European Commission | Directorate-General for Economic and Financial Affairs

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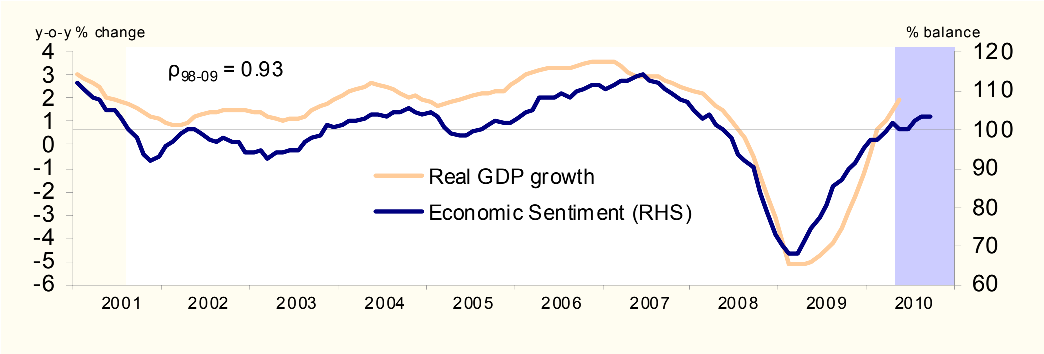
European Business Cycle Indicators

N.B.: Business survey data since May 2010 are now classified in accordance with an updated version of the Nomenclature of Economic Activities (NACE Rev. 2); recent developments should therefore be interpreted with caution.

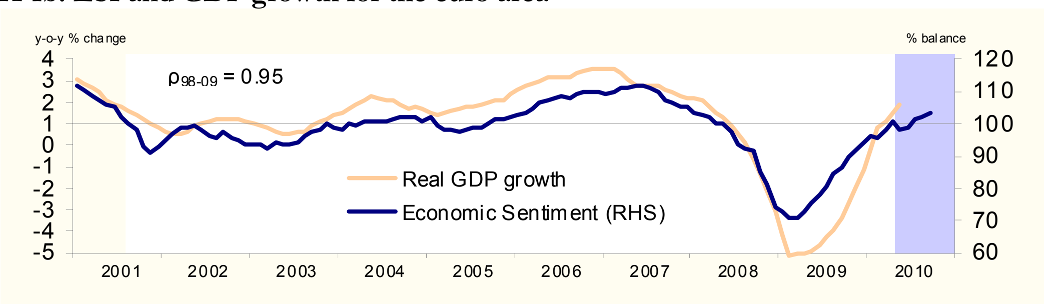
- Economic sentiment continues to improve
- Confidence in industry edges up further
- Consumer confidence levels off, with divergent patterns across countries
- Speed of recovery differs at country level

In September, the Economic Sentiment Indicator (ESI) continued to improve in both the EU and the euro area. The indicator increased only marginally, by 0.3 of a point in the EU and, more significantly, by 0.9 of a point in the euro area, to 103.4 and 103.2 respectively. In both the EU and the euro area the ESI stands above its long-term average and is now back at a level last seen in early 2008.

GRAPH 1a: ESI and GDP growth for the EU



GRAPH 1b: ESI and GDP growth for the euro area



Source: European Commission

Note 1: The horizontal line (RHS) marks the long-term average of the sentiment indicator (100 = average for 1990 to 2009).
Note 2: Both series are plotted at monthly frequency. Monthly GDP data are obtained by linear interpolation of quarterly data.

'European Business Cycle Indicators' provides short-term analysis based on Business and Consumer Survey data. It appears monthly, using the latest available data.
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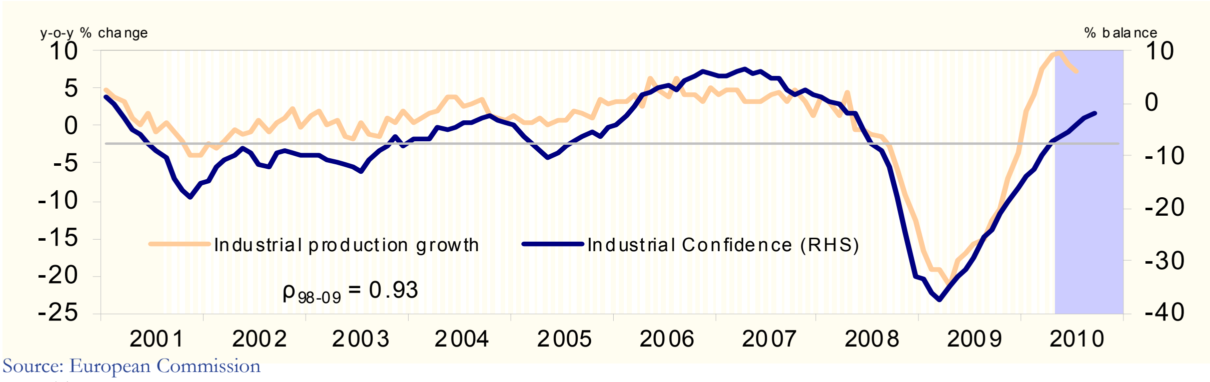
Sentiment in industry improved by 1 point in the euro area. The majority of respondents in this sector reported slight improvements in both the assessment of their order books and production expectations, while managers' assessment of stocks remained broadly unchanged. The recent trend of the indicator suggests that the pace of the economic recovery in industry may be levelling off (Graph 2).

GRAPH 2: Industrial confidence indicator and industrial production for the euro area



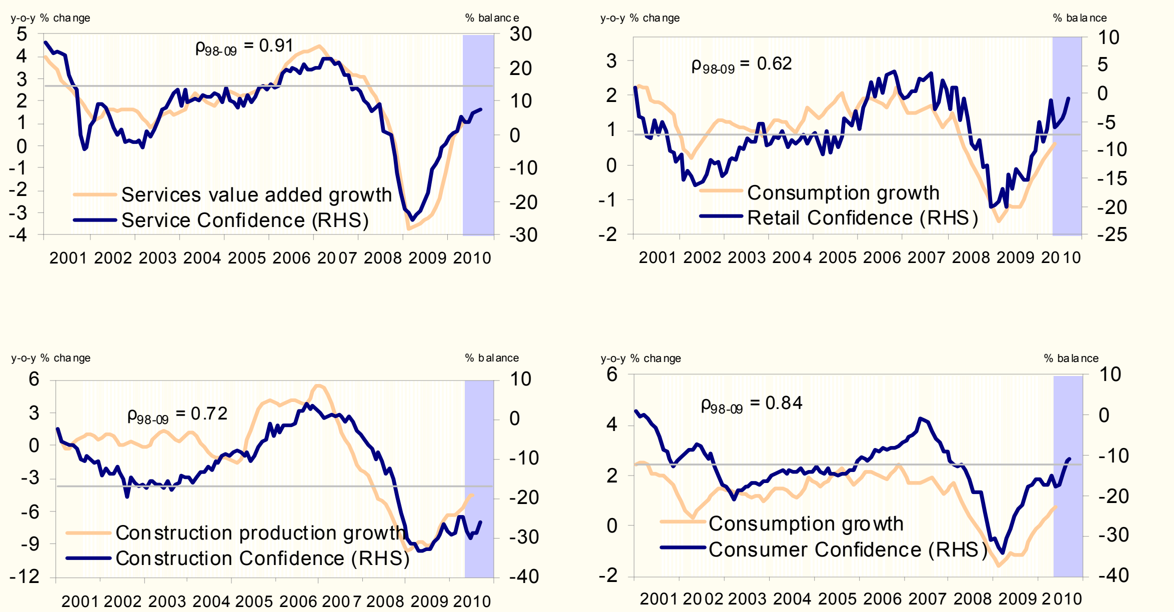
Source: European Commission

Note: The horizontal line marks the long-term average of the confidence indicator.

Confidence in services improved by 1 point in the euro area, driven by an improved assessment of the business situation over the past three months. Confidence improved by 2 points in the retail sector and by 3 points in construction. However, confidence in construction remains at a very low level, well below its long-term average (Graph 3).

As indicated in the flash estimate, confidence among consumers is showing the first signs of a levelling-off, slightly above its long-term average in the euro area. Consumers' pessimistic views about the general economic situation were counterbalanced by a further easing of unemployment fears. Savings expectations and the assessment of their own future financial situation remained unchanged.

GRAPH 3: Sectoral confidence indicator and reference series for the euro area



Source: European Commission

Note: The horizontal line marks the long-term average of the confidence indicators.

Economic sentiment indicators for the four largest euro area Member States and the UK

No clear pattern emerged across the four largest euro-area Member States and the UK. Indicators continue to suggest diverging trends, pointing to different speeds of recovery (Graph 4).

Germany reported the most significant increase (+2.0) in the ESI. Upbeat production expectations in industry suggest that businesses are continuing to rely on strong external demand. Sentiments in services and in construction also improved. Together with the ongoing increase in consumers' sentiment and in retail – which has been since last June – these developments signal a rebalancing towards domestic demand driven growth.

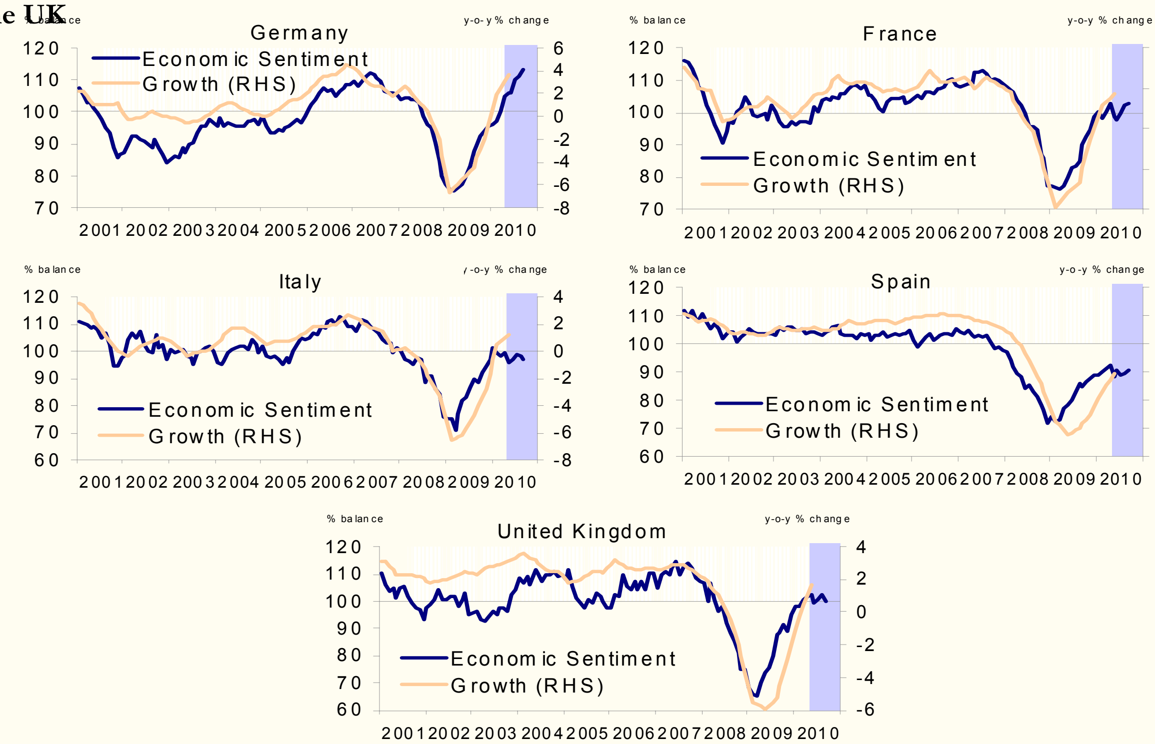
In Spain, sentiment also improved (+1.1), although the level of the ESI remains among the lowest of the largest Member States in the euro area. This increase resulted from a strong rebound in retail trade and services. Spanish confidence also improved markedly in construction, although it weakened somewhat in industry.

In France, the ESI remained broadly unchanged (+0.1). Further improvement in confidence in industry was offset by pessimistic assessments in retail trade and services. Confidence among consumers increased slightly, after the strong rise observed during the previous month.

Italy reported a decline (-1.2) of the ESI. The decline in sentiment resulted from a sharp drop in the indicator for services, on the back of more pessimistic views on the business situation and demand. Confidence among consumers and industrialists also worsened, albeit more moderately. On the other hand, confidence in retail trade and construction increased in September.

The UK reported the biggest worsening in sentiment (-2.1), as pessimism was reported across the sectors. In particular, confidence in retail trade showed a significant deterioration, resulting from a sharp fall in managers' assessments of business activity. Consumers were also mostly pessimistic, especially about the general economic situation in the UK.

GRAPH 4: ESI and GDP growth (year-on-year) for the four largest euro area Member States and the UK



Source: European Commission

Note: The horizontal line marks the long-term average of the sentiment indicators.

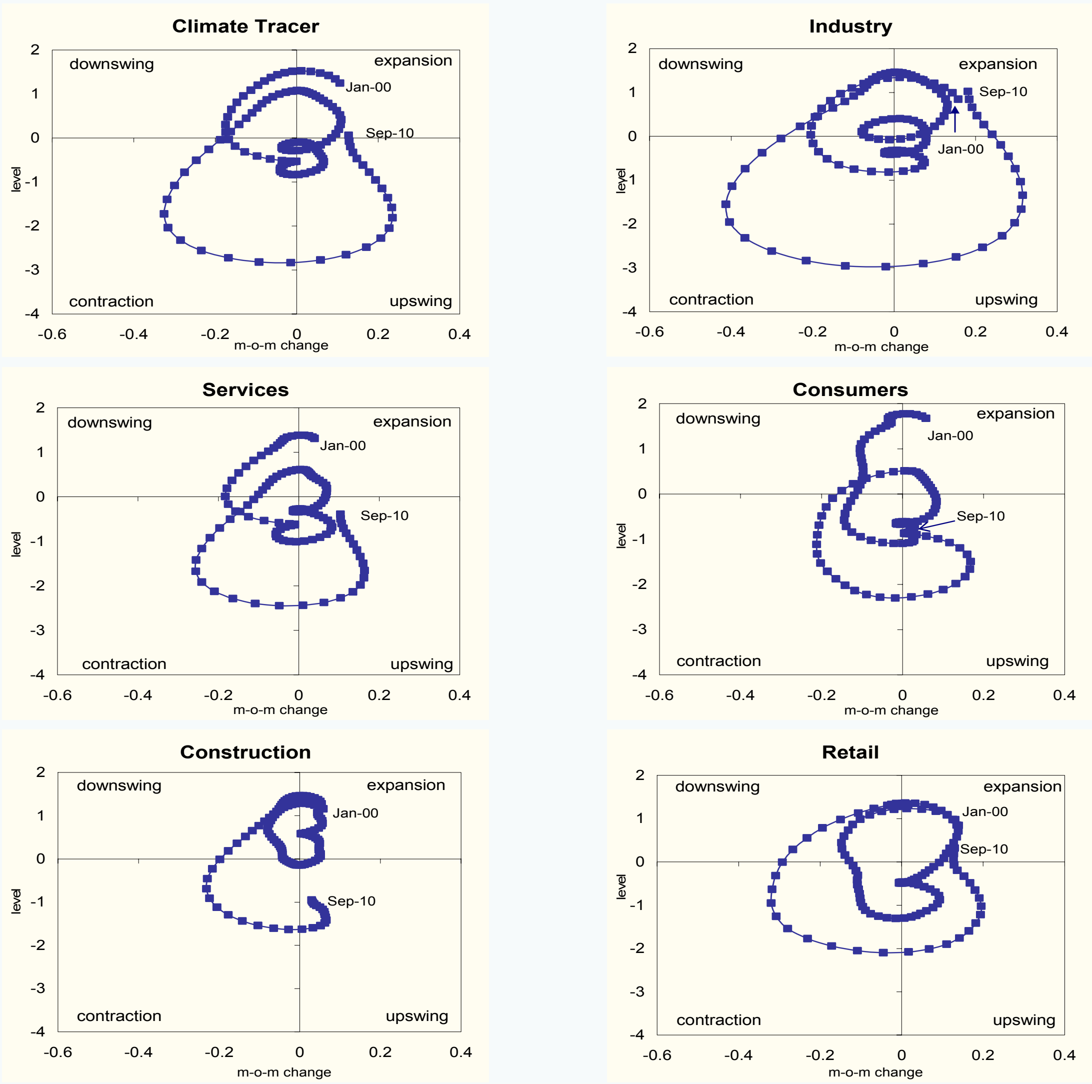
The economic climate tracer

Graph 5a shows the economic climate tracer (and its sectoral components) for the euro area. The graph distinguishes between four phases of the business cycle — represented by its four quadrants — namely 'expansion' (top right), 'downswing' (top left), 'contraction' (bottom left) and 'upswing' (bottom right). Cyclical peaks are positioned in the top centre of the graph, and troughs in the bottom centre.

Based on NACE Rev. 2 input data since May 2010 and NACE Rev. 1 data until April, the economic climate tracer for the euro area, which was firmly in the upswing quadrant, has shifted since September from the upswing quadrant to the expansion quadrant. The consumer climate tracer is in the upswing quadrant, although still close to the contraction quadrant. The climate tracers for industry and the retail trade are firmly in the expansion quadrant, while services and construction are still in the upswing phase, with construction lagging behind.

This section shows the economic climate tracer (ECT): both cyclical movements (Graphs 5a and 5b) and its most recent values across sectors (Graph 6). The economic climate tracer is compiled from a larger set of series than the ESI and involves a smoothing step (see Annex 1 for details). As a consequence, the resulting message may differ from the analysis set out in previous sections.

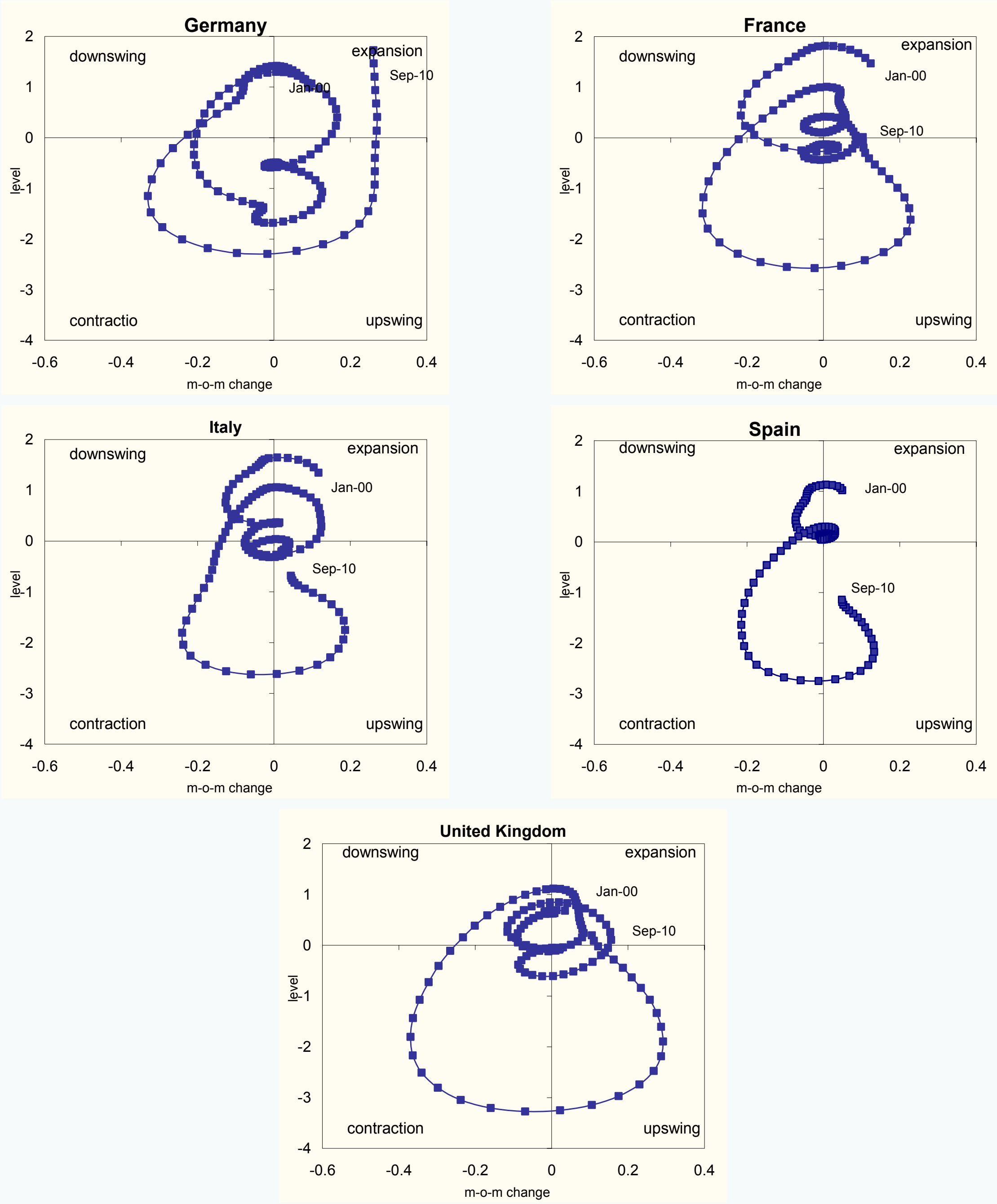
GRAPH 5a: Economic climate tracer across sectors, euro area



Source: European Commission

Graph 5b displays the economic climate tracer for the four largest Member States in the euro area and for the UK. Germany is firmly in the expansion phase, and is followed by the UK. France has been in the expansion phase since September. Italy and Spain are still in the upswing quadrant, with Spain lagging.

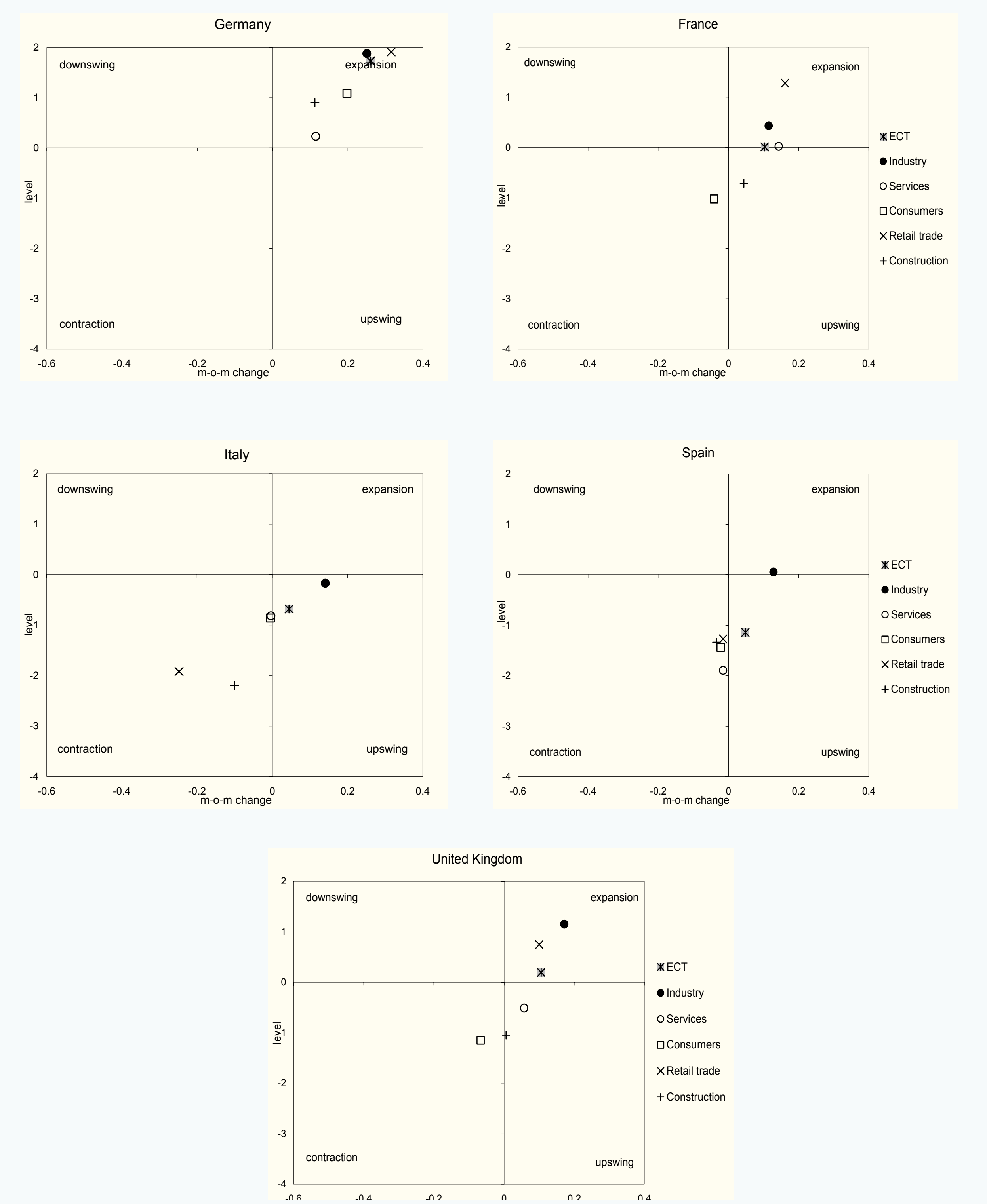
GRAPH 5b: Economic climate tracer for the four largest euro area Member States and the UK



Source: European Commission

Graph 6 shows the latest values for the climate tracer, broken down by sector. Germany is firmly in the lead, with all the sectoral climate tracers being in the expansion quadrant. The picture is more contrasted for the other countries. In particular, industry is in the upswing quadrant in the UK, France and Spain. The same is true for retail trade in both France and the UK. The consumer climate indicator is in the contraction phase in Spain, Italy and France and the UK.

GRAPH 6: Sectoral breakdown of the climate tracer for the four largest euro area Member States and the UK



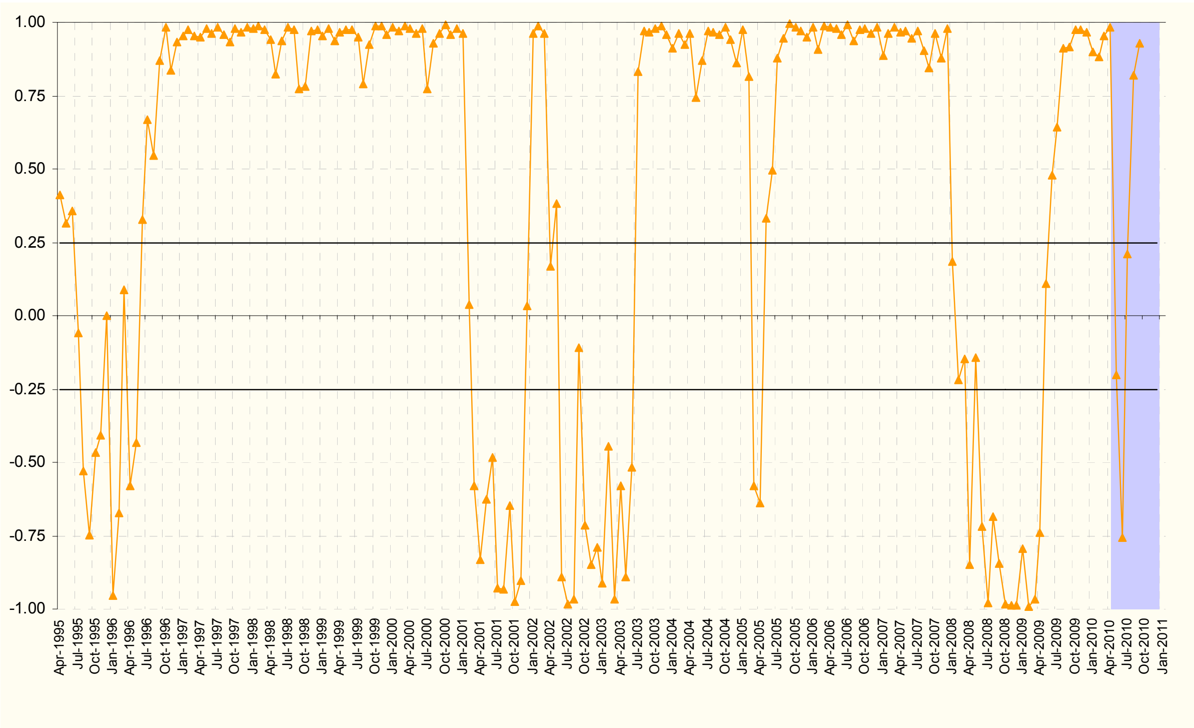
Source: European Commission

Euro area turning point index

The turning point index — based on a Markov switching model — estimates the difference between high- and low-regime probabilities. On the basis of the latest survey data for the euro area, the turning point index (TPI) edged up to 0.92 in September.

By design, the turning point's computation aims to extract the surprises — positive or negative — from new information in the surveys. As confidence picks up again, the TPI therefore reveals positive change and signals a possible favourable cyclical phase, suggesting that GDP growth (q-o-q) is likely to be above the rate of potential growth in 2010Q3 (see Annex 1 for details).

GRAPH 7: Turning point index for the euro area



Source: European Commission

Annex 1: Technical Background

Reference series

The reference series are from Eurostat, via Ecowin:

Confidence indicators	Reference series (volume/year-on-year growth rates)
Total economy (ESI)	GDP, seasonally- and calendar-adjusted
Industry	Industrial production, working-day-adjusted
Services	Gross value added for the private services sector, seasonally- and calendar-adjusted
Consumption	Household and NPISH final consumption expenditure, seasonally- and calendar-adjusted
Retail	Household and NPISH final consumption expenditure, seasonally- and calendar-adjusted
Building	Production index for building and civil engineering, trend-cycle component

Note: Monthly data are obtained by linear interpolation of quarterly data.

Economic Sentiment Indicator

The economic sentiment indicator (ESI) is a weighted average of the balances of selected questions addressed to firms and consumers in five sectors covered by the EU Business and Consumer Surveys Programme. The sectors covered are industry (weight 40%), services (30%), consumers (20%), retail (5%) and construction (5%).

Balances are constructed as the difference between the percentages of respondents giving positive and negative replies. The Commission calculates EU and euro area aggregates on the basis of the national results and seasonally adjusts the balance series. The indicator is scaled to have a long-term mean of 100 and a standard deviation of 10. Thus, values greater than 100 indicate above-average economic sentiment and vice-versa. Further details on construction of the ESI can be found at:
http://ec.europa.eu/economy_finance/db_indicators/surveys/method_guides/index_en.htm
Long time series of the ESI and confidence indicators are available at:
http://ec.europa.eu/economy_finance/db_indicators/surveys/time_series/index_en.htm.

Economic Climate Tracer

The economic climate tracer is a two-step procedure. The first consists of building economic climate indicators. They are based on principal component (PC) analyses of balance series (s.a.) from the surveys conducted in industry, services, building, retail trade and among consumers. In the case of industry, five of the monthly questions in the industry survey are used as input variables (employment and selling-price expectations are excluded). For the other sectors the number of input series is: services: all five monthly questions; consumers: nine questions (price-related questions and the question about the current financial situation are excluded); retail: all five monthly questions; building: all four monthly questions. In the case of the euro area, the first principal component explains between 65% (retail) and 92% (industry) of the variance of the input balance series in question.

The economic climate indicator (ECI) is a weighted average of the five PC-based sector climate indicators. The sector weights equal those underlying the economic sentiment indicator (ESI), i.e. industry 40%; services 30%; consumers 20%; construction 5%; and retail trade 5%. The weights were allocated broadly on the basis of two criteria: the representativeness of the sector in question and historical tracking performance vis-à-vis GDP growth.

In the second step of the procedure, all climate indicators are smoothed using the HP filter in order to eliminate short-term fluctuations of a period of less than 18 months. The smoothed series are then standardised to a common mean of zero and standard deviation of one. The resulting series are plotted against their first differences. The four quadrants of the graph, corresponding to the four business cycle phases, are crossed in an anti-clockwise movement. The phases can be described as: above average and increasing (top right, 'expansion'), above average but decreasing (top left, 'downswing'), below average and decreasing (bottom left, 'contraction') and below average but increasing (bottom right, 'upswing'). Cyclical peaks are positioned in the top centre of the graph and troughs in the bottom centre.

Markov Switching Turning Point Index

The purpose of the turning point index model, based on the work of Grégoir and Lenglart (2000)[1], is to identify economic growth trends in the euro area, using as input all the confidence indicators derived from the surveys of industry, services, building, retail trade and consumers. This model is symmetric in signalling turning points. TPI values within the ± 0.25 range imply stabilisation, when the pace of activity is around its potential (the signals received are very varied and indicate no clear-cut upward or downward movement). The economy is performing a soft landing or soft take-off, depending whether the previous period was marked by acceleration or deceleration. By contrast, the signal is very consistent when TPI values draw very close to or reach ± 1: the cyclical phase is deemed to be clearly favourable or unfavourable; economic activity is in a period of sharp acceleration (or sharp deceleration or even contraction).

[1] Grégoir, S. and Lenglart, F. (2000), 'Measuring the probability of a business cycle turning point by using a multivariate qualitative hidden Markov model', Journal of Forecasting, 19.