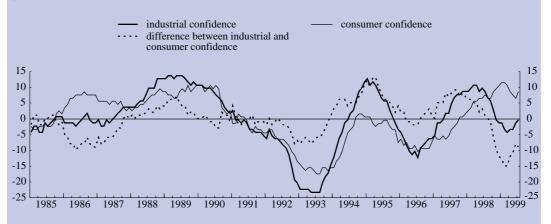
Box 4

Recent developments in industrial and consumer confidence in the euro area

The most remarkable feature of recent developments in survey data has been the divergence between industrial and consumer confidence in the second half of 1998. Both the extent of the difference and the fact that the two indicators moved in opposite directions for several months are unusual from a longer-term perspective (see the chart below). Consumer confidence saw a continuous increase to record high levels, while industrial confidence fell continuously to levels below its long-term average. In earlier periods of divergence movements in consumer confidence have normally followed movements in industrial confidence with only a short lag and differences between the two indicators have mainly arisen as a result of the higher amplitude of the cyclical movements in industrial confidence. When the difference reached its highest point in early 1999, the concern was expressed that consumer confidence would eventually follow the downward path of industrial confidence and fall rapidly to below average levels. This could then have had a negative impact on domestic demand and could thereby have delayed a recovery of industrial confidence. Looking at the latest developments

Industrial and consumer confidence in the euro area

(percentage balances; monthly data)



Source: European Commission Business and Consumer Surveys.

Note: Data shown are calculated as deviations from the average over the period since January 1985.

up to July 1999, industrial confidence returned to its long-term average level and consumer confidence remained fairly close to all-time high levels. While the aforementioned risk to demand and output growth has thus largely diminished, the question remains as to what caused the unusually large and prolonged divergence between the two confidence indicators.

Divergences may be explained in terms of the components of industrial and consumer confidence

Possible causes of divergences between industrial and consumer confidence can be gauged from the respective survey questions underlying these composite indicators. For industrial confidence the three questions relate to production expectations, the assessment of order books and the assessment of stocks of finished products, all of which bear a close relationship to actual production developments. By contrast, the five questions underlying the consumer confidence series cover assessments of a more general nature. Correlation analysis shows that households' assessments of their financial situation in the past and in the future more strongly reflect employment growth, which is a major determinant of household income, while the assessments of the general economic situation in the past and in the future also reflect output developments. Finally, the willingness to make major purchases at present appears to be determined to a lesser extent by contemporaneous employment and output developments than are the aforementioned responses to the consumer survey. While for industrial confidence the individual questions may be considered more forward-looking, for consumer confidence this is the case for less than half of the questions, giving rise to lags between the two indicators which are similar to those between output and employment developments. At the same time, the leading indicator property of confidence data with regard to actual developments derives from the more timely availability of survey data.

Divergences broadly reflect the productivity cycle

Given that output growth and employment growth appear to be key determinants of industrial and consumer confidence respectively, the differences between the two confidence indicators may be seen as reflecting the differences between output and employment growth, i.e. productivity growth. As changes in employment growth tend to follow the cyclical movements of output growth with a more or less stable time lag, differences between industrial and consumer confidence are expected to be only short-lived and to follow the regular cyclical pattern of productivity growth (see the chart below). It should be noted that the business survey covers manufacturing firms only, whereas the consumer survey covers the household sector as a whole. This implies that consumer confidence will be influenced by employment growth in the overall economy rather than in

Productivity growth and the difference between industrial and consumer confidence in the euro area

 $(percentage\ balances;\ annual\ percentage\ changes;\ monthly\ data)$

- difference between industrial and consumer confidence 1) (left-hand scale)
- - productivity growth 2) (right-hand scale)



Sources: European Commission Business and Consumer Surveys and Eurostat.

- 1) Data shown are calculated as deviations from the average over the period since January 1985.
- 2) Manufacturing; data shown are calculated by using three-month centred moving averages for industrial production.

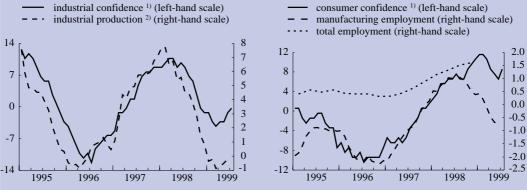
manufacturing, which would give rise to a looser relationship between productivity growth in manufacturing and the difference between the two confidence indicators. However, developments in the cyclically sensitive manufacturing sector tend to carry over to important parts of the services sector, thus shaping opinions on the corporate sector as a whole and on the general economic situation to a larger extent than would correspond to the manufacturing sector's weight in overall GDP. If perceptions of the whole economy are dominated by developments in industry, industrial confidence may also be seen as having a particularly strong effect on households' assessment of the general economic situation, leading to an even closer alignment with overall consumer confidence. Unless there is a protracted decoupling of developments in industry from those in the remaining sectors of the economy, divergences between industrial and consumer confidence will only be temporary and will be reflected in the manufacturing productivity cycle.

Recent divergence is partly explained by pronounced differences in sectoral employment patterns

Both industrial and consumer confidence started to improve in mid-1996 from below-average levels (see the chart below), but industrial confidence returned to its average level half a year earlier than consumer confidence, i.e. in May 1997 compared with October 1997, giving rise to a positive difference between the two indicators. Employment growth in the manufacturing sector improved in the course of 1997 and eventually turned positive at the end of the year. This pattern of growth was also observed in total employment growth, albeit at positive rates, thus triggering further increases in consumer confidence. At the same time, industrial production growth and industrial confidence both started to decline early in 1998. Consumer confidence continued to increase, even though a slowdown in manufacturing employment growth set in during the second half of 1998, owing to continuously strong growth in total employment. This underlying divergence in the pattern of sectoral employment growth may explain the pronounced difference between industrial and consumer confidence emerging in early 1999. No data are available to date for total employment growth in the first half of 1999, but no more than a slight slowdown is likely, thus explaining why consumer confidence remained close to the record high levels observed earlier in the year. Industrial confidence began to recover in line with a turnaround in production growth at the end of the first quarter of 1999. This implied a partial reversal of the divergence between the developments in industrial and consumer confidence, coinciding with a parallel development in productivity growth.

Confidence data and related economic developments in the euro area

(percentage balances; annual percentage changes; monthly data except for total employment)



Sources: European Commission Business and Consumer Surveys and Eurostat.

- 1) Data shown are calculated as deviations from the average over the period since January 1985.
- 2) Manufacturing; data shown are calculated by using three-month centred moving averages.