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# European Business Cycle Indicators

4<sup>th</sup> Quarter 2017

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# European Business Cycle Indicators

## 4<sup>th</sup> Quarter 2017

### Special topic

- Results of the autumn 2017 EU Investment Survey in the manufacturing sector

This document is written by the staff of the Directorate-General for Economic and Financial Affairs, Directorate A for Policy, Strategy, Coordination and Communication, Unit A3 - Economic Situation, Forecasts, Business and Consumer Surveys ([http://ec.europa.eu/info/business-economy-euro/indicators-statistics/economic-databases/business-and-consumer-surveys\\_en](http://ec.europa.eu/info/business-economy-euro/indicators-statistics/economic-databases/business-and-consumer-surveys_en)).

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## OVERVIEW

### Recent developments in survey indicators

- Following significant gains over the second and third quarters of 2017, the euro-area (EA) and EU Economic Sentiment Indicators (ESI) continued rising throughout the fourth quarter. With gains of 2.9 (EA) and 2.8 (EU) points, the last three months lifted the indicators to a level of 116.0 (EA) and 115.9 (EU) points, which is only a few points below the historical peaks reached in May 2000.
- The positive results in the euro area are due to marked increases in all business sectors and among consumers. The increases were particularly strong in the retail trade and construction sectors. Also at EU level confidence improved in all sectors. In the EU, however, the rises were particularly pronounced in services and construction, while confidence among consumers improved only slightly
- Also from a country perspective, developments compared to September were generally positive. Among the seven largest EU economies, 2017Q4 saw economic sentiment significantly brightening in Germany (+3.6) and the UK (+3.4). The indicator increased also in France (+2.6), Poland (+1.9), the Netherlands (+1.6) and Italy (+1.2). Sentiment in Spain (+0.1) remained essentially flat.
- Capacity utilisation in manufacturing increased for the sixth consecutive quarter (+0.6 percentage points in the euro area, +0.7 percentage points in the EU). Currently, capacity utilisation is at 83.8% (EA) / 83.6% (EU), i.e. clearly above the regions' respective long-term averages of around 81%. By contrast, capacity utilisation in services saw a decrease of 0.6 points in both EA and EU. Nevertheless, the current rates of 89.6% (EA) and 89.5% (EU) correspond to levels clearly above the respective long-term averages (calculated from 2011 onwards) of around 88.5%.

### Special topic: Results of the autumn 2017 EU Investment Survey in the manufacturing sector

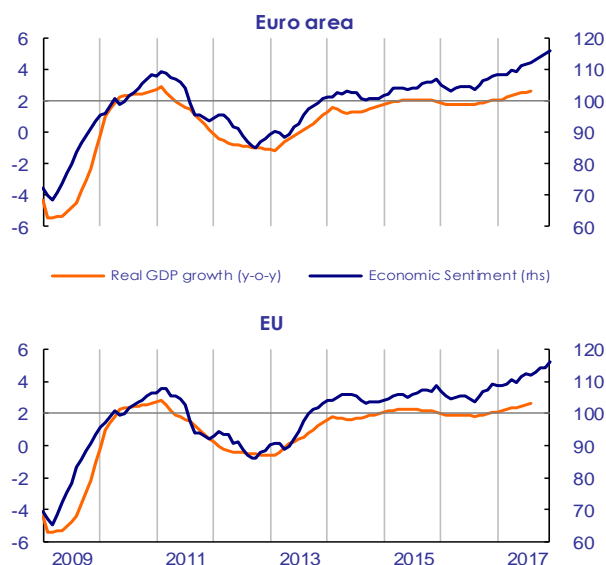
The latest EU-wide Investment Survey was conducted in October-November 2017. The results indicate that euro-area and EU real manufacturing investment has risen in 2017 (by 2.5% and 4.0%, respectively) and is foreseen to increase further in 2018 (at rates of 4.3% and 3.6%, respectively). At country level, manufacturing managers assessed their investment in 2017 to have increased in all the largest Member States except Spain and Italy. For 2018, managers in Germany, the Netherlands, Poland and the UK plan to further increase their investment. Investments are expected to increase also in Spain, while managers in Italy foresee a further contraction. Also in France, real investments are expected to decrease slightly in 2018. The Investment Survey also provides information on the factors influencing investment (demand, financial resources, technical, other) and asks firms to assign their investments to four categories (replacement, extension, rationalisation, other (pollution control, safety, etc.)). We report results for the EU, euro area and large Member States, broken down by main industrial groupings and size classes.

# 1. RECENT DEVELOPMENTS IN SURVEY INDICATORS

## 1.1. EU and euro area

The euro-area (EA) and EU Economic Sentiment Indicators (ESI) rose further during the fourth quarter of 2017, continuing the upward trend visible since autumn 2016 (see Graph 1.1.1). Over the last three months, the indicators increased strongly by 2.9 (EA) and 2.8 (EU) points, reaching levels of 116.0 (EA) and 115.9 (EU) points. These end-year scores are above the indicators' pre-crisis peaks of May 2007 and only a few points below the historical peaks (of 119.0 in the EA and 117.3 in the EU) reached in May 2000.

Graph 1.1.1: Economic Sentiment Indicator

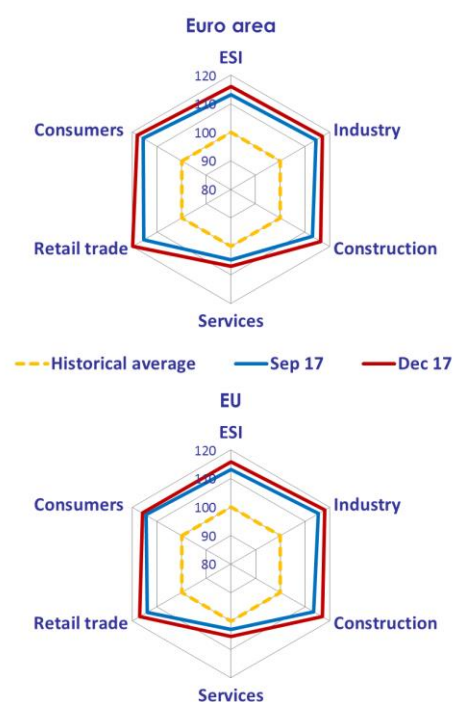


Note: The horizontal line (rhs) marks the long-term average of the survey indicators. Confidence indicators are expressed in balances of opinion and hard data in y-o-y changes. If necessary, monthly frequency is obtained by linear interpolation of quarterly data.

In line with the upbeat ESI results, Markit Economics' Composite PMI for the euro area gathered further momentum during 2017Q4, attaining levels last reached in spring 2011. Similarly, following more than one year of rising confidence, the Ifo Business Climate Index (for Germany) reached a new all-time

high in November, before edging downwards in December.

Graph 1.1.2: Radar Charts



Note: A development away from the centre reflects an improvement of a given indicator. The ESI is computed with the following sector weights: industry 40%, services 30%, consumers 20%, construction 5%, retail trade 5%. Series are normalised to a mean of 100 and a standard deviation of 10. Historical averages are generally calculated from 1990q1. For more information on the radar charts see the Special Topic in the 2016q1 EBCI.

From a sectoral perspective, euro-area confidence in 2017Q4 improved markedly in all business sectors and among consumers. The increases were particularly strong in the retail trade and construction sectors (see Graph 1.1.2). Also at EU-level confidence improved in all sectors. In the EU, the rises were particularly pronounced in services and construction, while confidence among consumers improved only slightly.

In terms of levels, all euro-area and EU confidence indicators are notably above their respective long-term averages. What is more, abstaining from retail trade, 2017Q4 saw all sectoral indicators mark their highest levels in six years or more. In particular, the confidence

indicator for industry reached its historically highest level (since 1985).

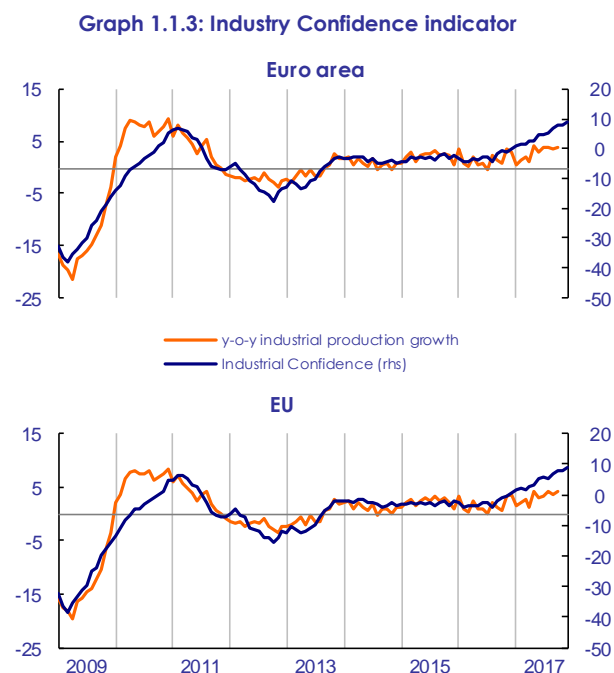
Among the seven largest EU economies, 2017Q4 saw economic sentiment significantly brightening in Germany (+3.6) and the UK (+3.4), the latter mostly driven by buoyant sentiment in manufacturing. The indicator increased also in France (+2.6), Poland (+1.9), the Netherlands (+1.6) and Italy (+1.2). Sentiment in Spain (+0.1) remained essentially flat.

Of the components not included in the confidence indicators, managers' views on export order books and, in particular, past production increased in 2017Q4.

Euro-area and EU selling price expectations increased markedly in 2017Q4. Also manufacturing managers' employment expectations rose substantially, perpetuating the upward trend that started at the beginning of 2016 and reaching record levels (see Graph 1.1.4).

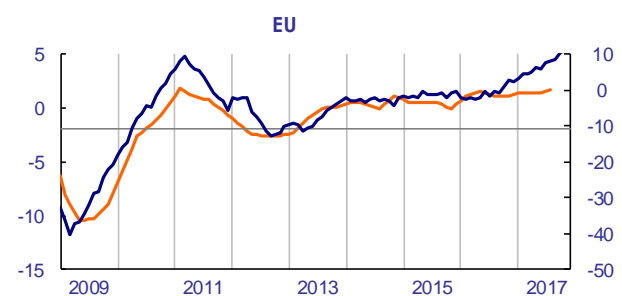
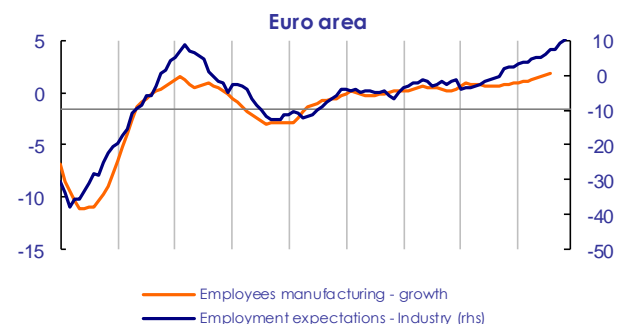
## Sector developments

Continuing the upward trend prevailing since autumn last year, **industrial confidence** in both the euro area and the EU increased further during 2017Q4, ending the quarter 2.4 (EA) and 2.1 (EU) points higher than the preceding one. As illustrated by Graph 1.1.3, industry confidence is abundant by historic standards, at record levels in both the EA and the EU.



The rise of the confidence indicators was fuelled by an improvement of all three components: managers' production expectations, assessment of the stocks of finished products and of their order books; the improvement was particularly strong in the latter.

**Graph 1.1.4: Employment - Industry Confidence indicator**

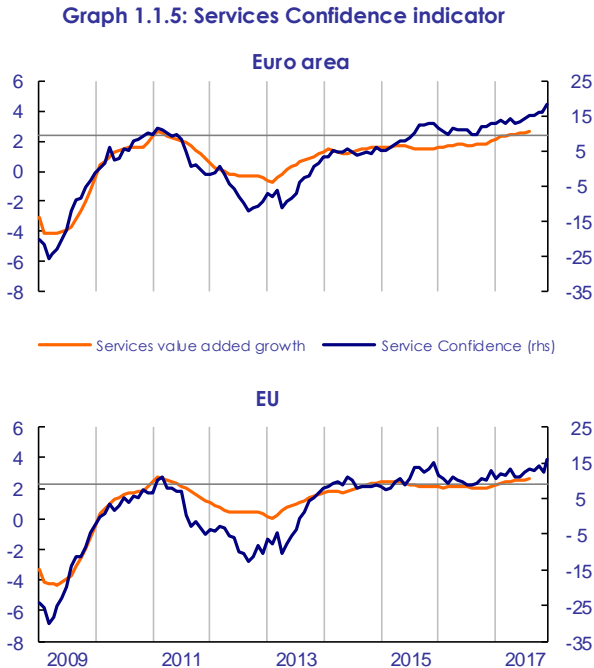


Focussing on the seven largest EU economies, a comparison of September and December readings shows solid improvements in the confidence indicator of the UK (+2.9), Germany (+2.8) and Spain (+2.7), as well as more tepid ones in the Netherlands (+1.5) and Poland (+1.4). In Italy (+0.5) and France (-0.7) sentiment did not change much over the quarter.

The quarterly manufacturing survey (October) showed **capacity utilisation in manufacturing** to have increased for the sixth consecutive quarter (+0.6 percentage points in the euro area, +0.7 percentage points in the EU). Currently, capacity utilisation is at 83.8% (EA) / 83.6% (EU), i.e. clearly above the two regions' respective long-term averages of 81.0% and 80.8%.



Also confidence in the **services sector** increased further in 2017Q4. The indicator gained 3.0 (EA) and 3.3 (EU) points on the quarter and now stands comfortably above its long-term average (see Graph 1.1.5).



The positive evolution of the confidence indicator resulted from an improvement of all three components: managers' assessment of past demand and business situation and managers' demand expectations.

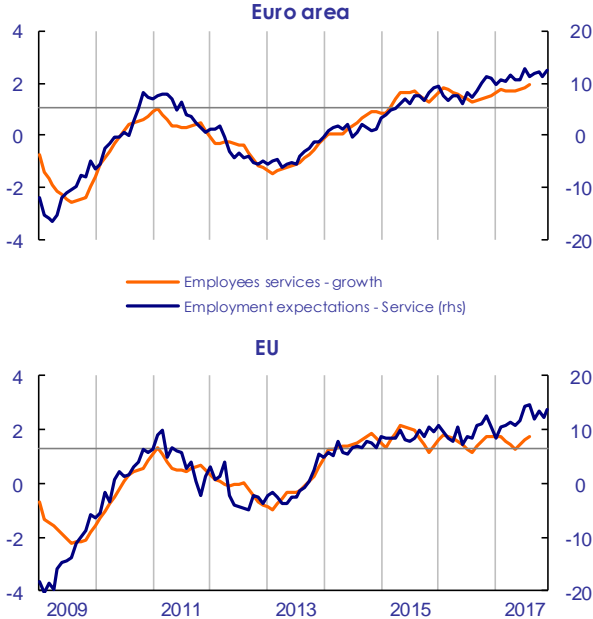
In both areas, service managers' employment expectations are at a higher level in December than in September; however, this does not seem to be due to a clear upward trend recently (see Graph 1.1.6). Meanwhile, selling price expectations saw a slight upward revision in the EU, while they remained broadly unchanged in the euro area.

Among the seven largest EU Member States, confidence in the services sector steamed ahead in Germany (+6.6), the UK (+5.2) and France (+4.4), while gaining some momentum in Italy (+2.0) and Poland (+1.0). By contrast, the indicator decreased in the Netherlands (-1.0) and, more heavily, in Spain (-7.1).

**Capacity utilisation in services**, as measured by the October wave of the dedicated quarterly survey, saw a decrease of 0.6 points in both the EA and EU. Nevertheless, the current rates of 89.6% (EA) and 89.5% (EU) correspond to

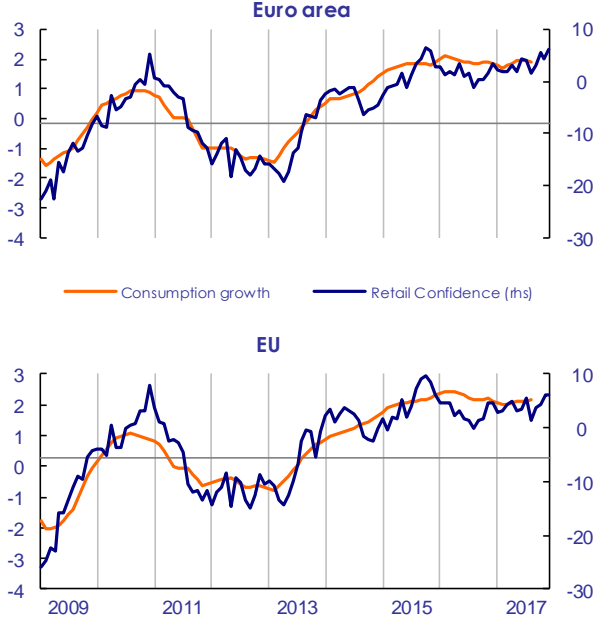
levels clearly above the respective long-term averages (calculated from 2011 onwards) of 88.4% and 88.5%, respectively.

**Graph 1.1.6: Employment - Services Confidence indicator**



**Retail trade confidence** improved in both the euro area (+3.2) and the EU (+2.2), offsetting earlier drops registered during 2017Q3. Both indicators are hovering around historically high levels, comfortably above their long-term averages (see Graph 1.1.7).

**Graph 1.1.7: Retail Trade Confidence indicator**



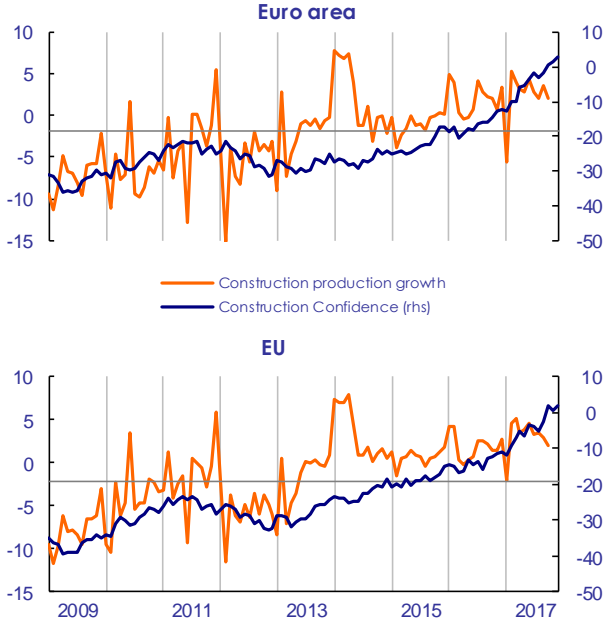
In both areas, the increase results from an improvement of all three components

(managers' appraisal of past and future business situation and the volume of stocks).

At the level of the seven largest EU economies, confidence rallied in Germany (+6.6), offsetting last quarter's hefty losses, and booked marked increases in Poland (+3.9), France (+3.3), Italy (+2.5) and the Netherlands (+1.7) as well. By contrast, the UK (-3.4) posted a marked decrease, while sentiment in the Netherlands (-0.2) remained broadly flat.

Continuing the upward trend that started in mid-2014, **construction** confidence increased markedly in 2017Q4, gaining 4.4 (EA) and 4.3 (EU) points on the quarter. In both areas, the results were driven by significantly brighter appraisals of both firms' current order books and employment expectations.

Graph 1.1.8: Construction Confidence indicator



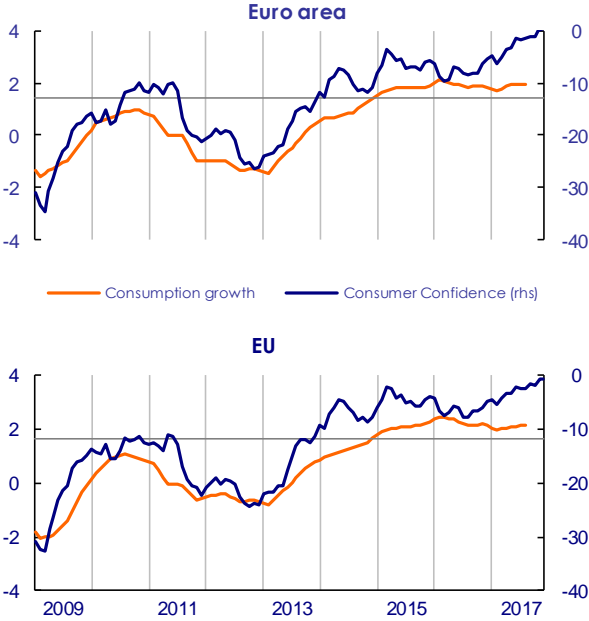
The indicator increased in all the seven largest EU economies. The rise was striking in the Netherlands (+21.1, resulting from three increases in a row, of which two particularly marked in November and December). Confidence increased markedly also in Poland (+6.1), France and the UK (both +5.5), and Germany (+3.1), while the increase was more modest in Italy (+1.5) and Spain (+0.7).

**Consumer confidence** increased slightly during 2017Q4, with readings in December 1.7 (EA) / 1.0 (EU) points higher than at the end of

the previous quarter. Both indicators thus remained at historically high levels (see Graph 1.1.9), last witnessed in spring 2001.

In both areas, consumers were more optimistic about their perception of the general economic situation and unemployment developments over the next 12 months. Consumers' expectations about their personal financial situation, by contrast, remained virtually flat in both areas and their savings expectations remained virtually unchanged in the EU and improved marginally in the EA.

Graph 1.1.9: Consumer Confidence indicator

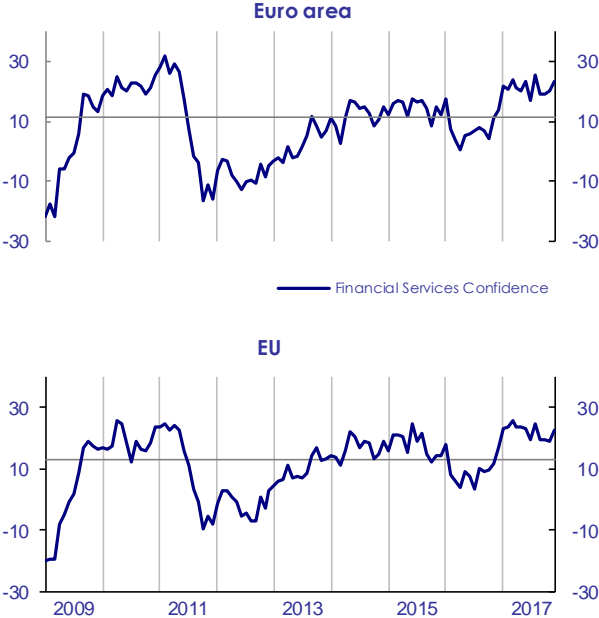


In the seven largest EU economies, consumer confidence improved markedly in France (+3.5) and booked somewhat more moderate improvements in the Netherlands (+2.4), Germany (+2.2) and Poland (+1.8), while it deteriorated in the UK (-1.8), and remained broadly unchanged in Italy (+0.2) and Spain (-0.4).

Confidence in the **financial services** sector (not included in the ESI) rose on the quarter (+4.4 in the euro area; +3.3 in the EU). Considering the characteristic volatility of the indicator though, the 2017Q4 results can be interpreted as a continuation of the broad sideways movement already observed since the beginning of the year (see Graph 1.1.10).

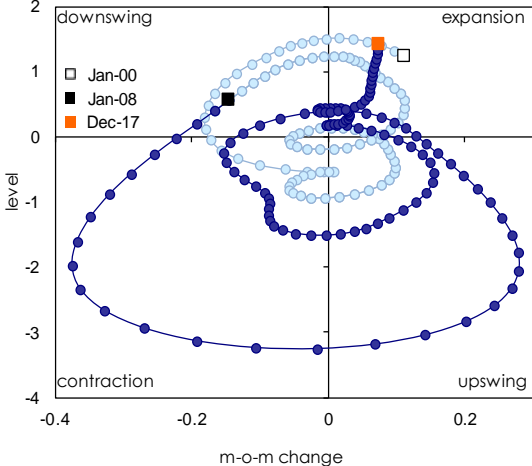
In both regions, all components of the confidence indicator, namely demand expectations, the past business situation and, in particular, past demand were appraised more positively.

Graph 1.1.10: Financial Services Confidence indicator



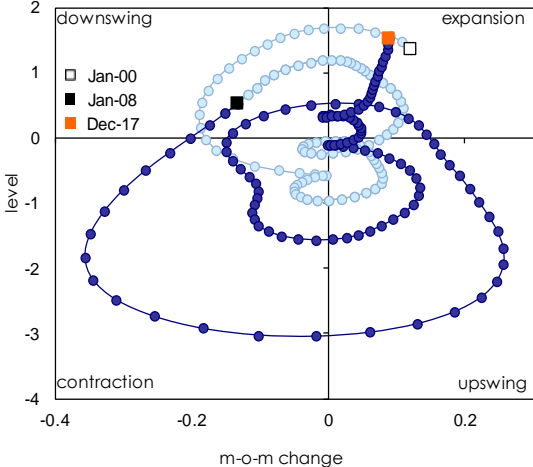
expansion. In 2017Q4 even the EU retail trade tracer moved back to the expansion area from the downswing quadrant where it had entered last quarter.

Graph 1.1.12: EU Climate Tracer



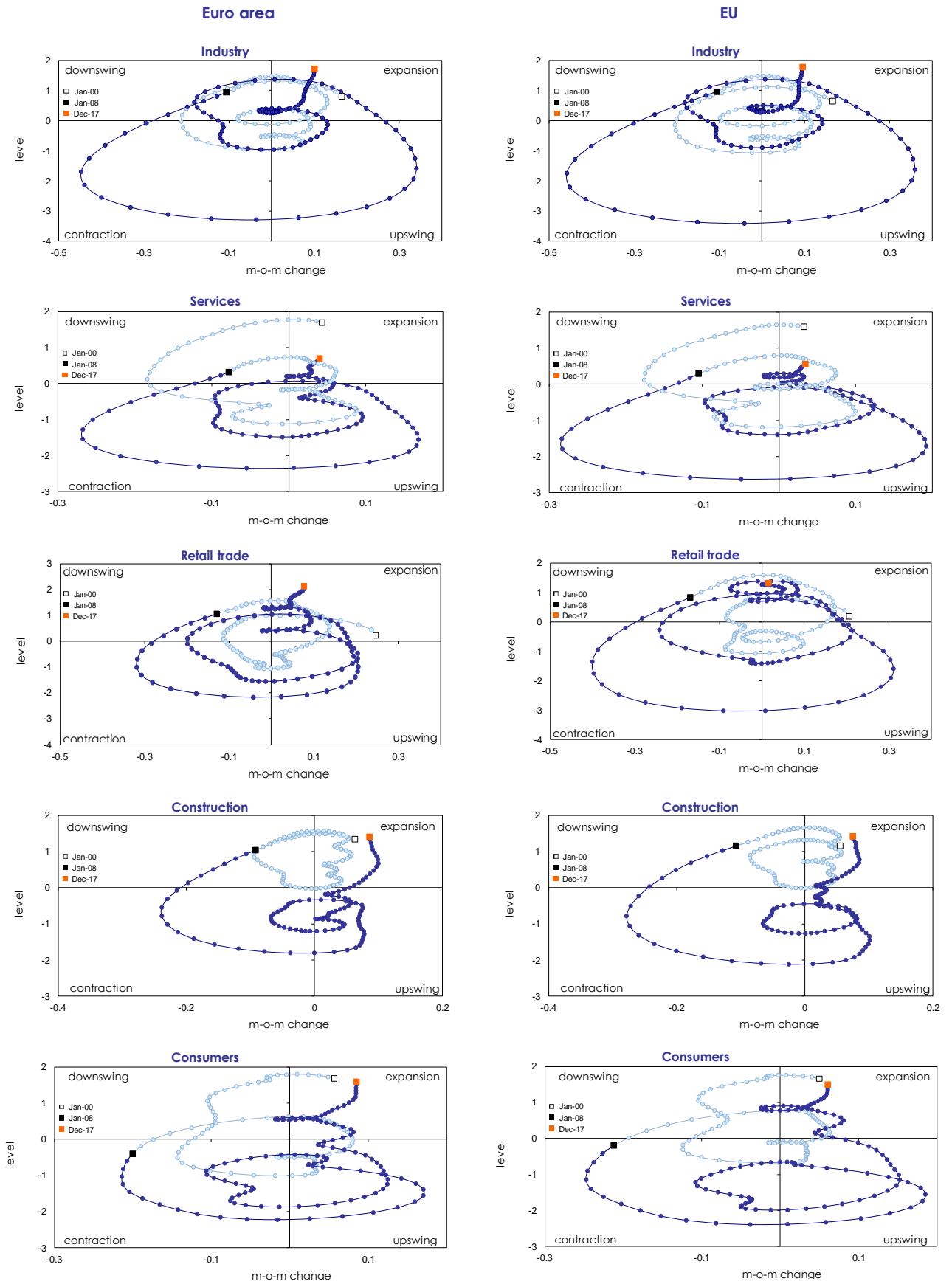
Reflecting the record-high level of overall sentiment, both the euro area and EU **climate tracers** (see Annex for details) finished 2017Q4 firmly in the expansion quadrant, increasing the distance from the upswing area yet a little more compared to the end of 2017Q3 (see Graphs 1.1.11 and 1.1.12).

Graph 1.1.11: Euro area Climate Tracer



The sectoral climate tracers (see Graph 1.1.13) are in line with the overall tracers in so far as they clearly indicate a phase of economic

Graph 1.1.13: Economic climate tracers across sectors

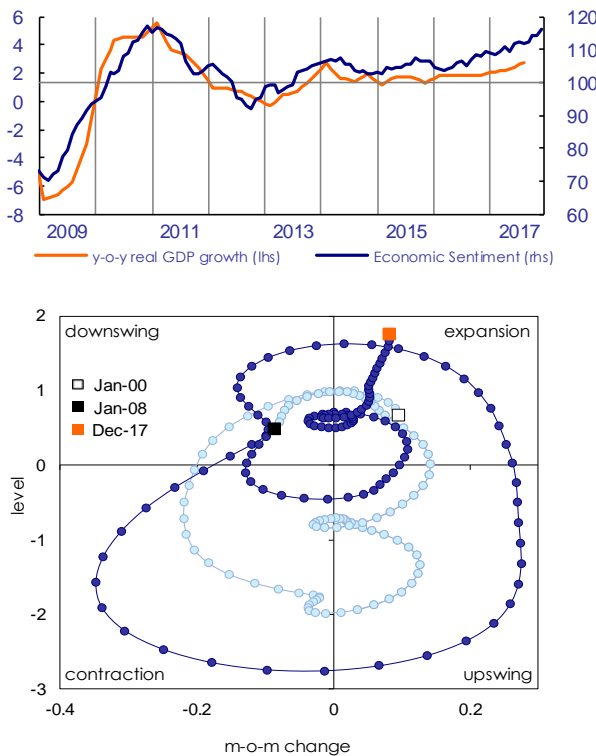


## 1.2. Selected Member States

Over the last quarter of 2017, economic sentiment improved significantly in Germany (+3.6) and the UK (+3.4). The indicator increased also in France (+2.6), Poland (+1.9), the Netherlands (+1.6) and Italy (+1.2). Sentiment in Spain (+0.1) remained essentially flat.

Sentiment in **Germany** continued the upward trend visible since mid-2016 and the national ESI finished the year 3.6 points higher than at the end of 2017Q3. At 116.0 points the indicator remained comfortably above its long-term average of 100 and reached the best score since April 2011. In terms of the climate tracer (see Graph 1.2.1), the German economy asserted its strong position in the expansion quadrant.

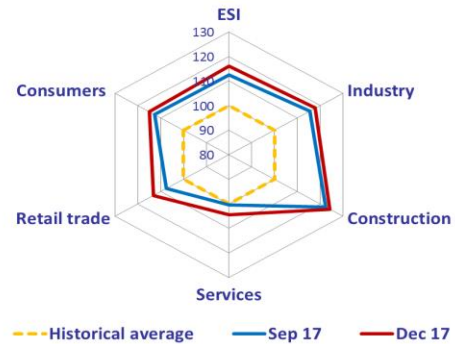
Graph 1.2.1: Economic Sentiment Indicator and Climate Tracer for Germany



From a sectoral perspective, in December 2017 all the business and consumer confidence indicators were at a higher level than at the end of 2017Q3. In line with the ESI, all sectoral confidence indicators were at levels well in excess of their respective historical averages

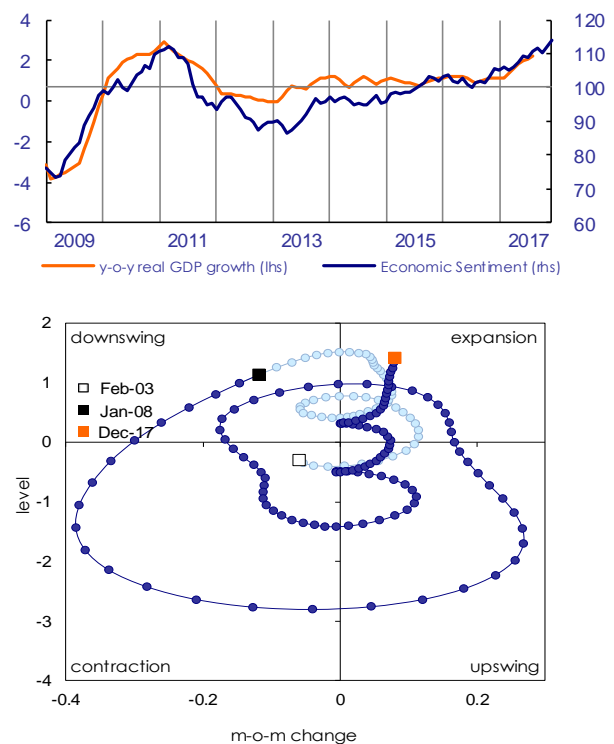
(see Graph 1.2.2). While the strongest impulse in Q4 came from retail trade, the level of confidence is particularly high in the German construction sector.

Graph 1.2.2: Radar Chart for Germany



Also **France** continued its upward trend observable since mid-2016, gaining 2.6 points on the quarter. At 114.2 points, the headline indicator is not only firmly above its long-term average of 100, but also at the highest level since August 2007. As a corollary, the French climate tracer moved deeper in the expansion quadrant (see Graph 1.2.3).

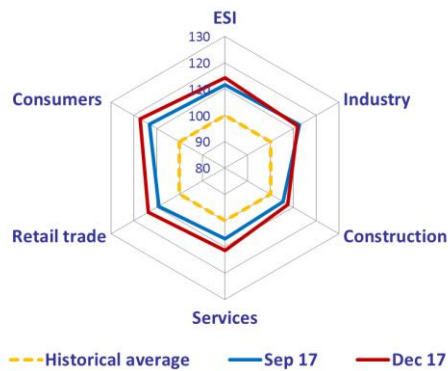
Graph 1.2.3: Economic Sentiment Indicator and Climate Tracer for France



A look at the French radar chart (see Graph 1.2.4) reveals that all surveyed business sectors,

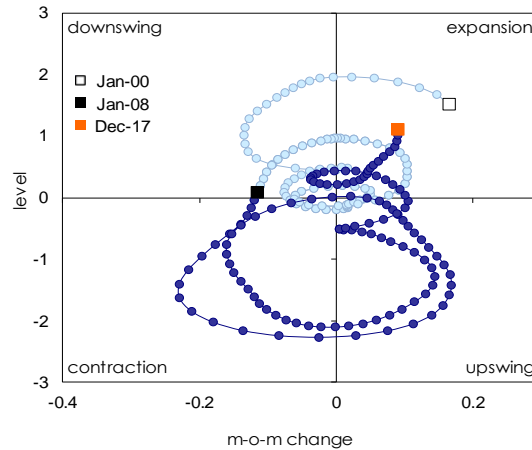
except for industry, signalled brighter sentiment. The confidence indicator for industry remained broadly stable at the level reached at the end of 2017Q3. In terms of levels, sentiment exceeded its long-term average in all surveyed parts of the economy.

Graph 1.2.4: Radar Chart for France



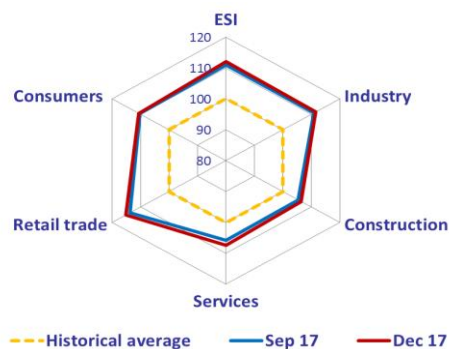
After an important increase registered in 2017Q3, the **Italian** ESI rose somewhat further in October and then remained stable during the rest of the fourth quarter. All in all, the indicator is now 1.2 points higher than at the end of the third quarter. At 112.1 points, the Italian ESI is clearly above its long-term average of 100 and is at its highest level since June 2006. In line with this result, the Italian climate tracer (see Graph 1.2.5) ventured further into the expansion quadrant.

Graph 1.2.5: Economic Sentiment Indicator and Climate Tracer for Italy



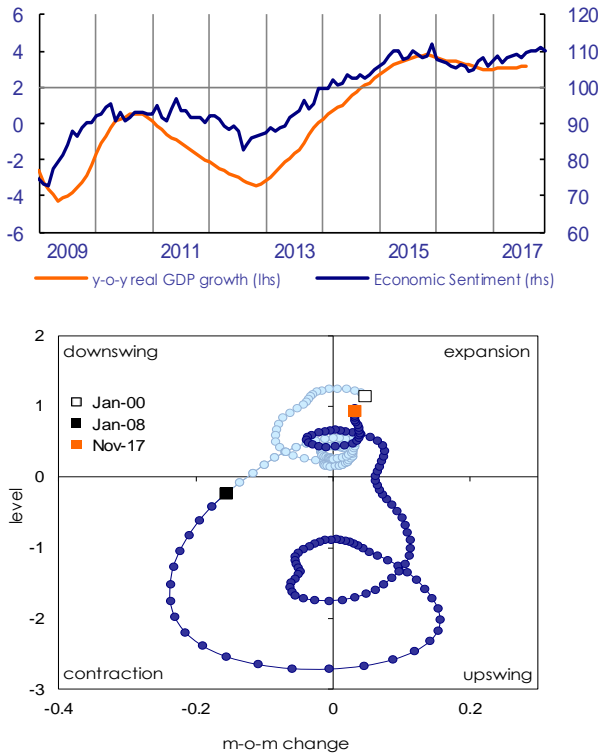
At sectoral level, it emerges that confidence improved mildly in the services, retail trade and construction sectors, while it remained virtually unchanged in industry and among consumers (see Graph 1.2.6). All sectoral indicators are clearly outperforming their respective historical averages, most clearly so in retail trade.

Graph 1.2.6: Radar Chart for Italy



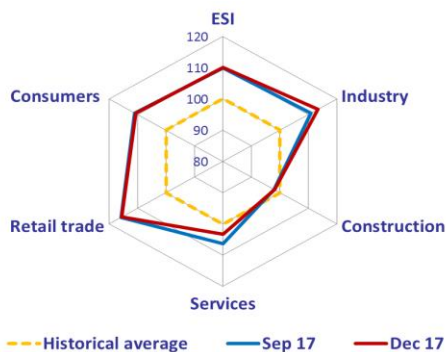
The **Spanish** ESI remained virtually unchanged, finishing 2017Q4 just 0.1 points up compared to the end of 2017Q3. At 110.0 points, the indicator continues being firmly above its long-term average of 100. Meanwhile, the country's climate tracer stayed in the expansion area (see Graph 1.2.7).

**Graph 1.2.7: Economic Sentiment Indicator and Climate Tracer for Spain**



As the radar chart highlights (see Graph 1.2.8), levels and developments of confidence varied across sectors; while services confidence dropped, the overall effect was offset by an increase in the industry sector. Confidence in retail trade, construction and among consumers remained broadly stable. Despite the drop in the service sector, sectoral confidence, with the exception of the construction sector, remained high by historic standards.

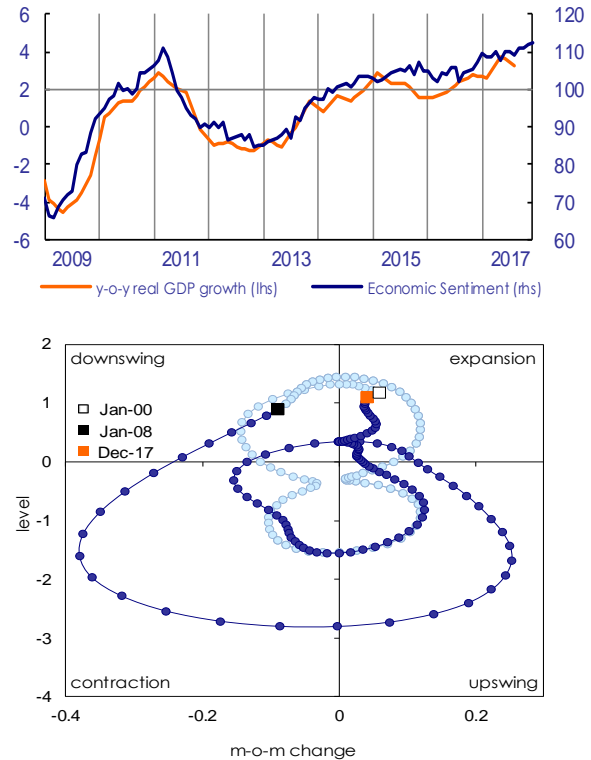
**Graph 1.2.8: Radar Chart for Spain**



**Dutch** sentiment improved during the last quarter of 2017. The Dutch ESI gained 1.6 points on the quarter and its current level of 112.5 points marks a new high in more than 10 years, well in excess of the indicators' long-term

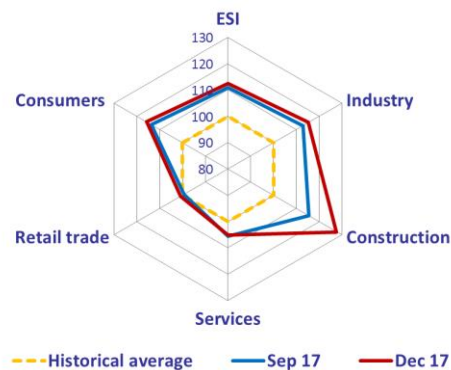
average of 100. In line with the positive results, the Dutch climate tracer (see Graph 1.2.9) moved deeper in the expansion area.

**Graph 1.2.9: Economic Sentiment Indicator and Climate Tracer for the Netherlands**



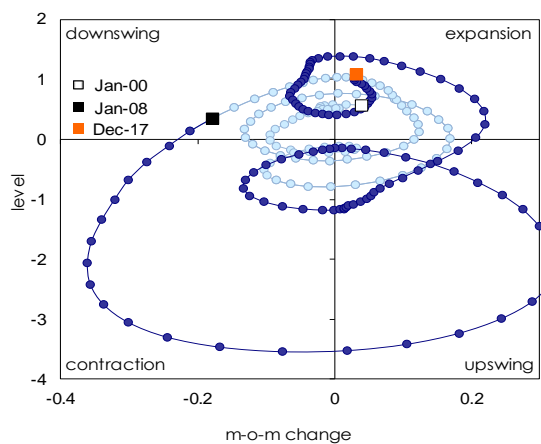
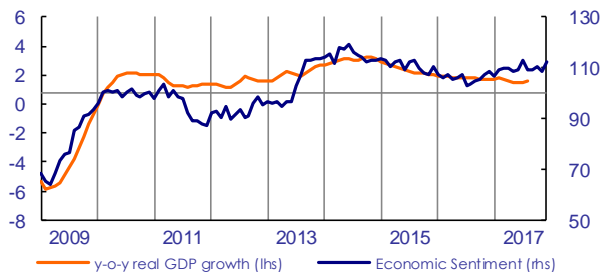
The Dutch radar chart (see Graph 1.2.10) shows that the ESI's increase resulted mainly from a sharp rise in the construction sector. Confidence edged up also in industry, retail trade and among consumers, while it worsened somewhat in the services sector. Confidence in industry, construction, among consumers and, to a lesser extent, in services, is well above the respective historical averages. Only retail trade confidence stayed at a level just normal by historical standards.

**Graph 1.2.10: Radar Chart for the Netherlands**



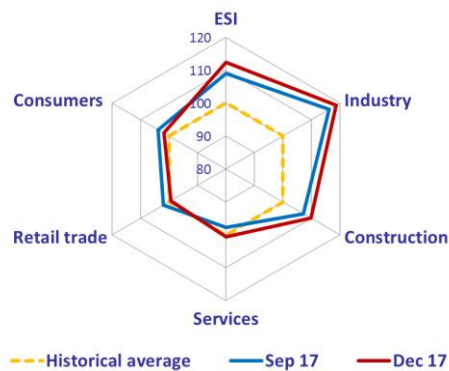
Despite the fact that sentiment in the **United Kingdom** is now 3.4 points higher than three months ago, the indicator shows a rather volatile development around a flat trend since spring 2017. At 112.4 points, the indicator stayed firmly above its long-term average of 100. The UK climate tracer remained in the expansion area (see Graph 1.2.11) pointing however in the direction of the downswing area.

**Graph 1.2.11: Economic Sentiment Indicator and Climate Tracer for the United Kingdom**



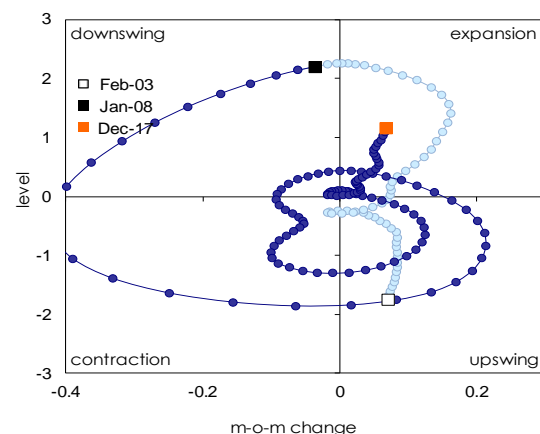
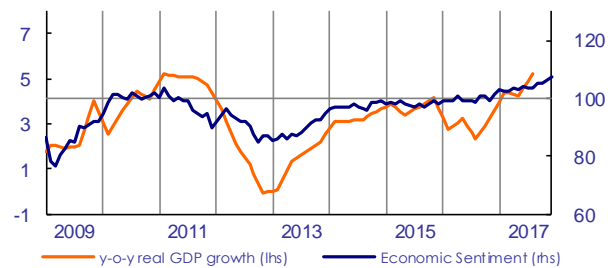
Focussing on sectoral developments, stronger confidence in industry, services and construction was offset by negative signals from managers in the retail trade sector and among consumers (see Graph 1.2.12). The confidence indicator in industry (and to a lesser extent in construction) is substantially above historical average, sustaining the ESI's high level. By way of contrast, the consumer confidence indicator is just above and the retail trade and services confidence indicators practically at long-term average.

**Graph 1.2.12: Radar Chart for the UK**



**Polish** sentiment increased further in 2017Q4, continuing a timid upward trend visible since the last quarter. The polish ESI was 1.9 points higher than at the end of 2017Q3. The indicator's current reading (107.3 points) is above its long-term average and the Polish climate tracer moved further in the expansion quadrant (see Graph 1.2.13).

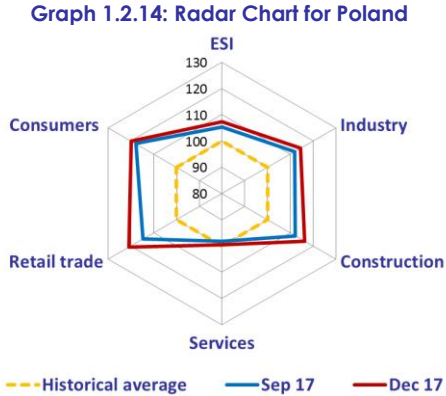
**Graph 1.2.13: Economic Sentiment Indicator and Climate Tracer for Poland**



As the Polish radar chart (see Graph 1.2.14) shows, confidence improved strongly in retail trade and construction and, though less strongly, in industry, services and among consumers. Services remained the only sector posting confidence levels marginally below



historical average, while the others indicators are all well above their respective long-term averages.



## 2. SPECIAL TOPIC: RESULTS OF THE AUTUMN 2017 EU INVESTMENT SURVEY IN THE MANUFACTURING SECTOR

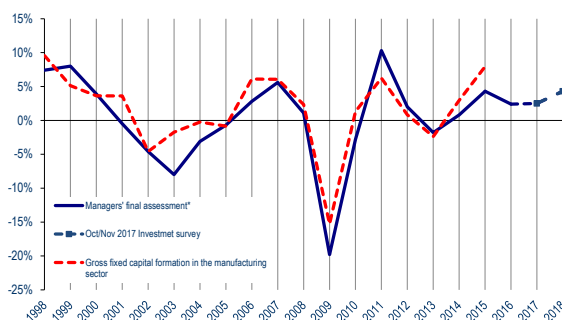
### Developments in overall investment

According to the latest Investment Survey carried out in October/November 2017, real manufacturing investment in the euro area is expected to have increased by 2.5% in 2017 compared with 2016. Concerning 2018, manufacturers expect investment to grow by +4.3%. Compared with the previous survey conducted in March/April 2017, managers revised their assessment for 2017 markedly downwards (by 2.6 pp). This corresponds to a typical pattern of revisions of investment plans over time. Over the past 20 years, the spring survey was on average overly optimistic and the autumn survey overly pessimistic compared to managers' 'ex-post assessment' of investment growth once the year in question is over.

Turning to EU developments, manufacturing managers anticipate an increase of 4.0% for investment in 2017 (slightly down from 4.2% in March/April) and expect an increase of 3.6% for 2018.

Graph 2.1 presents manufacturing managers' ex-post estimates of investment growth (surveyed in spring of the following year) along with an estimated euro-area series of Gross Fixed Capital Formation (GFCF) in the manufacturing sector.<sup>1</sup> The two series co-move well together and the correlation between them is high at 0.92 (over the period 1998 to 2015).

Graph 2.1: Investment growth in the euro area (annual changes in %, in volumes)



\*Mar/Apr year t surveys, managers' assessment of investment in year t-1.

Source: Commission services and authors' calculations.

Graph 2.2 presents manufacturing managers' ex-post estimates of investment growth along with official Eurostat figures for total investment (GFCF) and equipment investment in the euro area,<sup>2</sup> as well as the respective Autumn Commission forecasts for these investment aggregates and the latest survey result for 2017 and 2018.

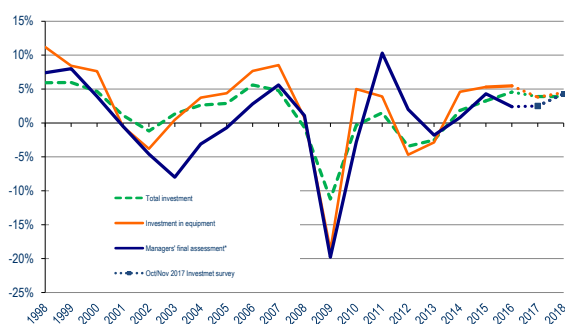
Generally, manufacturing managers' assessments co-move quite well with the outcomes of the two investment series; however, due to the imperfect conceptual match (manufacturing rather than total or equipment investment), the fit between the series is somewhat poorer than with GFCF in the manufacturing sector. In particular between 2003 and 2006, manager's estimates from the survey are below the actual investment growth. Also, while the recovery in equipment investment dynamics in 2010 was stronger than manufacturing managers' estimate, for 2011 and 2012, the results from the Investment Survey were significantly above the official Eurostat

<sup>1</sup> Eurostat is currently publishing investment in the manufacturing sector only at country level, while euro-area and EU aggregates are not (yet) available. The shown euro-area estimate is based on the countries' chain-linked figures.

<sup>2</sup> These series are published by Eurostat also at EU and euro-area levels, including data up to 2016 (rather than 2015 as for the estimate presented above).

figures. Since 2013, results are broadly aligned again. Currently, manufacturing managers' views on 2017 (+2.5%) are somewhat less optimistic than the Commission's Autumn forecasts for both total investment (+3.9%)<sup>3</sup> and investment in equipment (+3.8%). For 2018, manufacturing managers' expectations (+4.3%) are broadly in line with the Commission's Autumn forecasts for total (+3.9%) and equipment investment (+4.6%).

**Graph 2.2: Investment growth in the euro area (annual changes in %, in volumes)**



Note: Total and equipment investment data for 2017 and 2018 are Commission's Autumn 2017 forecasts.

\*Mar/Apr year t surveys, managers' assessment of investment in year t-1.

Source: Commission services.

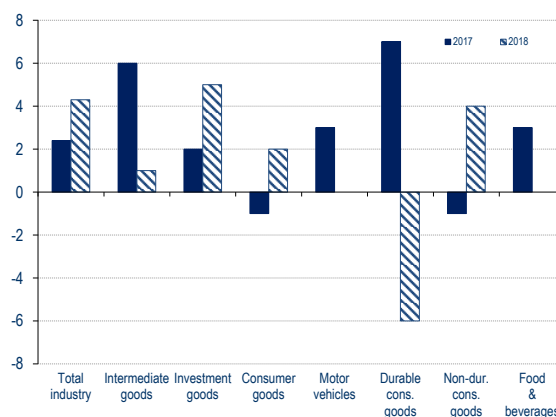
## Investment dynamics by sectors in the euro area

The sectoral breakdown of the survey (see Graph 2.3) shows that for 2017 the only decrease in investment is reported by managers in the consumer goods sector (-1.0%), while the other sectors posted either slight (+2.0% in investment goods) or strong increases (+6.0% in intermediate goods). Focussing on the drivers inside the broad sectors, the slight decrease in the consumer goods sector is due to firms producing non-durable consumption goods. Among those, however, managers in the sub-sector "food and beverages" reported an increase in investment. Also firms specialised in durables reported a marked growth in their investments. For the investment goods sector the branch 'manufacturing of motor vehicles'

reports a solid increase in investment in 2017. Based on managers' replies on factors influencing their investments, it appears that 'other factors' - such as policy of the public authorities - became much more stimulating in 2017 than in previous years. It is possible that important investment has been made to comply with more stringent emission regulations.

For 2018, managers in all sectors (intermediate, investment and consumer goods) expect to increase their investment (by 1.0%, 5.0% and 2.0%, respectively). At sub-sector level, managers in the motor vehicle and food and beverages sectors expect investments to remain stable at 2017 levels, while a marked decrease is expected for durable consumer goods.

**Graph 2.3: Surveyed change of investments in the euro area by sectors (annual % changes)**



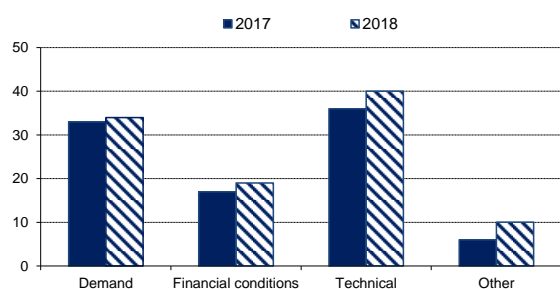
Source: Commission services.

## Factors influencing investments

The autumn Investment Survey also provides information on the factors influencing investment, namely: demand, financial resources (availability and cost of financing, opportunity costs of investment, etc.), technical (e.g. technological developments and the availability of labour) and other factors (e.g. taxation and the possibility of moving production abroad).

<sup>3</sup> Available data for total investment in the first three quarters of 2017 indicate annual growth rates of +3.4% for the EA and 3.5% for the EU.

**Graph 2.4: Factors influencing investment in the euro area (balance statistic\*)**



\*Balances are the weighted averages of the percentages of answers describing each factor as 'very stimulating' (coefficient 1), 'stimulating' (0.5), 'limiting' (-0.5) and 'very limiting' (-1).  
Source: Commission services.

For both 2017 and 2018, all factors are reported as distinctly stimulating investment in the euro area (see Graph 2.4). Overall, the investment climate appears at its healthiest in ten years.

### Investment structure

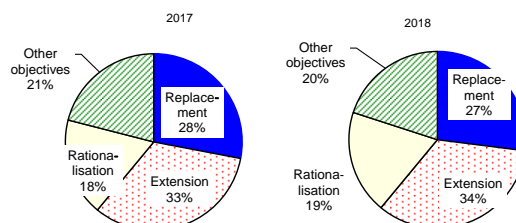
In order to get a more granular picture of the structure of investments, firms are also asked to assign their investments to four categories: replacement of worn-out plant or equipment, extension of production capacity, investment designed to streamline production (rationalisation), and other investment objectives (pollution control, safety, etc.).

In times of economic upswings, one would expect that investments are more geared towards the extension of production capacity than during downturns, where they are likely focused on replacement of worn-out equipment and/or rationalisation. It can indeed be shown that the relative share of investments that firms report as serving extension purposes is positively correlated with the growth rate in Gross Fixed Capital Formation.

Graph 2.5 shows that some 33% of overall investment was dedicated to the extension of production sites. This is 2 percentage points higher than what was reported in the autumn 2016 survey for investment in 2016. At the same time, this only corresponds to the average percentage over the past 20 years and is still one percentage point below the average in the ten years before the 2008 crisis. For 2018, the share of extension investment is expected to return to this pre-crisis benchmark of 34%, which suggests that managers finally experience and expect a more favourable economic environment.

The share of investment dedicated to replacement and rationalisation decreased in 2017 compared to 2016, by 2 and 3 percentage points respectively. Their combined share is expected to stay roughly constant in 2018.

**Graph 2.5: Investment structure in the euro area (percentage of total investment)**



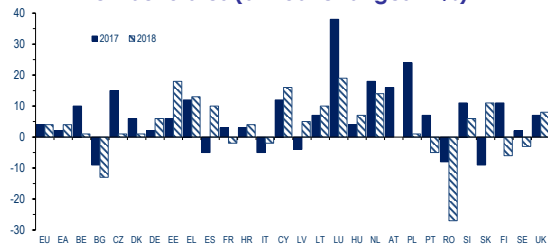
Source: Commission services.

### Developments by country

At country level, managers in most countries reported an increase in real investment for both 2017 and 2018 (see Graph 2.6). However, despite four years of Europe-wide recovery, there are still six countries, in which managers reported a decline in investments for 2017. Concerning the two largest economies reporting negative investment growth, i.e. Italy and Spain, it has to be noted that in both countries most of the factors influencing investment are assessed as supportive in 2017 (this is particularly true for Spain where all the factors are very supportive); therefore it is highly probable that the managers' assessment will be revised up in the next survey. In addition, in the case of Italy, the historic records of managers' assessment of investment growth in the autumn survey show a persistent negative bias compared to hard data and should thus not necessarily be taken at face value. In any case, Italian managers' expectations for 2017 have significantly improved compared to one year ago, when they reported an expected hefty double-digit decrease

The graphs in the annex to this section compare large Member States' investment survey results to the Commission's Autumn forecasts for GFCF and equipment investment.

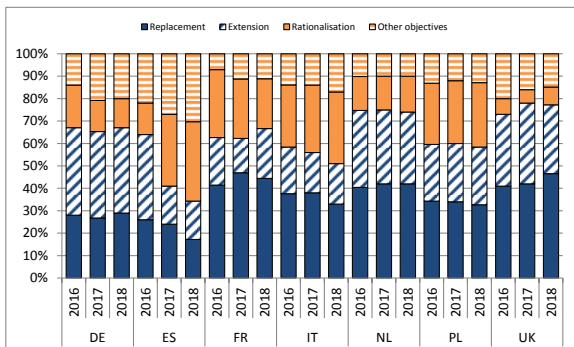
**Graph 2.6: Surveyed change of investments in the EU Member States (annual changes in %)**



Source: Commission services.

The structure of investment in 2017 varies across countries (see Graph 2.7). Investment has predominantly served extension purposes only in Germany; however, the share is large also in the Netherlands and the UK. In the latter two countries as well as in France, Italy and Poland investment has been driven mainly by replacement needs, while in Spain investments have been dominated by rationalisation necessities. While the picture remains broadly the same for 2018, the share of extension investment is expected to increase in France, and decrease in the UK.

**Graph 2.7: Structure of investments in the big Member States in 2016, 2017 and 2018 (share in %)**



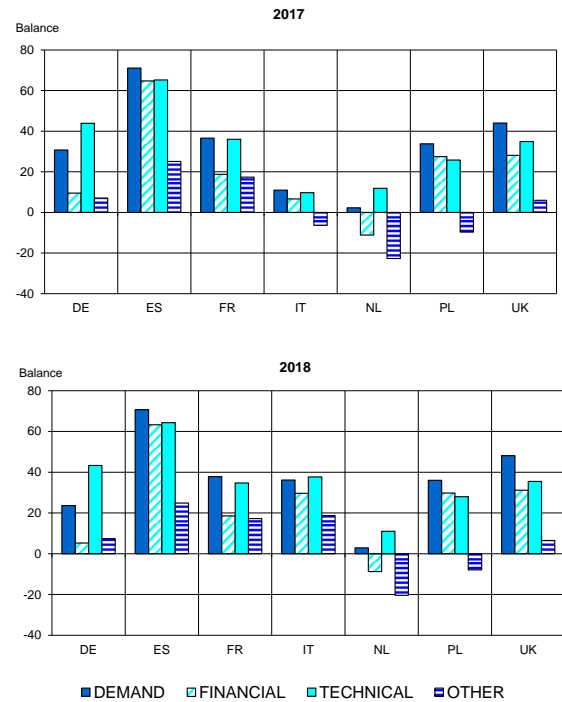
Source: Commission services.

Graph 2.8 shows which factors are stimulating or limiting investment in the largest Member States in 2017 and 2018. The most interesting are arguably demand and financial factors. Demand seems to have exerted a stimulating effect on investment in all seven largest EU Member States, most notably in Spain. One year ago, the expectations of Spanish managers were still that demand would exert a limiting effect on investment in 2017. Also financial conditions are reported to have promoted investment activity in most of the seven countries, the only exception being the Netherlands where financial conditions are assessed to be a limiting factor. While this may appear counterintuitive considering the record-

low interest rates, it should be borne in mind that the survey question on financial conditions asks respondents to not only consider the availability (and costs of) credits, but also the attractiveness (i.e. opportunity costs) of alternative, financial investments.

The described patterns change very little for 2018. The main exception is Italy, where all the factors become very supportive of investment. These positive expectations for 2018 may relativise to some extent the earlier finding that Italian managers currently expect investments to decline somewhat in real terms in 2018.

**Graph 2.8: Factors influencing investment decisions in large EU Member States in 2017 and 2018 (balance statistic)**



Notes: see Graph 2.4

Source: Commission services.

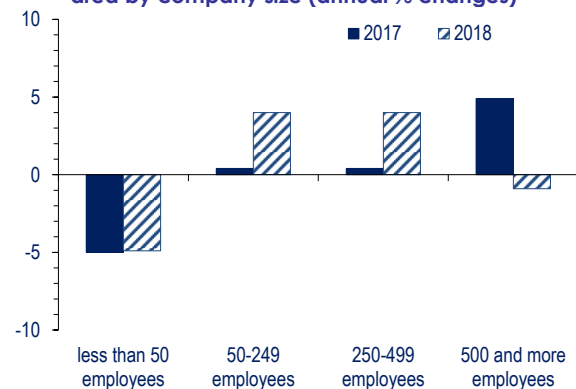
### A closer look at developments in investment by enterprise size

According to the survey the three largest size classes of enterprises (i.e. with more than 50 employees) experienced an expansion in real investment in 2017, the rise being particularly important among the very large enterprises (employing 500 or more persons). By contrast, small firms (employing up to 50 people) experienced a decrease of around 5% (see Graph 2.9). Without excluding possible upward

revisions in the next survey round, the fact that in 2017 investments may have been less important for small than for large firms also emerges from the latest version of the ECB's access-to-finance survey<sup>4</sup>. Even though, according to this survey, results point to positive investment growth in 2017 for all size categories of enterprises, they do observe generally lower growth rates for firms up to 50 employees.

For 2018, the prospects are better for medium and large enterprises, which project to further increase their investments by 4%, while managers in very large firms expect to slightly decrease their investment (by 1%) and small firms expect another 5% decrease in 2018. It has to be noted, however, that compared with their final assessment, small enterprises tend to revise upward their first assessment of investment for the next year.

**Graph 2.9: Surveyed change of investments in the euro area by company size (annual % changes)**



Source: Commission services.

## Conclusions

The results from the autumn Investment Survey in the manufacturing sector indicate that euro-area and EU real investment has risen in 2017 and is foreseen to increase at a higher rate in 2018. While the rate expected for 2017 (2.5%) is below current estimates based on quarterly outcomes and the Commission's Autumn

forecast for both total investment and investment in equipment, manufacturing managers' expectations for 2018 fall within the range of the Commission's Autumn forecasts for total (+3.9%) and equipment investment (+4.6%).

Of the investments reported for 2017, some 33% were dedicated to the extension of production sites, which is a type of investment particularly prevalent in times of economic upswings. While this means an increase compared to 2016, the share still corresponds only to the long-term average over the past 20 years. For 2018, the share of extension investment is expected to increase by another percentage point, to a level that corresponds to the average observed in the ten years prior to 2008.

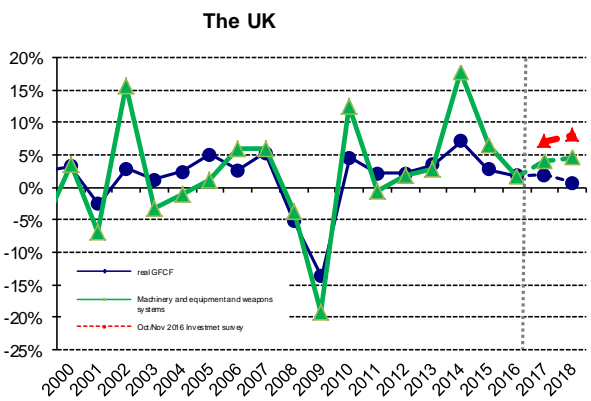
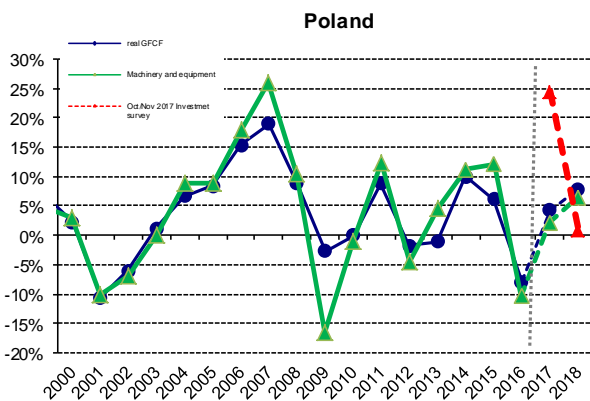
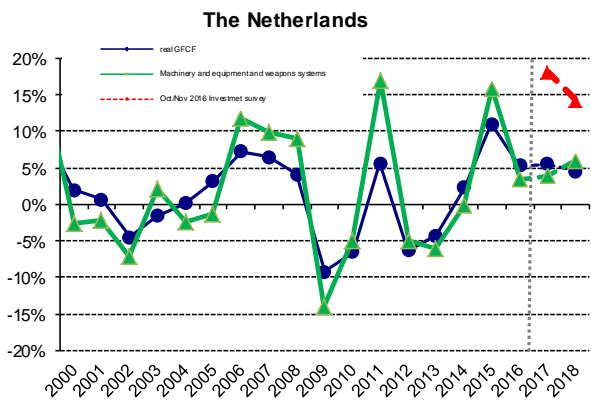
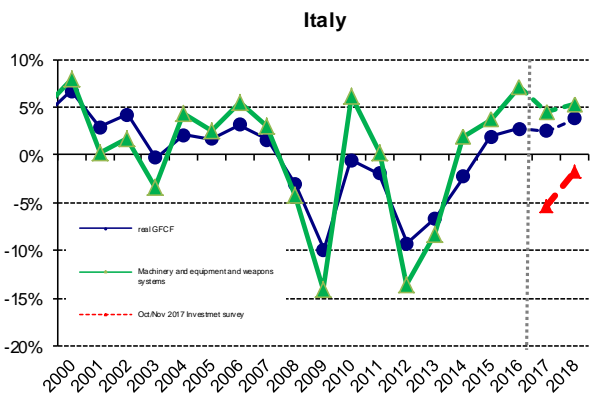
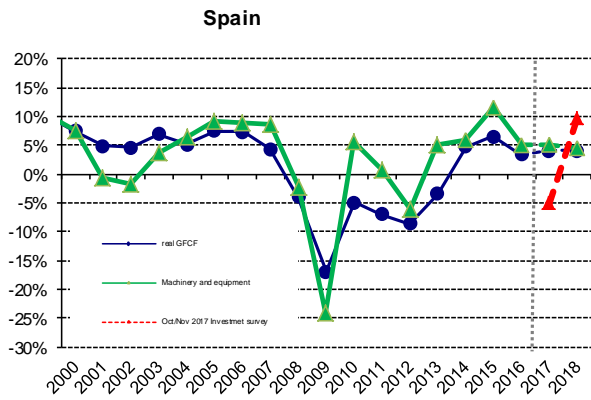
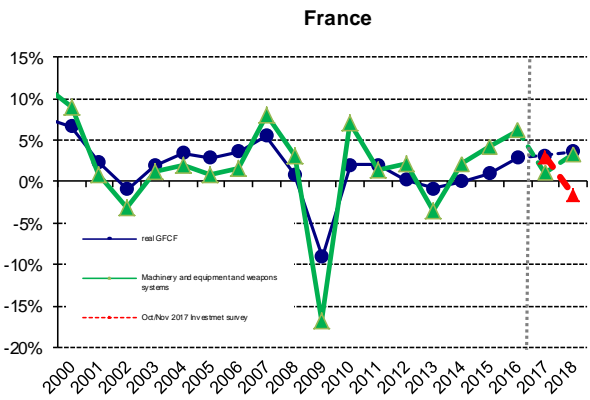
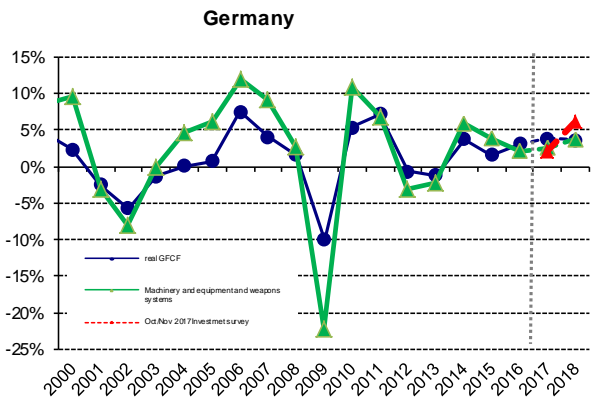
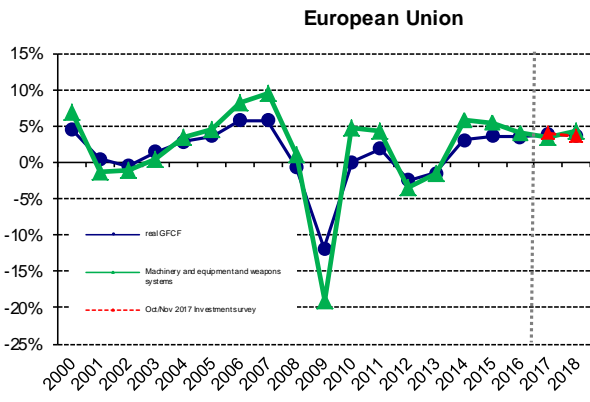
Turning to the factors influencing investment, all the factors (i.e. demand, financial conditions, technical and other factors) were reported to have a stimulating effect in 2017 and to continue to play a positive role in 2018. Overall, the environment for investments appears at its healthiest in ten years.

From a sectoral perspective, the picture is still mixed for 2017, but for 2018, managers in all the three sectors (consumer, investment and intermediate goods) expect to increase their investment. At the country level however, the picture according to this early outlook on the next year remains somewhat mixed, with a number of countries currently still expected to record negative real manufacturing investment growth in 2018.

<sup>4</sup> For further details see:

<https://www.ecb.europa.eu/pub/pdf/other/ecb.accessstofinancesmallmediumsizedenterprises201711.en.pdf?5940ed047df7852b4849e76ed1c47e8b>.

# ANNEX TO SECTION 2



## ANNEX

### Reference series

Confidence indicators	Reference series from Eurostat, via Ecwin (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

### Economic Sentiment Indicator

The economic sentiment indicator (ESI) is a weighted average of the balances of replies to 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. EU and euro-area aggregates are calculated on the basis of the national results and seasonally adjusted. The ESI is scaled to a long-term mean of 100 and a standard deviation of 10. Thus, values above 100 indicate above-average economic sentiment and vice versa. Further details on the construction of the ESI can be found [here](#).

Long time series (ESI and confidence indices) are available [here](#).

### Economic Climate Tracer

The economic climate tracer is a two-stage procedure. The first stage consists of building economic climate indicators, based on principal component analyses of balance series (s.a.) from five surveys. The input series are as follows: industry: five of the monthly survey questions (employment and selling-price expectations are excluded); 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. The economic climate indicator (ECI) is a weighted average of the five sector climate indicators. The sector weights are equal to those underlying the Economic Sentiment Indicator (ESI, see above).

In the second stage, 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 normalised (zero mean and unit standard deviation). 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 and 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. In order to make the graphs more readable, two colours have been used for the tracer. The darker line shows developments in the current cycle, which in the EU and euro area roughly started in January 2008.



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(EU Candidate & Potential Candidate Countries' Economic Quarterly)
- [http://ec.europa.eu/economy\\_finance/publications/cycle\\_indicators/index\\_en.htm](http://ec.europa.eu/economy_finance/publications/cycle_indicators/index_en.htm)  
(European Business Cycle Indicators)



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