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# European Business Cycle Indicators

3<sup>rd</sup> Quarter 2017

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# European Business Cycle Indicators

## 3<sup>rd</sup> Quarter 2017

### Special topic

- The effect of elections on consumer confidence in Europe

This document is written by the staff of the Directorate-General for Economic and Financial Affairs, Directorate A for Policy, Strategy and Communication, Unit A3 – Economic Situation, Forecasts, Business and Consumer Surveys.

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**CONTENTS**

**OVERVIEW..... 6**

**1. RECENT DEVELOPMENTS IN SURVEY INDICATORS ..... 7**

    1.1. EU and euro area..... 7

    1.2. Selected Member States..... 13

**2. SPECIAL TOPIC: THE EFFECT OF ELECTIONS ON CONSUMER CONFIDENCE IN EUROPE..... 18**

**ANNEX ..... 27**

## OVERVIEW

### Recent developments in survey indicators

- Following significant gains over the second quarter of 2017, the euro-area (EA) and EU Economic Sentiment Indicators (ESI) continued rising throughout the third quarter, albeit at a somewhat slower pace. With gains of 1.9 (EA) and 1.7 (EU) points, the last three months lifted both indicators to a level of 113.0 points, which is a new 10-year high.
- The positive results in the euro area were driven by mildly improving industry and services confidence. Sentiment in construction and among consumers, by contrast, stayed broadly flat, while retail trade confidence deteriorated somewhat. At EU-level, the sectoral confidence indicators advanced only marginally, with the exception of slightly more noticeable upticks in industry and services.
- Also from a country perspective, developments compared to June were generally positive. Among the seven largest EU economies, 2017Q3 saw economic sentiment significantly brightening in Italy (+4.8) and, less so, in France (+1.7), Poland (+1.4), the Netherlands (+1.1) and Spain (+1.0). Only sentiment in Germany (+0.5) and the UK (-0.1) remained essentially flat.
- Capacity utilisation in manufacturing increased for the fifth consecutive quarter (+0.6 percentage points in the euro area, +0.5 percentage points in the EU). Currently, capacity utilisation is at 83.2% (EA) / 82.9% (EU), i.e. clearly above the two regions' respective long-term averages of 81.0% and 80.8%. Also capacity utilisation in services saw solid increases of 0.8 (EA) and 0.5 (EU) points. The current rates of 90.2% (EA) and 90.1% (EU) correspond to levels above the respective long-term averages (calculated from 2011 onwards) of 88.3% and 88.5% respectively.

### Special topic: The effect of elections on consumer confidence in Europe

This quarter's special topic seizes the occasion of the 'super election year 2017' to take a closer look at the effect of national elections on consumer confidence. The results of the statistical analysis suggest that elections cause a temporary surge in optimism among French consumers, which, however, vanishes quickly after the elections. There is also some evidence of a similar reaction of Austrian consumers to national elections. For the other eleven countries analysed, the statistical method fails to distil any noticeable election effect.

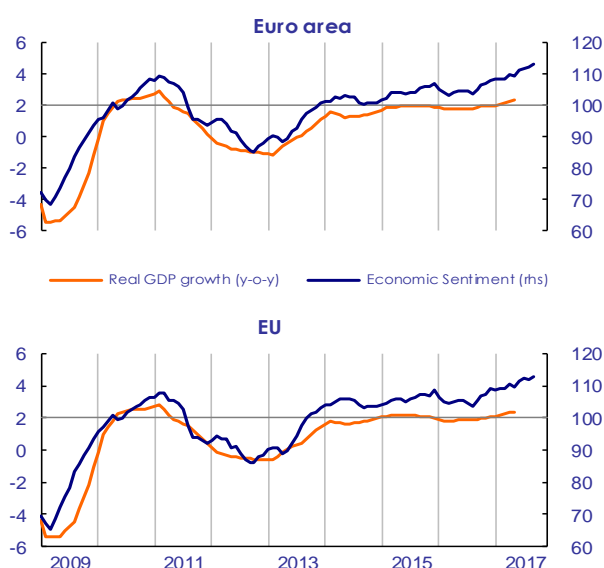
A possible explanation for the clear-cut results in France is hypothesised to lie in the French political system. With the president having more executive/legislative powers than in countries headed by a prime minister/chancellor and elections traditionally delivering one-party majorities, the belief among French voters that elections can really change things for better might arguably be stronger than in other European countries.

# 1. RECENT DEVELOPMENTS IN SURVEY INDICATORS

## 1.1. EU and euro area

Following significant gains over the second quarter of 2017, the euro-area (EA) and EU Economic Sentiment Indicators (ESI) continued rising throughout the third quarter, albeit at a somewhat slower pace (see Graph 1.1.1). With gains of 1.9 (EA) and 1.7 (EU) points, the last three months lifted both indicators to a level of 113.0 points, which is just 0.3 (EA) to 1.5 (EU) points shy of the indicators' pre-crisis peaks of May 2007.

Graph 1.1.1: Economic Sentiment Indicator

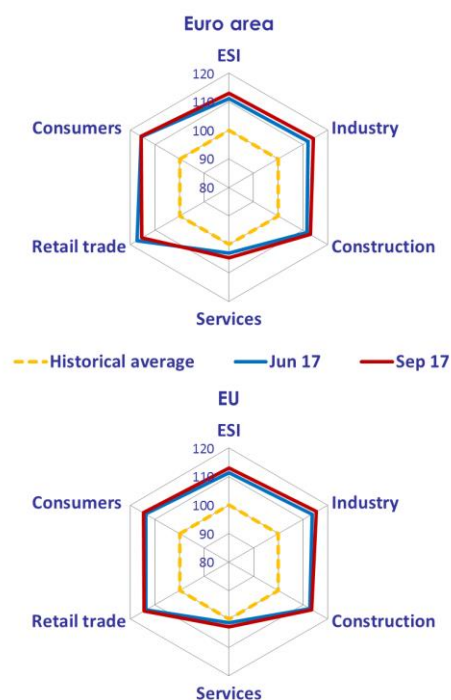


Note: The horizontal line (rhs) marks the long-term average of the survey indicators. Confidence indicators are expressed in balances of opinion and hard data in y-o-y changes. If necessary, monthly frequency is obtained by linear interpolation of quarterly data.

In line with the upbeat ESI results, Markit Economics' Composite PMI for the euro area posted levels last reached in spring 2011 and associated with buoyant business activity. While the PMI results for 2017Q3 did not hint at a further improvement in sentiment, they point to a continuation on a high level. Similarly, after about a year of relentlessly surging confidence, the Ifo Business Climate Index (for Germany) marked a new all-time

high in July, but receded somewhat in the following two months.

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 2017Q3 improved mildly in industry and services, while it remained broadly unchanged in construction and among consumers. Sentiment in retail trade, by contrast, deteriorated somewhat (see Graph 1.1.2). At EU-level, the sectoral confidence indicators advanced only marginally, with the exception of slightly more noticeable upticks in industry and services.

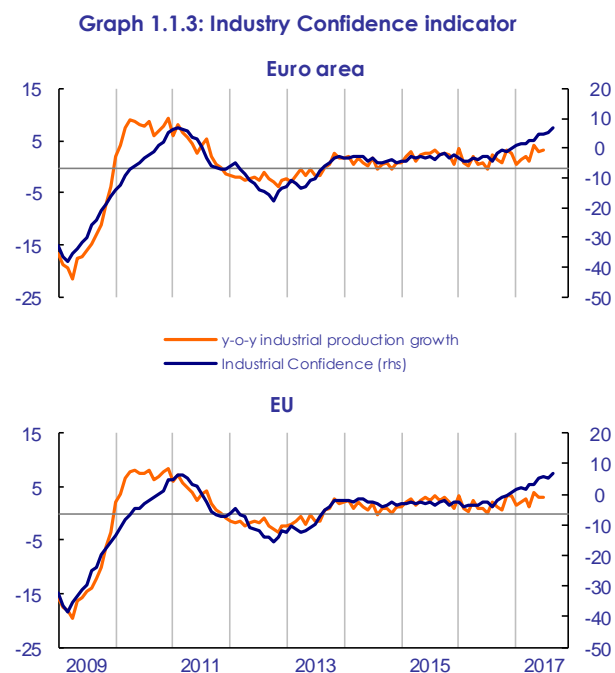
In terms of levels, all euro-area and EU confidence indicators, barring services confidence, are notably above their respective long-term averages. What is more, abstaining from retail trade and (EU) services confidence,

2017Q3 saw all sectoral indicators mark their highest levels in six years or more.

Among the seven largest EU economies, 2017Q3 saw economic sentiment significantly brightening in Italy (+4.8) and, less so, in France (+1.7), Poland (+1.4), the Netherlands (+1.1) and Spain (+1.0). Sentiment in Germany (+0.5) and the UK (-0.1) remained essentially flat.

## Sector developments

Throughout 2017Q3, **industrial confidence** in both the euro area and the EU continued the upward trend prevailing since autumn last year, ending the quarter 1.6 (EU) and 2.1 (EA) points higher than the preceding one. As illustrated by Graph 1.1.3, industry confidence is abundant by historic standards, at levels last seen in June 2007 (EU) / February 2011 (EA).

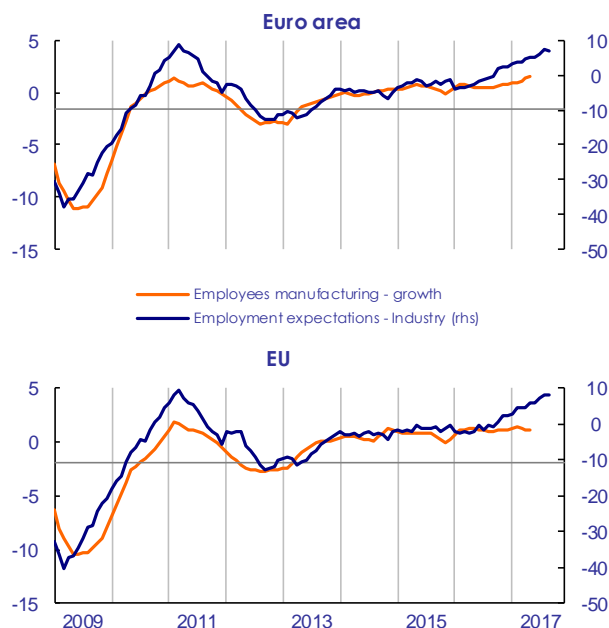


The rise of the confidence indicators was fuelled by managers' significantly brighter production expectations and, to a lesser extent, their mildly improved assessments of order books, while the appraisals of firms' stocks of finished products remained virtually unchanged.

Of the components not included in the confidence indicators, managers' views on export order books and past production were also more upbeat.

Euro-area and EU selling price expectations saw significant upward-revisions in 2017Q3, which (more than) undid the downward corrections of the previous quarter. Meanwhile, managers' employment expectations continued brightening, perpetuating the upward trend that started at the beginning of 2016 (see Graph 1.1.4).

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



Focussing on the seven largest EU economies, a comparison of June and September readings shows solid improvements in the ESIs of Italy (+3.3), Germany (+2.4) and France (+2.3), as well as more tepid ones in Spain (+1.4), Poland (+1.2) and the Netherlands (+0.6). The only exception is the UK where sentiment clouded over (-2.3).

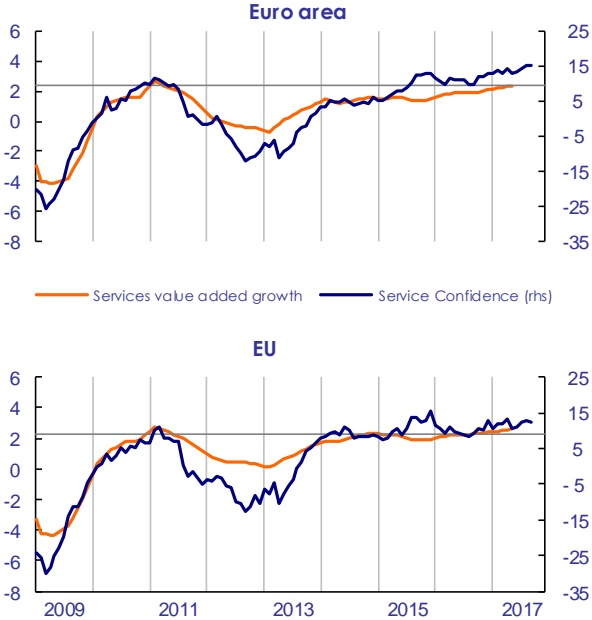
The quarterly manufacturing survey (July) showed **capacity utilisation in manufacturing** to have increased for the fifth consecutive quarter (+0.6 percentage points in the euro area, +0.5 percentage points in the EU). Currently, capacity utilisation is at 83.2% (EA) / 82.9% (EU), i.e. clearly above the two regions' respective long-term averages of 81.0% and 80.8%.

After half a year of see-sawing movements, there was a slight uptick in **services confidence**, with the indicator gaining 2.0 (EA) / 1.7 (EU) points on the quarter. Compared to the other sectors covered by the survey,



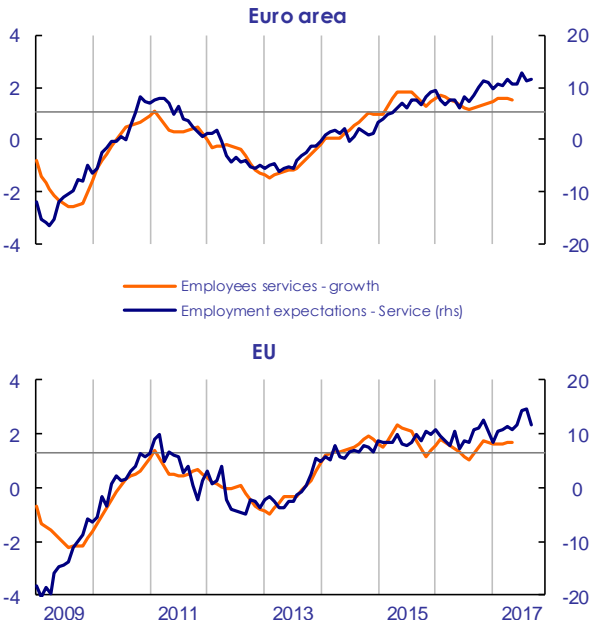
confidence in the services sector exceeds its long-term average by a relatively small margin. Still, the gains in 2017Q3 sufficed to lift euro-area confidence to a level last seen in October 2007 (see Graph 1.1.5).

Graph 1.1.5: Services Confidence indicator



(EU) points. The current rates of 90.2% (EA) and 90.1% (EU) correspond to levels above the respective long-term averages (calculated from 2011 onwards) of 88.3% and 88.5% respectively.

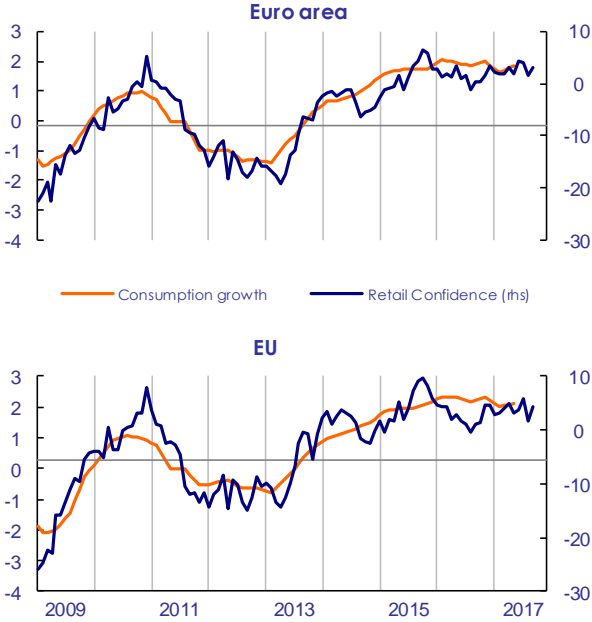
Graph 1.1.6: Employment - Services Confidence indicator



Looking at the components of services confidence, its positive evolution can be mainly attributed to managers' improved demand expectations and more upbeat assessments of past demand. The past business situation, by contrast, was viewed only slightly better in the euro area, while its appraisals in the EU remained flat.

**Retail trade** confidence eased slightly in the euro area (-1.4), while it moved broadly sideways in the EU (+0.5). Both indicators remained comfortably above their long-term averages (see Graph 1.1.7).

Graph 1.1.7: Retail Trade Confidence indicator



Compared to the end of 2017Q2, service managers' employment expectations at the end of 2017Q3 are unchanged in the EU, while marginally better in the euro area (see Graph 1.1.6). Meanwhile, selling price expectations saw a clear upward revision in the euro area, as well as a more tentative uptick in the EU.

Among the seven largest EU Member States, confidence in the services sector steamed ahead in France (+5.2), while gaining some momentum in Spain (+2.3), Italy (+1.9), the Netherlands and the UK (both +1.7). Confidence in Poland (+0.2) and Germany (-0.1), by contrast, remained virtually flat.

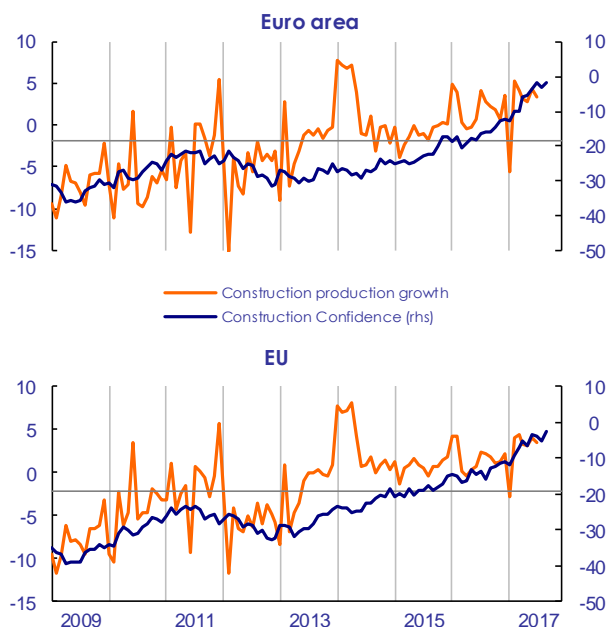
**Capacity utilisation in services**, as measured by the July wave of the dedicated quarterly survey, saw solid increases of 0.8 (EA) and 0.5

While the euro area saw all three components of the confidence indicator ease, EU managers were slightly more upbeat on the past business situation, but did not substantially alter the appraisals of the future business situation and the volume of stocks.

At the level of the seven largest EU economies, confidence rallied in the UK (+9.6), undoing a big chunk of last quarter's hefty losses, while it booked more modest increases in Italy and France (both +1.3). On the other side of the spectrum, Spain (-3.1) and, particularly, Germany (-6.0) posted substantial losses. Sentiment in the Netherlands (-0.9) and Poland (+0.3) remained broadly flat.

**Construction** confidence inched higher in 2017Q3, gaining 1.8 (EA) and 0.9 (EU) points on the quarter. In the euro area, the results were driven by significantly brighter appraisals of firms' current order books, while improvements in employment expectations were more muted. In the EU, both components of the indicator showed only weak upticks.

Graph 1.1.8: Construction Confidence indicator

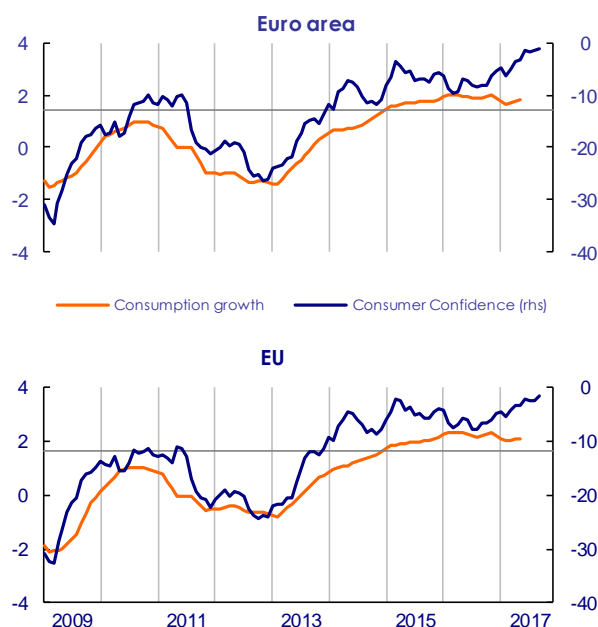


At the level of the seven largest EU economies, developments in construction confidence were quite diverse, with France (+5.9), Spain and Poland (both +3.1) sending very positive signals, while Germany (-2.2) and the UK (-4.3) saw sentiment ease. Italian (+0.3) and Dutch (-0.7) confidence remained virtually flat.

**Consumer confidence** ended the quarter roughly flat, with readings in September 0.1 (EA) / 0.6 (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 signalled most changes in respect of their perception of the general economic situation (more benign) and unemployment developments over the next 12 months (much grimmer). Consumers' expectations on their personal financial situation, by contrast, remained virtually flat and their savings expectations improved slightly.

Graph 1.1.9: Consumer Confidence indicator



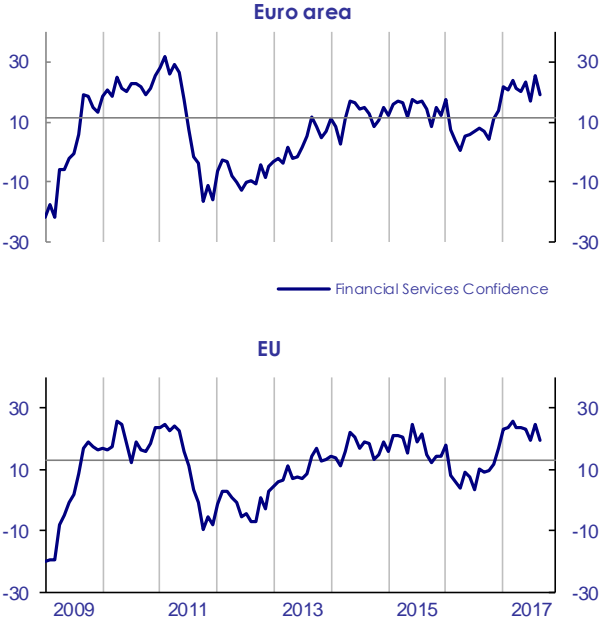
In the seven largest EU economies, consumer confidence rallied in Italy (+9.7) and booked moderate improvements in the UK (+2.2) and Poland (+1.9), while it eased in Germany (-1.1), as well as Spain (-2.5) and shed strongly in France (-7.9). Dutch confidence was comparatively inert (+0.9).

Confidence in the **financial services** sector (not included in the ESI) dipped on the quarter (-4.4 in the euro area; -3.7 in the EU). Considering the characteristic volatility of the indicator though, the 2017Q3-results can be interpreted as a continuation of the broad sideways movement already observed in the first half of the year (see Graph 1.1.10).

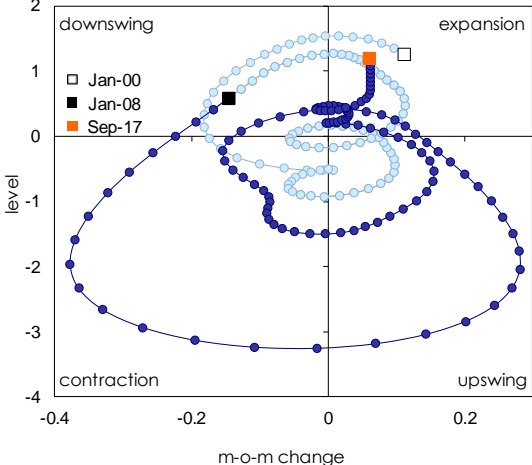
In both regions, all components of the confidence indicator, namely demand expectations, the past business situation and, in particular, past demand were appraised more negatively.

they clearly indicate a phase of economic expansion. However, worth highlighting, 2017Q3 saw the euro-area retail trade tracer moving significantly closer to the border with the downswing quadrant and its EU counterpart even crossing that border in September.

Graph 1.1.10: Financial Services Confidence indicator

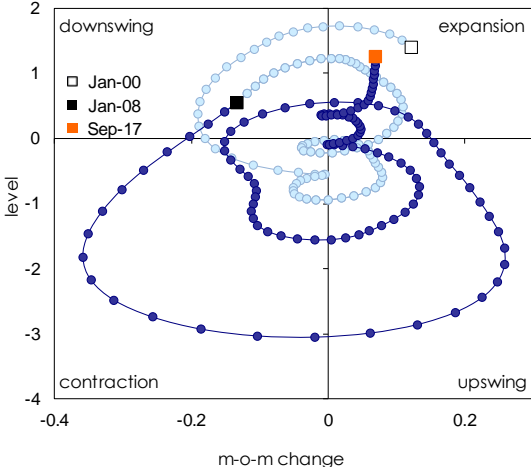


Graph 1.1.12: EU Climate Tracer



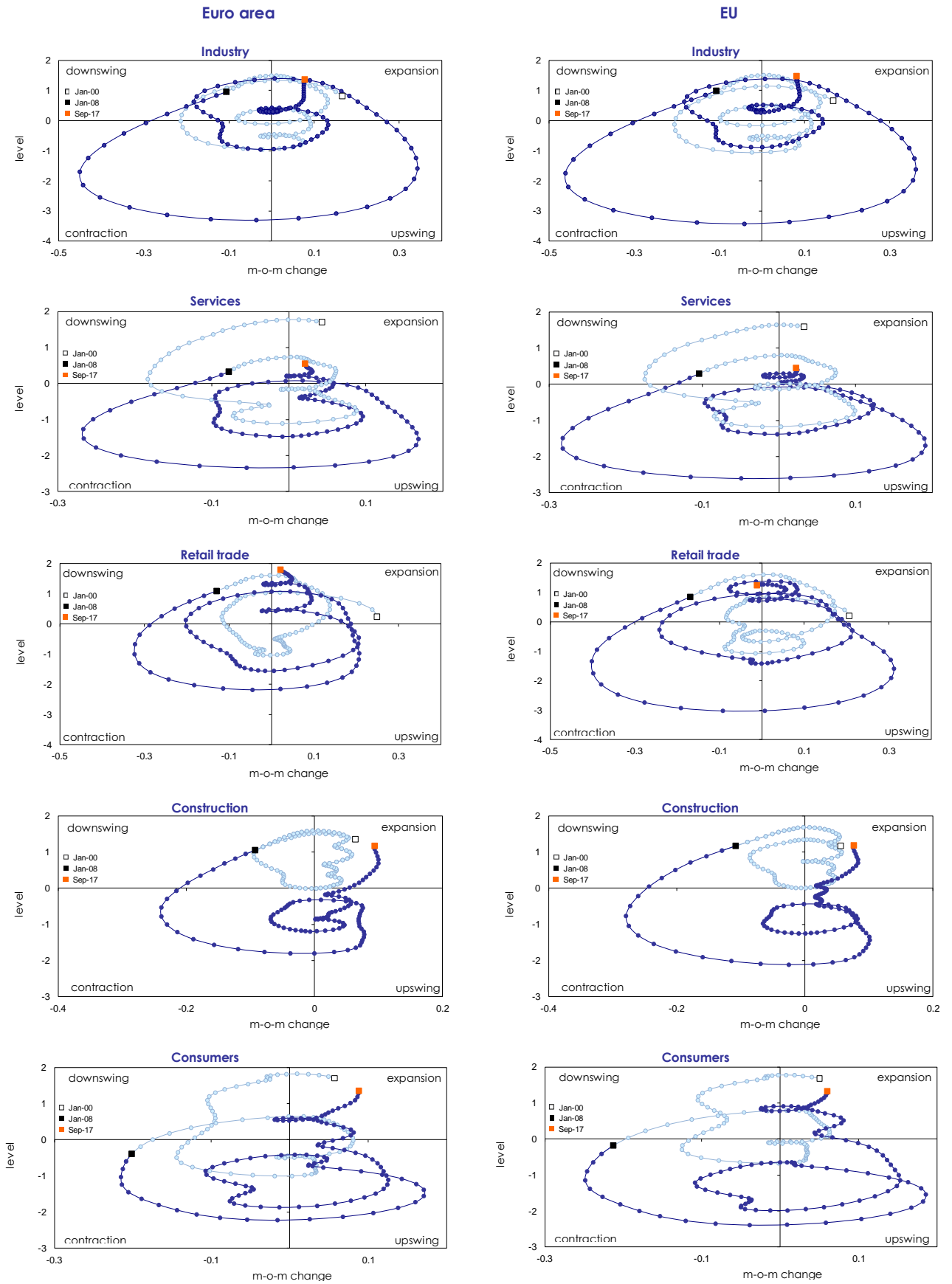
Reflecting the record-high level of overall sentiment, both the euro area and EU **climate tracers** (see Annex for details) finished 2017Q3 firmly in the expansion quadrant, increasing the distance from the upswing area yet a little more compared to the end of 2017Q2 (see Graphs 1.1.11 and 1.1.12).

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

Graph 1.1.13: Economic climate tracers across sectors

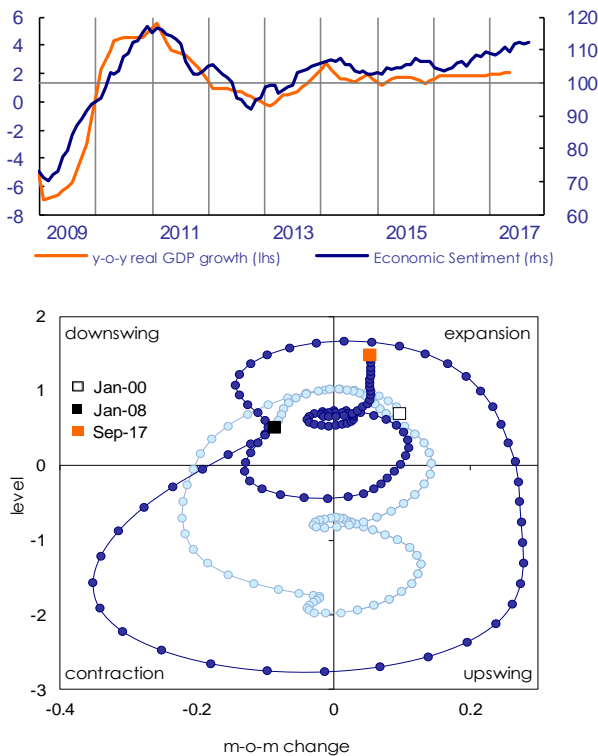


## 1.2. Selected Member States

Over the third quarter of 2017, economic sentiment improved significantly in Italy (+4.8) and, less so, in France (+1.7), Poland (+1.4), the Netherlands (+1.1) and Spain (+1.0). Sentiment in Germany (+0.5) and the UK (-0.1) remained essentially flat.

In **Germany**, sentiment was broadly flat throughout the quarter, the national ESI finishing 2017Q3 only 0.5 points higher than 2017Q2. The quarter's highest reading, 112.5 points in July, corresponds to the ESI's best score since June 2011. The indicator remained comfortably above its long-term average of 100. In terms of the climate tracer (see Graph 1.2.1), the German economy asserted its position in the expansion quadrant.

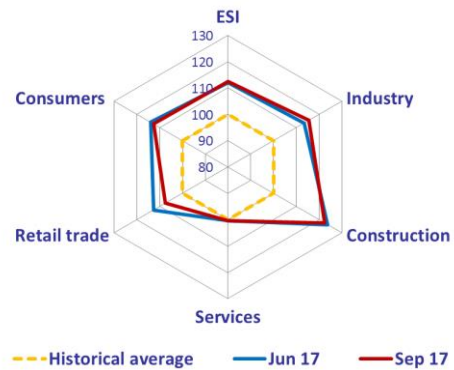
Graph 1.2.1: Economic Sentiment Indicator and Climate Tracer for Germany



From a sectoral perspective, industry confidence improved, whereas the construction and services sectors, as well as consumers posted broadly flat readings. Confidence in retail trade, by contrast, clouded over. In line with the ESI, all sectoral confidence indicators, except for services, were at levels well in excess

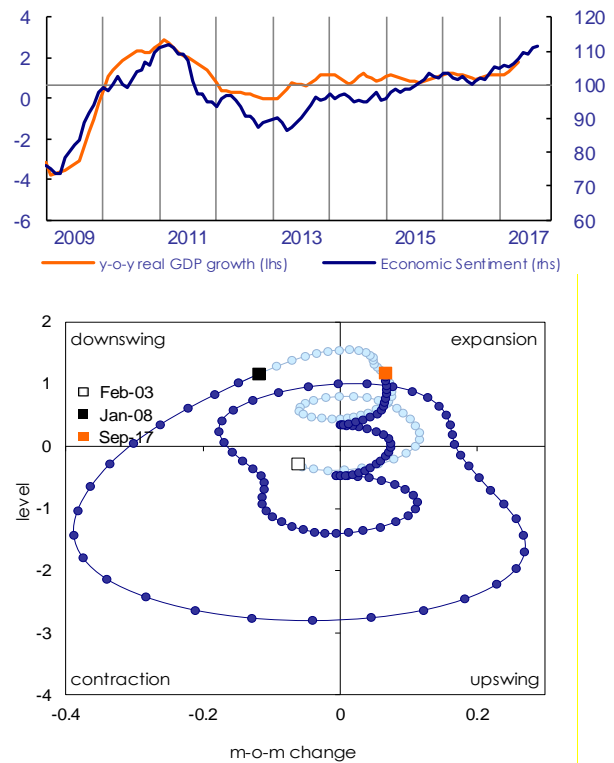
of their respective historical averages (see Graph 1.2.2).

Graph 1.2.2: Radar Chart for Germany



Sentiment in **France** continued last quarter's upward trend, albeit at a slower rate, gaining 1.7 points on the quarter. At 111.2 points, the headline indicator is not only firmly above its long-term average of 100, but also at the highest level since March 2011. As a corollary, the French climate tracer remained deep in the expansion quadrant (see Graph 1.2.3).

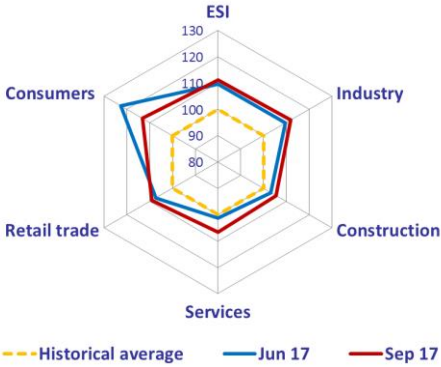
Graph 1.2.3: Economic Sentiment Indicator and Climate Tracer for France



A look at the French radar chart (see Graph 1.2.4) reveals that all surveyed business sectors, and particularly services, signalled brighter

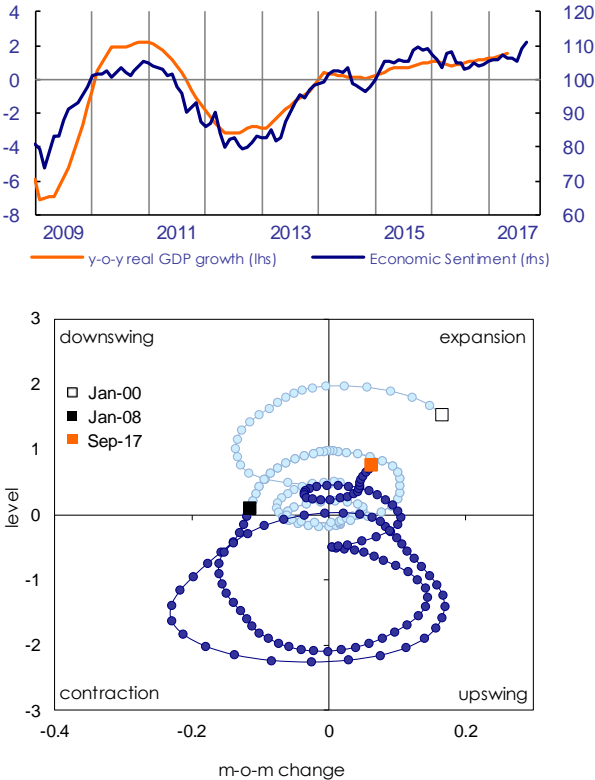
sentiment, while consumer confidence took a dive. The latter completely neutralised June's surge in consumer confidence, which had arguably presented a reaction to the results of the French elections in May. In terms of levels, sentiment exceeded its long-term average in all surveyed parts of the economy.

Graph 1.2.4: Radar Chart for France



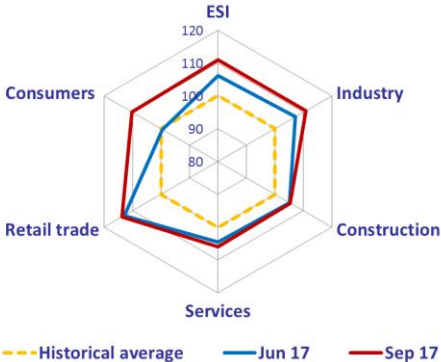
The **Italian** ESI powered ahead in 2017Q3, gaining 4.8 points on the quarter and putting an end to the indicator's downward tendency observed in the first half of 2017. At 110.9 points, the Italian ESI is not only clearly above its long-term average of 100, but also at its highest reading since March 2007. In line with the positive developments, 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



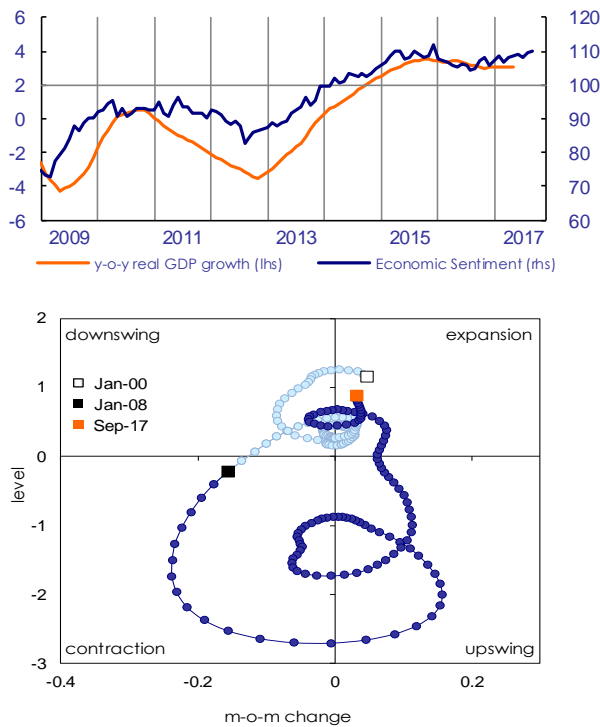
Looking at the evolution across sectors (see Graph 1.2.6), buoyant sentiment was fuelled by rallying consumer confidence and, to a lesser extent, positive signals from industry, which contrasted with the broadly flat readings posted by the other surveyed sectors. All sectoral indicators are clearly outperforming their respective historical averages. The latter is a new finding in respect of consumer confidence, which had previously hovered around levels rather unexceptional by historical standards.

Graph 1.2.6: Radar Chart for Italy



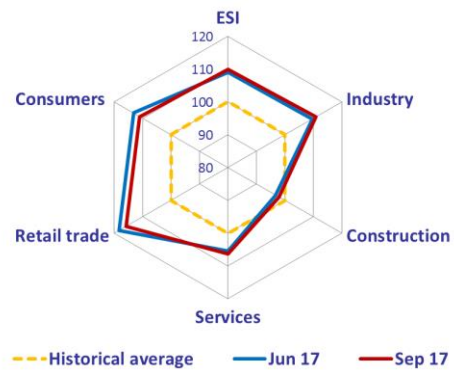
The **Spanish** ESI went broadly sideways, finishing 2017Q3 just 1 point up compared to the end of 2017Q2. At 109.9 points, the indicator continues being firmly above its long-term average of 100. Meanwhile, the country's climate tracer stayed in the expansion area (see Graph 1.2.7), but moved somewhat closer to the border with the downswing quadrant.

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



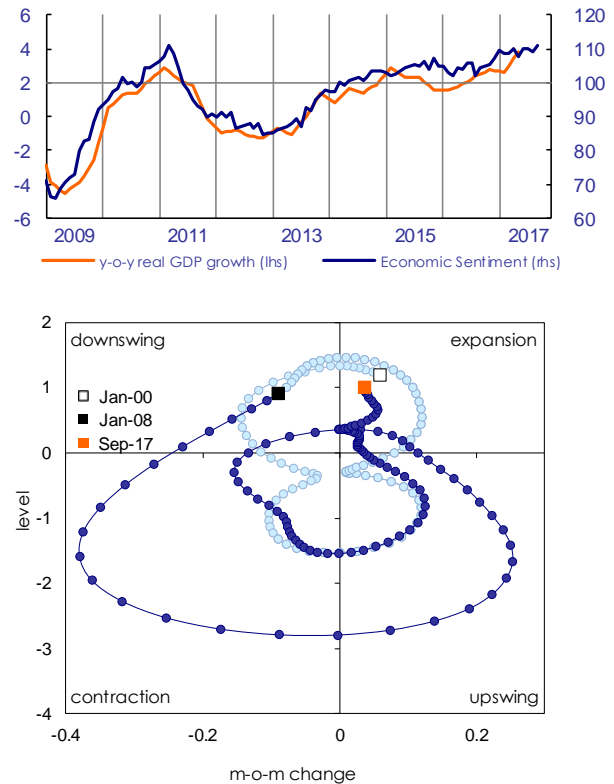
As the radar chart highlights (see Graph 1.2.8), consumer and retail trade confidence inched lower, but the effect was fended off by (extremely mild) upticks in the remaining sectors. As in 2017Q2, sectoral confidence, with the exception of the construction sector, remained high by historic standards.

**Graph 1.2.8: Radar Chart for Spain**



**Dutch** sentiment continued the broad sideways movement which had already characterised the first half of the year. Thanks to a significant increase in September, the country's ESI nevertheless gained 1.1 points on the quarter and its current level of 110.9 points marks a new 6 1/2-year high, which is well in excess of the indicators' long-term average of 100. The Dutch climate tracer (see Graph 1.2.9) remained in the expansion area, but moved a bit closer to the intersection with the downswing area.

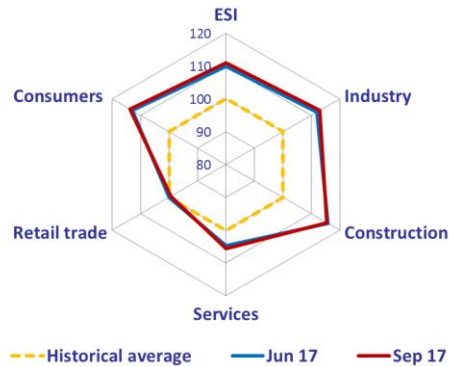
**Graph 1.2.9: Economic Sentiment Indicator and Climate Tracer for the Netherlands**



The Dutch radar chart (see Graph 1.2.10) shows the ESI's inertia to have been shared by all sectoral components. Furthermore, its high level

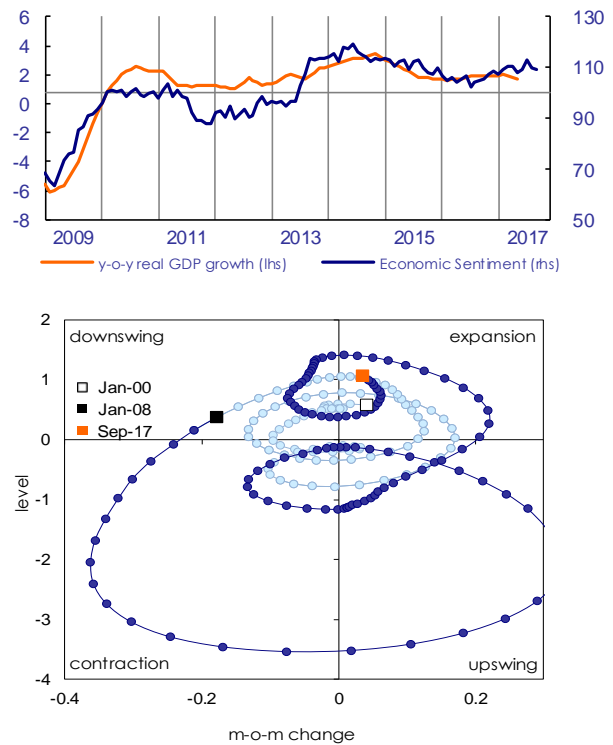
is reflected in industry, construction, consumer and, to a lesser extent, services confidence, which hovered well above their respective historical averages. Only retail trade confidence stayed at a level just normal by historical standards.

Graph 1.2.10: Radar Chart for the Netherlands



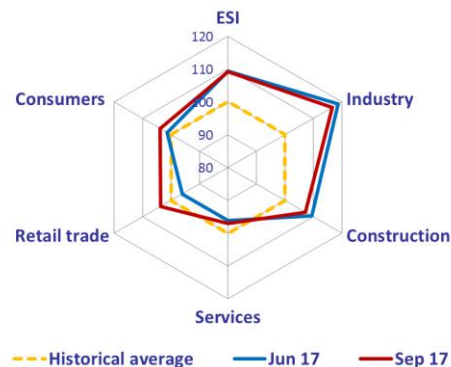
Following a temporary spike in July, which was offset by the following months, sentiment in the **United Kingdom** came in 0.1 points lower on the quarter. The country's ESI thus continued the sideways tendency already observed in 2017Q2. At 109.2 points, the indicator stayed firmly above its long-term average of 100. The slightly lower sentiment sufficed to toss the UK climate tracer (see Graph 1.2.11) mildly in the direction of the downswing area, while it stayed in the upswing quadrant.

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



Focussing on sectoral developments, stronger confidence among consumers and, in particular, retail trade managers, was offset by negative signals from the industry and construction sectors, while services confidence remained broadly flat (see Graph 1.2.12). Same as the ESI, all confidence indicators, with the exception of the services sector, are above their historical averages. The difference is most extreme in industry, while less so among consumers / in retail trade, where 2017Q2 had still seen the sectoral indicators at / below their respective historical averages.

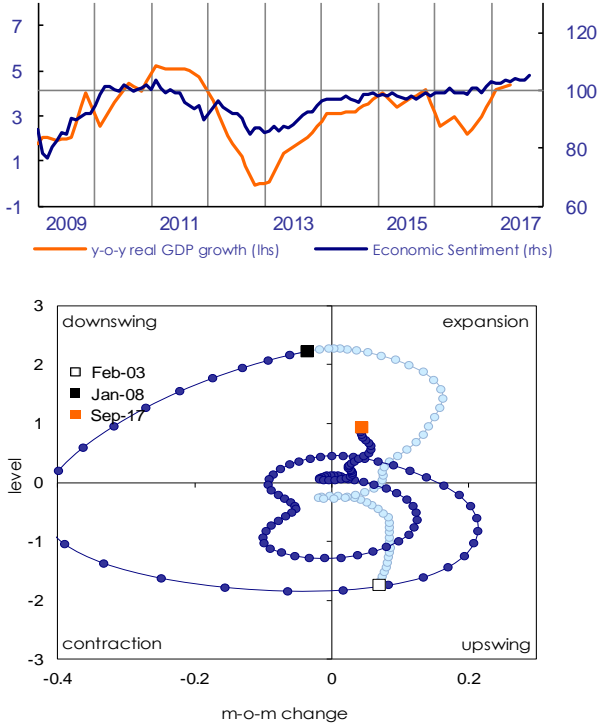
Graph 1.2.12: Radar Chart for the UK



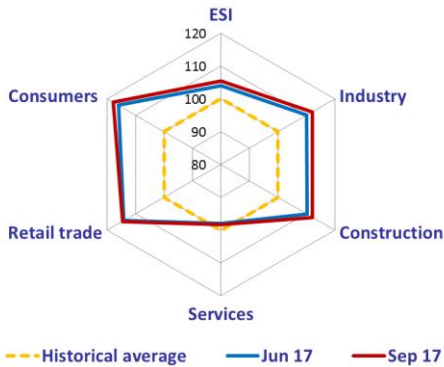


Thanks to a boost in September, **Polish** sentiment, which had followed a broadly flat profile throughout the year, came in 1.4 points higher on the quarter. The indicator's current reading (105.4 points) is moderately above its long-term average. At the same time, the Polish climate tracer remained virtually unchanged in the expansion quadrant (see Graph 1.2.13).

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



**Graph 1.2.14: Radar Chart for Poland**



As the Polish radar chart (see Graph 1.2.14) shows, confidence firmed somewhat in industry, construction and among consumers, while it stayed flat in services and retail trade. Same as in 2017Q2, services remained the only sector posting confidence levels below historical averages.

## 2. SPECIAL TOPIC: THE EFFECT OF ELECTIONS ON CONSUMER CONFIDENCE IN EUROPE

### Introduction

The year 2017 has been characterised by an unusual concentration of important elections across Europe, with potential to set the course for the continent's development for years to come. Besides featuring elections in the three largest EU Member States<sup>1</sup>, 2017 is also a year in which a number of elections arguably have exceptionally high relevance beyond national confines: The French presidential elections, which have been widely perceived as a litmus test for the appeal of populist movements across Europe, as well as the British elections with their bearing on the Brexit negotiations are just two examples that spring to mind.

This quarter's special topic seizes the occasion of the 'super election year 2017' to take a closer look at the effect of national elections on consumer confidence, as measured in the framework of the Joint Harmonised EU Programme of Business and Consumer Surveys (EU BCS). There are two main conceivable types of effects: First of all, with the run-up to elections usually characterised by abundant media coverage of the election campaigns and their promises of a better future, elections have the potential to trigger hopes and optimism among citizens, which translate into (at least temporarily) more upbeat survey results. On the other hand, the ex-ante unknown outcome of elections and/or the intricacies involved in the subsequent government formation might also create uncertainties with possible negative effects on opinion survey data both prior to and after the election day.

The available research on the effect of elections on consumer surveys is rather limited. Most of the few existing studies have

in common that they try to empirically explain consumer confidence (in simple regression or error correction models) by a mix of variables capturing economic fundamentals, as well as dummy variables representing the occurrence of elections. Overall, the results are ambiguous. The French National Institute of Statistics and Economic Studies (Insee, 2017) provides evidence of growing consumer confidence among Frenchmen in the month of, as well as the month following presidential/legislative elections. The effect seems to be short-lived though, with the two following months producing commensurate losses in confidence. Also Caleiro et al. (2011) report a positive effect of elections<sup>2</sup> on the growth rate of consumer confidence, notably in Portugal. Similar results are reported in Vuchelen (1994) for the Belgian case, whereby the positive effect is confined to elections which come unexpected. Outside Europe, Suzuki (1992) shows the percentage of US consumers predicting economic upturns to increase before presidential elections take place.

Those results contrast with Bittencourt et al. (2017), who conclude that elections in Brazil have no independent effect on consumer confidence, as well as de Boef and Kellstedt (2004), who, contrary to Suzuki (1992), fail to distil any effect of US elections on national consumer confidence.

Departing from the geographically patchy evidence of an election effect, this special topic embarks on an analysis of the impact of elections on consumer confidence across a wide, representative sample of EU countries. Concretely, three alternative empirical

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<sup>1</sup> Germany, France, United Kingdom

<sup>2</sup>In their study, the election period is defined as the time-span from ten months / three quarters before the election to the month / quarter following it.

strategies for the identification of election effects are applied to a selection of Northern (Sweden, Denmark), central (Poland, Czech Republic), Southern (Italy, Spain, Portugal) and Western (Germany, France, UK, Netherlands, Belgium, Austria) European countries. The analysis detects significant effects in Austria and, particularly, France, but fails to deliver evidence of an election effect in the remaining countries.

## Empirical strategy

The three empirical strategies applied in this special topic share a number of characteristics which are inspired by the approach taken by Insee (2017).

Firstly, all of them rely on a simple regression explaining some measure of (national) consumer confidence by a number of variables, among which dummy variables flagging the occurrence of elections. While Insee (2017) runs several regressions so as to accommodate different potentially relevant dependent variables (French consumer confidence, as well as three forward-looking survey questions feeding into the aggregate indicator<sup>3</sup>), this article focusses on just one dependent variable, notably how households expect the general economic situation in their country to change over the next 12 months.

The reasons for the choice are threefold: To start with, the most obvious target variable, namely the respective national consumer confidence indicator, is the average of four individual survey questions all of which might react differently to the occurrence of elections. Any election effect on the composite indicator would thus inevitably lead to the question which survey question actually drives the results.

A second consideration is that an election effect, which is hypothesised to either constitute a feeling of optimism triggered by parties' election campaigns or one of uncertainty due to the unknown outcome of the elections, can only be expected to manifest itself in consumers' *expectations*. Questions inquiring past developments or focussing on the present are rather inappropriate for the present analysis.

Finally, the forward-looking question chosen for our analysis should trigger answers which involve, to the highest degree possible, respondents' gut-feeling (rather than being based on facts). We argue that survey questions inquiring macro-economic developments will be answered with less expert-knowledge (thus more gut-feeling) than the competing class of questions focussing on households' private financial situation (their saving expectations, etc.). Among the concepts inquired in the available macro-economic questions<sup>4</sup>, the "general economic situation" has been considered the 'fuzziest' one and therefore been chosen for the present analysis.

A second commonality of all empirical strategies applied in this article concerns the definition of the election dummies. Following Insee (2017), a total of five dummy variables is defined which flag the occurrence of national elections, as well as the preceding and following months ( $m_{-2}$ ,  $m_{-1}$ ,  $m_0$ ,  $m_{+1}$ ,  $m_{+2}$ ). Given that the consumer surveys in the EU BCS framework are conducted over the first two to three weeks of each month, the survey results of a month in which elections take place can reflect consumers' pre-election confidence (if the vote takes place in the last week of the month) or a mixture of pre- and post-election sentiment. To avoid misleading results, we define the reference month for our analysis (dummy  $m_0$ ) as the month following the election, i.e. the first month in which the

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<sup>3</sup> The focus on forward-looking questions is motivated by a graphical inspection which shows only that type of survey question to react (namely peak) at elections. The selected questions cover households' expectations regarding the future standard of living in France, their future personal financial situation and (the reverse of) the future level of unemployment.

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<sup>4</sup> The EU BCS programme features three macro-economic, forward-looking consumer questions covering expected developments in respect of the country's general economic situation, the level of unemployment and inflation (see the EU BCS methodological user guide for more information: [https://ec.europa.eu/info/sites/info/files/bcs\\_user\\_guide\\_en\\_0.pdf](https://ec.europa.eu/info/sites/info/files/bcs_user_guide_en_0.pdf)).

election results are known to all respondents.<sup>5</sup>  $M_{-1}$ , by contrast, represents the month in which an election takes place, but lacks a clear interpretation in terms of whether it captures pre- or post-election effects.

For the definition of the variables, we consider only national parliamentary elections and, in the French case, the second round of presidential elections, as well as legislative ones, provided the latter do not immediately follow a presidential election.

Turning to the three regressions, the **first** one is a replication of the approach taken by Insee (2017). Departing from the observation of a strong co-movement between the level of consumer confidence and year-on-year (y-o-y) purchasing power growth, it assumes that households' *ability* to consume is the main long-run driver of consumer confidence, as well as its component series. The short-run, by contrast, is presumed to be strongly affected by relevant events, such as elections. The approach translates into the following equation

$$\Delta \text{expsit} = \Delta \text{pp}(y-o-y) + m_{-2} + m_{-1} + m_0 + m_{+1} + m_{+2} + u_t \quad (1)$$

where *expsit* is a balance series summarising consumers' expectations in respect of the future general economic situation<sup>6</sup>, *pp*(y-o-y) is the y-o-y growth in purchasing power per household<sup>7</sup> and  $m_{-2}$  to  $m_{+2}$  are the election dummies described above.

The **second** regression pays tribute to the fact that the results generated by equation (1) cast some doubt on the role of purchasing power as

the main long-run driver of consumer confidence, with the former variable being insignificant in a number of country-specific regressions. Rather than controlling for the long-term driver of consumer confidence, the approach taken in the second regression simply excludes long-term fluctuations of the target variable from the analysis. Concretely regression (2) reads

$$\text{expsit} = m_{-2} + m_{-1} + m_0 + m_{+1} + m_{+2} + u_t \quad (2)$$

where *expsit* is the irregular component of the hp-filtered<sup>8</sup> level of consumers' expectations, i.e. the short-run evolution of the variable which remains after excluding its long-run variation. The only explanatory variables used are the five election dummies.

Considering that the first two approaches leave significant chunks of variation in the dependent variable unexplained ( $R^2$  ranging between 0.02 and 0.07), the **third** regression attempts to comprehensively explain short- and long-term variations in consumers' expectations by a selection of economically meaningful variables. The equation reads

$$\text{expsit} = V + m_{-2} + m_{-1} + m_0 + m_{+1} + m_{+2} + u_t \quad (3)$$

where  $V$  is a vector containing relevant variables which a top-down testing approach<sup>9</sup> has shown to be significant. The variables, whose merits have been tested individually for each analysed country, span from hard statistical data<sup>10</sup> like GDP growth and unemployment rates, over financial variables, such as stock indices, to consumers' assessments of other concepts inquired in the framework of the EU BCS consumer survey<sup>11</sup>.

<sup>5</sup> Deviating from that approach, if elections take place on the very first day of a month, the latter is defined as  $m_0$ , rather than the month following the elections.

<sup>6</sup> That is the percentage of positive minus the percentage of negative replies to the question "How do you expect the general economic situation in this country to develop over the next 12 months?".

<sup>7</sup> The variable, which is not readily available in official statistics, is operationalised as deflated gross disposable income (received) of households and non-profit institutions serving households (NPISH). The applied deflator is calculated as the ratio of nominal and real household and NPISH consumption expenditure. The quarterly purchasing power variable is transformed into y-o-y changes, before being rendered monthly by linear interpolation.

<sup>8</sup> Based on graphical inspection, the smoothing parameter lambda has been set equal to 25. The main conclusions of our analysis remain valid when varying the parameter.

<sup>9</sup> The criteria to retain a given variable were a statistical significance at the 5% level or lower, as well as an economically intuitive sign of the variable's coefficient.

<sup>10</sup> The full list of hard data tested comprises GDP growth (y-o-y and q-o-q), inflation rates, house price and rent price indices, unemployment rates.

<sup>11</sup> For a full list of questions from the consumer survey, see the EU BCS methodological user guide, pp 36-38:

The dependent variable, *expsit*, is the *level* of consumers' expectations for the future general economic situation, while the explanatory variables  $m_{-2}$  to  $m_{+2}$  are, again, the election dummies.

**Results**

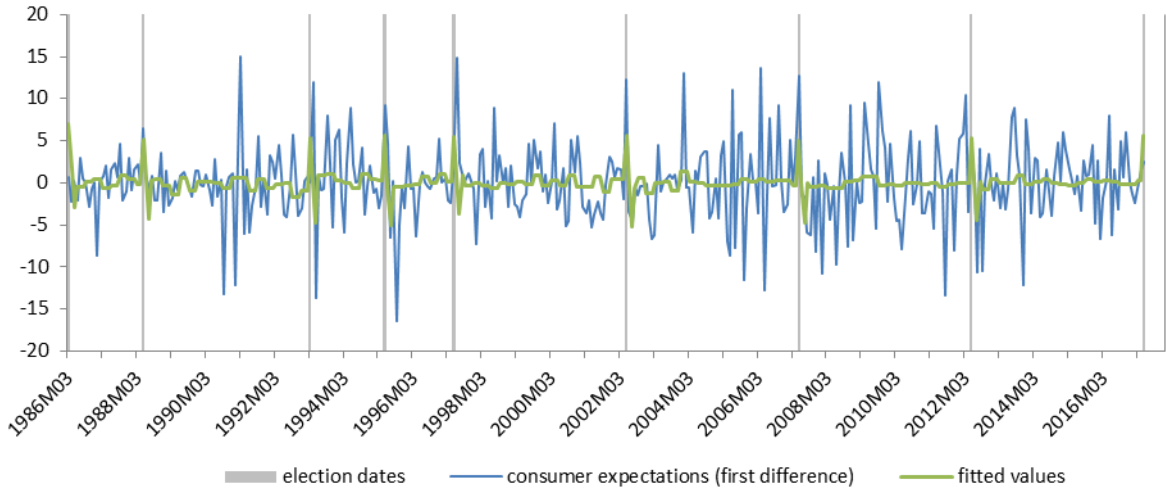
The **first** empirical strategy (equation (1)) only delivers convincing indications of an election effect in France.

**Table 2.1. – Regression results for equation (1) - France**

	coefficients	p-values*
$\Delta pp(y-o-y)$	1.6	0.01
$m_{-1}$	5.3	0.00
$m_{+1}$	-4.6	0.01
$R^2$		0.07

\* p-values derived from heteroskedasticity- and autocorrelation-consistent standard errors (Newey-White)  
 Sample: 1986m1 to 2017m5  
 Source: European Commission calculations

**Graph 2.1. – Actual and fitted values for regression equation (1) - France**



Sources: European Commission calculations

As shown in Table 2.1., the months in which elections take place ( $m_{-1}$ ) are associated with an improvement of consumers' expectations by a sharp 5.3 points.

However, in line with the results in Insee (2017), the effect turns out to be short-lived, with the second month following the elections

( $m_{+1}$ ) featuring losses (-4.6 points) which bring the expectations practically back to their pre-election level.

The remaining dummy variables ( $m_{-2}$ ,  $m_0$ ,  $m_{+2}$ ) are statistically insignificant and therefore excluded from the equation.

A visual inspection of the actual and fitted values (see Graph 2.1.) lends further support to the pertinence of an election effect in France.

The peaks/troughs indicated by the fitted values are not only always correct, i.e. matched by in-/de-creases in the target series<sup>12</sup>, but they coincide in a number of cases with particularly pronounced ones (e.g. the 2007-peak or the 1993-trough). As a corollary, the magnitude of the dips and surges in the fitted values clearly exceeds the average size of the ups and downs in the target series.

That observation is relevant because our empirical set-up combines a see-sawing target series with binary explanatory variables which take the value 1 only a few times and thus has the potential to deliver statistically significant results simply by chance. A symptom of such meaningless results would be if peaks and

[https://ec.europa.eu/info/sites/info/files/bcs\\_user\\_guide\\_en\\_0.pdf](https://ec.europa.eu/info/sites/info/files/bcs_user_guide_en_0.pdf)

<sup>12</sup> Exceptions are the troughs signalled in May 1986 and in July 1997.

troughs in the fitted values were not larger than average ones in the target series.

Turning away from the French results, our empirical method fails to distil any clear-cut election effects in the other countries analysed, either because the election dummies are not significant at all, or because a visual inspection of the results suggests that the results are, indeed, obtained by chance.<sup>13</sup>

As regards the **second** empirical strategy, which focusses on the hp-filtered level of consumers' expectations (equation (2)), the evidence of a strong reaction of French consumers to national elections can be further corroborated. As Table 2.2. (panel a)) shows, the month following elections is associated with consumers' expectations exceeding their trend-cycle by 5.9 points. In line with the previous results, the effect can be qualified as a veritable expectation *boost*, considering that the average size of the target variable's positive deviations from its trend-cycle is at a mere 2.7 points. The only aspects in which the results of the hp-filter approach differ from the previous ones is in respect of the timing (one month later) and duration (one month shorter) of the effect.

**Table 2.2. – Regression results for equation (2)**

a) France	coefficients	p-values*
$m_0$	5.9	0.00
$R^2$		0.07
<b>b) Austria</b>		
$m_{-1}$	4.3	0.00
$m_0$	2.7	0.00
$R^2$		0.05

\* p-values derived from heteroskedasticity- and autocorrelation-consistent standard errors (Newey-White)  
 Sample for France: 1985m1 to 2017m9  
 Sample for Austria: 1995m10 to 2017m9  
 Source: European Commission calculations

Graph 2.2. further substantiates the evidence of an election effect, showing all peaks in the fitted values to coincide with positive

deviations from the trend-cycle of consumers' expectations.<sup>14</sup>

Other than France, the second empirical strategy also produces strong indications of an election effect in Austria. Consumers' expectations seem to brighten up considerably in the election month ( $m_{-1}$ ), as evidenced by a statistically significant deviation from the trend-cycle by some four points (see Table 2.2. – panel b)), which is well in excess of the *average* magnitude of the target variable's (positive) deviations from its trend-cycle. In the month following the elections ( $m_0$ ) the effect gets weaker, before disappearing completely.

A look at Graph 2.3. shows that the positive deviations from the cycle, as flagged by the fitted values, always coincide with periods of increased optimism in the actual target series. What is more, a number of the peaks in the fitted values are actually matched by particularly pronounced surges in the target variable (see, for instance, the 1995- and 2008-elections), which lends further support to the relevance of the observed election effect.

The **third** empirical strategy, again, illustrates the strong reaction of French consumers to elections, while failing to produce compelling

**Table 2.3. – Regression results for equation (3) - France**

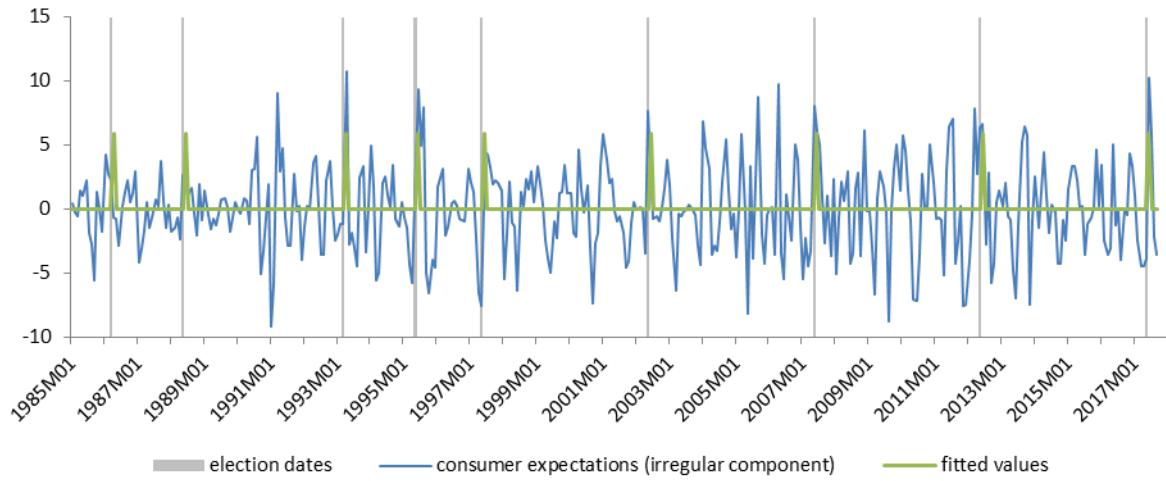
	coefficients	p-values*
<i>assessment of economic situation over past 12 months</i>	0.6	0.00
<i><math>\Delta_{12}</math> perceived inflation over past 12 months</i>	-0.1	0.00
<i>growth (y-o-y) purchasing power</i>	1.4	0.00
<i>growth (y-o-y) housing rents</i>	1.7	0.00
$m_{-1}$	6.2	0.02
$m_0$	6.7	0.00
$R^2$		0.86

\*p-values derived from heteroskedasticity- and autocorrelation-consistent standard errors (Newey-White)  
 Sample: 1997m1 to 2017m5  
 Source: European Commission calculations

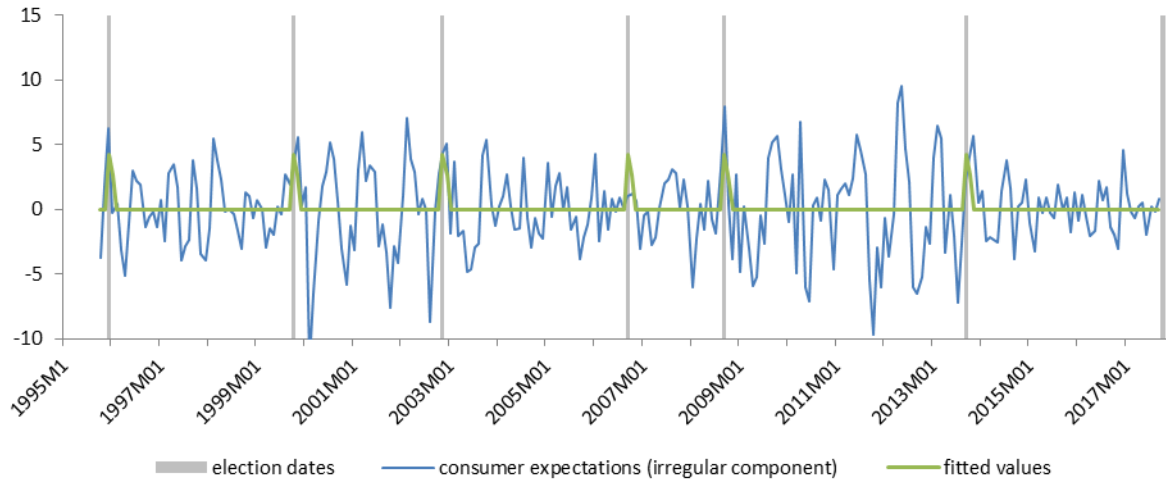
<sup>13</sup> The results for those countries can be shared upon request.

<sup>14</sup> As exception is the peak signalled in April 1986.

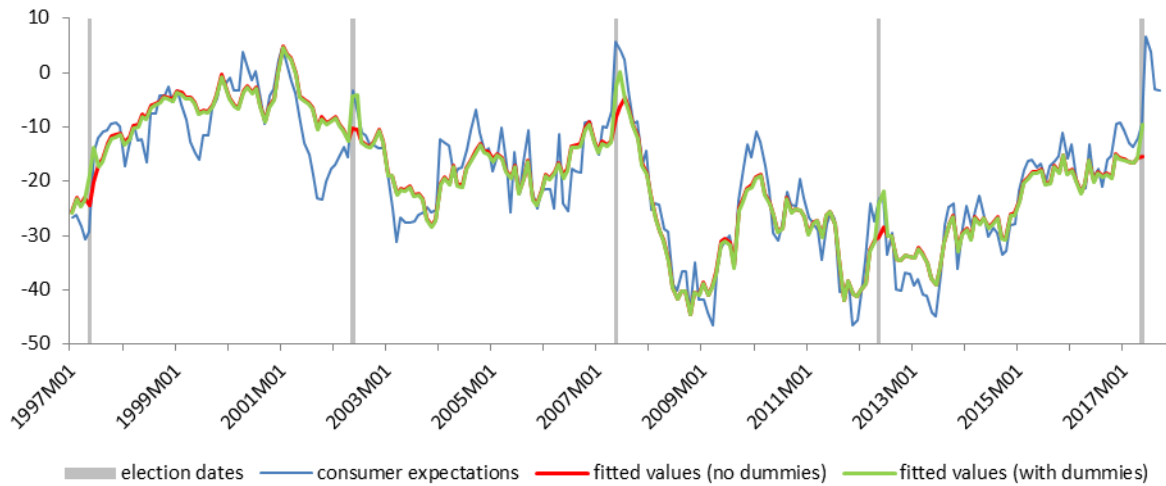
**Graph 2.2. – Actual and fitted values for regression equation (2) - France**



**Graph 2.3. – Actual and fitted values for regression equation (2) – Austria**



**Graph 2.4. – Actual and fitted values for regression equation (3) - France**



evidence of an election effect in any of the other countries analysed. Table 2.3. summarises the French regression results.

Based on a top-down testing approach applied to a wide array of potentially relevant hard, financial and survey data, four variables seem to be highly relevant in explaining consumers' expectations regarding the future economic situation:

The first is consumers' perception of the economic situation over the past 12 months, whereby positive readings are associated with optimistic views on the future. Similarly, consumers' perception of inflation over the past year seems to have a decisive bearing on their economic expectations, with perceptions of an accelerated inflation boding badly for the future. In line with the results of the first empirical approach, also growing purchasing power fuels optimism. Finally, brighter expectations are associated with rising housing rents, which can be argued to serve as a proxy of general economic prosperity, considering that the inclusion of purchasing power among the explanatory variables means that the negative effect of increasing rents is already controlled for.

After controlling for all those relevant factors, there is still a statistically significant election effect, which can be located in the election month ( $m_1$ ) and the following one ( $m_0$ ). Its timing is thus consistent with the findings of the first empirical approach. Also the magnitude of the effect (6.2-6.7 points, depending on the month) is broadly in line with the 5.3-5.9 points resulting from the first two regressions and, considering a graphical representation of the results in Graph 2.4., again seems to be meaningful in the context of the target variable's characteristic profile.

### Rationalising the results

The findings presented in this article provoke two important questions. Why do French people react so strongly to national elections? Can we be sure that an election effect in other European countries (except for Austria) does not exist?

A potential answer to the first question lies in the peculiarity of France having a presidential

system, which grants its first citizen more executive/legislative powers than in countries headed by a prime minister/chancellor. With national elections traditionally delivering one-party majorities which exempt the president from the need to form coalitions, the likelihood that elections trigger drastic policy changes is arguably higher than in other European countries, thus justifying the more widespread belief among French voters that elections can really change things for better.

Another consequence of the presidential system is that elections are highly focussed on the candidates, rather than their parties and thus arguably deliver a better surface for voters to project their hopes upon.

As regards the second question, while the analysis presented in this article fails to identify an election effect in the majority of investigated countries, this should not be considered as a proof that there is no such effect. In fact, a graphical inspection of consumers' expectations does hint at some election effect in a number of EU countries. However, in those cases, the potentially election-induced spikes in consumers' expectations are less regular in terms of their length, as well as the point in time (relative to the election date) where they occur. Graph 2.5., displaying German consumers' economic expectations alongside the national election dates, illustrates the point. For every election there is a potential election spike in the immediate vicinity of the election date. However, while expectations often peak in the election month, there are also examples where consumers show the strongest reaction prior to the elections (e.g. in 1987) or thereafter (e.g. in 1998 and 2005). The chosen empirical set-up, more specifically the way the election dummies are constructed, assumes that the election effect in a given month before, at or after an election is the same across all elections observed. If that assumption was relaxed, e.g. by defining dummies flagging an entire five- or even seven-months period centred around each election, one might be able to capture less regular election effects like those in Germany.

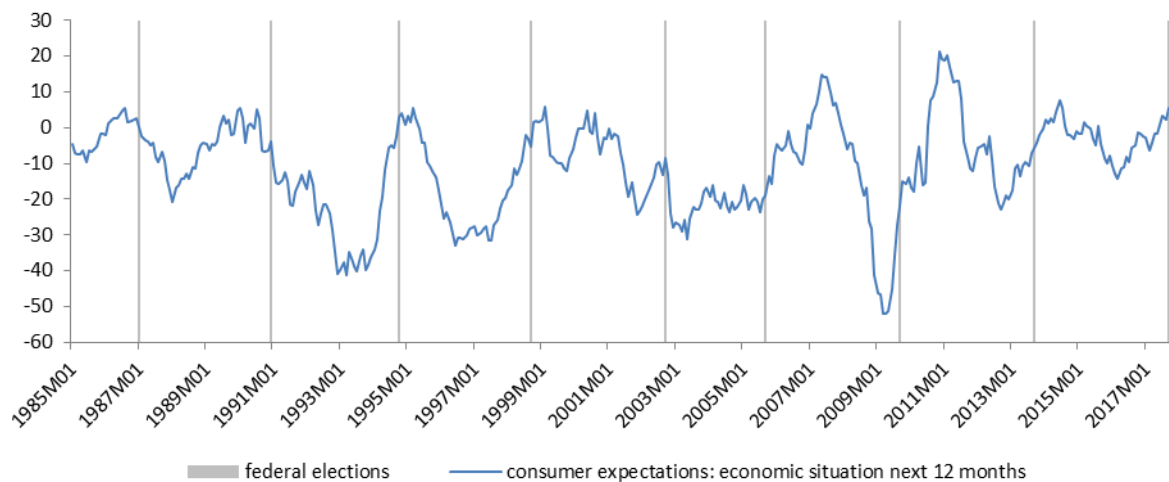
However, such an analysis would inevitably be less rigorous and convincing, since the less regular the (alleged) election effect observed in



the data, the more likely it is to reflect other phenomena than regular elections.

Finally, while our empirical strategy fails to identify election effects in all other analysed countries, this is no proof that an election

**Graph 2.5. – Consumers' economic expectations and election dates – Germany**



## Conclusions

This quarter's special topic seizes the occasion of the 'super election year 2017' to take a closer look at the effect of national elections on consumer sentiment. Departing from some geographically patchy evidence suggesting that elections fuel consumer optimism, the special topic applies three alternative empirical strategies to a representative sample of European countries so as to shed light on the prevalence of such a phenomenon in Europe.

The results suggest that elections cause a surge in optimism among French consumers, which, however, is short-lived. Depending on the empirical set-up, the effect kicks in when elections take place or in the following month and vanishes in the second month after the elections. Other than France, there is also evidence of a positive, temporary election effect in Austria, where one of the three empirical approaches indicates elevated levels of optimism in the election month and the following month.

We argue that the remarkable reaction of French voters to elections may be due to the presidential system giving the head of state comparatively far-reaching competencies and thus potentially promoting the perception that elections can really make for a change.

effect does not exist. Discussing the example of Germany in some detail, we point out that in several Member States the impact of elections on consumers might be less regular in terms of timing and length and therefore be hard to capture statistically.

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## 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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