weighted total of quarterly figures for the Federal Republic of Germany, France, Italy, the Netherlands and the UK.

(b) For the Federal Republic of Germany, gross national product for quarterly data.

(c) Not seasonally adjusted.

TABLE 9: **Monthly survey of manufacturing industry** — Monthly questions and the composite industrial confidence indicator
Balances: i.e. differences between the percentages of respondents giving positive and negative replies (s.a.)

| | | Ranges | | | | 1990 | 1990 | 1991 | 1991 | 1991 | 1991 | 1991 | 1991 | 1991 | 1991 |
|---------------------------------------|-----|-----------------|-------------------|-----------------|-------------------|------|------|------|------|------|------|-------|-------|------|------|
| | | Peak 1972/73 | Trough 1974/75 | Peak 1979/80 | Trough 1981/83 | | IV | I | II | Jan. | Feb. | March | April | May | June |
| INDUSTRIAL CONFIDENCE INDICATOR | B | 19 | -56 | -4 | -35 | -3 | -8 | -14 | -15 | -11 | -15 | -17 | -15 | -13 | -17 |
| | DK | : | : | : | -22 | -2 | -7 | -7 | -9 | -7 | : | : | -9 | : | : |
| | D | 10 | -49 | 2 | -40 | 8 | 10 | 8 | 3 | 9 | 9 | 7 | 4 | 3 | 1 |
| | GR | : | : | : | : | -2 | -2 | -10 | -9 | -8 | -11 | -10 | -10 | -10 | -6 |
| | E | : | : | : | : | -14 | -19 | -22 | 0 | -20 | -23 | -24 | -23 | -21 | -23 |
| | F | 29 | -49 | 5 | -39 | -8 | -18 | -21 | -21 | -19 | -21 | -22 | -23 | -21 | -18 |
| | IRL | : | -41 | 20 | -40 | 0 | -6 | -11 | -11 | -8 | -13 | -12 | -9 | -13 | -11 |
| | I | 31 | -59 | 13 | -41 | -1 | -8 | -14 | -11 | -12 | -14 | -15 | -11 | -11 | -12 |
| | L | : | : | 16 | -65 | -4 | -1 | -6 | -28 | -6 | -4 | -8 | -27 | -30 | -28 |
| | NL | 12 | -44 | 4 | -31 | 0 | -2 | -3 | -5 | -2 | -4 | -3 | -6 | -5 | -5 |
| | P | : | : | 11 | -25 | -5 | -6 | -8 | -8 | -6 | -9 | -8 | -9 | -8 | -6 |
| | UK | : | : | 9 | -60 | -18 | -29 | -36 | -35 | -31 | -40 | -37 | -32 | -38 | -35 |
| EUR | | 16 | -49 | 3 | -36 | -3 | -9 | -13 | -14 | -11 | -14 | -14 | -14 | -15 | -15 |
| PRODUCTION EXPECTATIONS | B | 31 | -56 | -4 | -37 | 0 | -9 | -17 | -10 | -13 | -22 | -15 | -9 | -7 | -14 |
| | DK | : | : | : | -8 | 11 | 6 | 6 | 8 | 6 | : | : | 8 | : | : |
| | D | 17 | -32 | 10 | -30 | 11 | 12 | 9 | 6 | 11 | 10 | 7 | 6 | 6 | 6 |
| | GR | : | : | : | : | 21 | 24 | 7 | 17 | 10 | 3 | 9 | 12 | 16 | 23 |
| | E | : | : | 18 | -20 | 4 | -2 | -5 | 0 | -3 | -9 | -3 | 7 | 1 | -5 |
| | F | 33 | -29 | 18 | -20 | 4 | -7 | -10 | -4 | -3 | -14 | -12 | -9 | -3 | 0 |
| | IRL | : | -21 | 40 | -33 | 14 | 8 | 3 | 4 | 7 | 3 | -2 | 4 | 5 | 3 |
| | I | 40 | -43 | 24 | 26 | 15 | 7 | 4 | 12 | 4 | 2 | 7 | 14 | 13 | 9 |
| | L | 84 | -80 | 40 | -66 | 5 | -1 | -1 | -31 | 5 | 0 | -8 | -28 | -36 | -30 |
| | NL | 26 | -26 | 20 | -13 | 7 | 7 | 3 | 6 | 4 | 1 | 5 | 2 | 8 | 9 |
| | P | : | : | 30 | -13 | 13 | 10 | 8 | 8 | 11 | 3 | 9 | 9 | 9 | 6 |
| | UK | : | : | 29 | -52 | -7 | -20 | -31 | -17 | -25 | -38 | -29 | -12 | -23 | -16 |
| EUR | | 24 | -30 | 15 | -24 | 7 | 0 | -4 | 1 | -1 | -7 | -4 | 1 | 0 | 1 |
| ORDER BOOKS | B | 13 | -74 | -14 | -49 | -6 | -9 | -21 | -27 | -17 | -19 | -26 | -25 | -25 | 31 |
| | DK | : | : | : | -34 | -2 | -12 | -11 | -16 | -11 | : | : | -16 | : | : |
| | D | 5 | -73 | -6 | -59 | 10 | 11 | 7 | -1 | 8 | 9 | 5 | 0 | -1 | -3 |
| | GR | : | : | : | : | -14 | -19 | -24 | -25 | -22 | -24 | -27 | -25 | -26 | -25 |
| | E | 26 | -45 | : | : | -23 | -29 | -38 | 0 | -35 | -35 | -43 | -48 | -40 | -47 |
| | F | 26 | -69 | 0 | -56 | -11 | -25 | -32 | -35 | -32 | -32 | -32 | -35 | -38 | -33 |
| | IRL | : | -68 | 18 | -55 | -9 | -20 | -24 | -27 | -22 | -26 | -23 | -24 | -29 | -27 |
| | I | 30 | -82 | 7 | -66 | -6 | -13 | -28 | -29 | -24 | -27 | -32 | -28 | -30 | -28 |
| | L | : | : | 8 | -70 | -13 | -1 | -13 | -48 | -15 | -10 | -13 | -47 | -48 | -48 |
| | NL | 7 | -48 | -5 | -42 | -4 | -6 | -7 | -13 | -6 | -7 | -8 | -11 | -14 | -13 |
| | P | : | : | 3 | -35 | -14 | -15 | -17 | -21 | -13 | -17 | -20 | -22 | -22 | -19 |
| | UK | : | : | -2 | -85 | -30 | -44 | -52 | -59 | -45 | -55 | -55 | -56 | -62 | -59 |
| EUR | | 15 | -70 | -7 | -56 | -8 | -15 | -23 | -28 | -20 | -23 | -26 | -27 | -29 | -29 |
| EXPORT ORDER BOOKS | B | 15 | -82 | -19 | -55 | -10 | -15 | -26 | -30 | -22 | -25 | -32 | -32 | -29 | -30 |
| | DK | : | : | : | 14 | 6 | -1 | -1 | -4 | -1 | : | : | -4 | : | : |
| | D | : | : | -14 | -50 | -6 | -15 | -22 | -31 | -20 | -22 | -24 | -31 | -31 | -32 |
| | GR | : | : | : | : | -22 | -29 | -27 | -25 | -20 | -26 | -36 | -26 | -24 | -25 |
| | E | : | : | : | : | -27 | -30 | -33 | 0 | -32 | -34 | -33 | -35 | -33 | -31 |
| | F | 24 | -66 | 10 | -52 | -13 | -27 | -34 | -35 | -33 | -33 | -35 | -36 | -37 | -32 |
| | IRL | : | : | : | : | -15 | -29 | -25 | -29 | -26 | -28 | -22 | -33 | -21 | -34 |
| | I | 13 | -67 | -6 | -59 | -15 | -23 | -32 | -34 | -26 | -35 | -34 | -37 | -32 | -33 |
| | L | : | : | 9 | -80 | -33 | -20 | -10 | -48 | -10 | -8 | -11 | -46 | -48 | -50 |
| | NL | : | : | 4 | -35 | -21 | -20 | -21 | -17 | -26 | -18 | -20 | -12 | -20 | -19 |
| | P | : | : | -11 | -72 | -11 | -24 | -35 | -38 | -30 | -35 | -39 | -38 | -41 | -36 |
| | UK | : | : | : | : | : | : | : | : | : | : | : | : | : | : |
| EUR | | : | : | -12 | -50 | -11 | -20 | -28 | -33 | -25 | -29 | -31 | -33 | -34 | -32 |
| STOCKS OF FINISHED PRODUCTS | B | -14 | 37 | 2 | 18 | 4 | 5 | 6 | 8 | 4 | 4 | 9 | 10 | 7 | 6 |
| | DK | : | : | : | 24 | 14 | 14 | 16 | 20 | 16 | : | : | 20 | : | : |
| | D | -7 | 43 | -2 | 31 | -4 | -8 | -8 | -2 | -7 | -9 | -8 | -5 | -3 | 1 |
| | GR | : | : | : | : | 12 | 9 | 12 | 18 | 12 | 11 | 13 | 18 | 19 | 17 |
| | E | -17 | 24 | 15 | 35 | 22 | 25 | 25 | 0 | 22 | 25 | 27 | 28 | 25 | 28 |
| | F | -14 | 50 | 3 | 42 | 15 | 22 | 20 | 22 | 21 | 17 | 21 | 25 | 21 | 20 |
| | IRL | : | 35 | -6 | 33 | 5 | 7 | 13 | 11 | 10 | 16 | 12 | 7 | 16 | 10 |
| | I | -24 | 53 | -8 | 32 | 12 | 17 | 18 | 18 | 17 | 18 | 19 | 20 | 16 | 18 |
| | L | -14 | 74 | 0 | 58 | 3 | 1 | 5 | 6 | 8 | 3 | 4 | 5 | 7 | 7 |
| | NL | -3 | 57 | 3 | 39 | 4 | 5 | 5 | 9 | 4 | 5 | 5 | 8 | 8 | 11 |
| | P | : | : | 1 | 26 | 14 | 13 | 14 | 11 | 15 | 14 | 12 | 15 | 12 | 6 |
| | UK | : | : | -1 | 42 | 17 | 22 | 25 | 29 | 22 | 28 | 26 | 27 | 30 | 30 |
| EUR | | -10 | 48 | -1 | 31 | 9 | 12 | 12 | 15 | 12 | 12 | 13 | 15 | 15 | 16 |
| SELLING-PRICE EXPECTATIONS | B | 64 | -10 | 39 | 12 | 7 | 7 | 6 | 2 | 5 | 6 | 7 | 4 | 3 | -1 |
| | DK | 55 | 4 | 38 | 4 | 16 | 17 | 17 | 15 | 19 | 18 | 14 | 15 | 13 | 17 |
| | GR | : | : | : | : | 31 | 33 | 30 | 31 | 28 | 32 | 31 | 30 | 32 | 32 |
| | E | : | : | : | : | 5 | 6 | 0 | 0 | 3 | -2 | -2 | 2 | 1 | 0 |
| | F | 76 | 15 | 62 | 17 | 16 | 17 | 14 | 9 | 17 | 17 | 9 | 18 | 8 | 2 |
| | IRL | : | 64 | 77 | 20 | 1 | 1 | 2 | -5 | 12 | -2 | -3 | -5 | -6 | -4 |
| | I | 76 | 10 | 87 | 37 | 20 | 18 | 18 | 16 | 21 | 18 | 14 | 19 | 18 | 12 |
| | L | : | -46 | 74 | -38 | -6 | -26 | -31 | -23 | -24 | -31 | -37 | -30 | -41 | 2 |
| | P | : | : | : | : | 21 | 26 | 23 | 19 | 25 | 21 | 22 | 20 | 17 | 20 |
| | UK | : | : | 70 | 7 | 23 | 20 | 9 | 5 | 16 | 6 | 5 | 7 | 3 | 6 |
| EUR | | 64 | 9 | 53 | 22 | 17 | 17 | 13 | 11 | 17 | 13 | 10 | 14 | 10 | 9 |

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