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European Business Cycle Indicators

3rd Quarter 2021

Special topic

- New survey-based measures of economic uncertainty.

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 (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

- After reaching an all-time high in July, the Economic Sentiment Indicators (ESI) for the EU and the euro area (EA) slipped in August and then stabilised in September, ending the third quarter of 2021 broadly unchanged from the end of the second quarter, at a still very high level.
- Conversely, the Employment Expectations Indicator (EEI) expanded further in both areas. Compared to June, the EEI in September was 2.0 (EU) / 1.9 (EA) points up, at its highest level since summer/autumn 2018.
- From a sectoral perspective, confidence improved significantly only in the construction sector in the third quarter of 2021, while it decreased markedly in the retail trade sector and, to a lesser extent, in services. Confidence was broadly stable in industry and among consumers. In terms of levels, confidence indicators remain well above their respective long-term averages and score above their respective pre-pandemic readings of February 2020.
- The ESI deteriorated markedly in the Netherlands (-2.7) and, to a lesser extent, also in Italy (-1.1), France (-1.6) and Poland (-1.8), while it increased in Spain (+2.2) and, more marginally so, in Germany (+0.8). In September, the ESI remained well above its long-term average of 100 and its pre-pandemic level in all six countries.
- In July, capacity utilisation in manufacturing increased only modestly by around ½ percentage points in both the EU and the EA compared to the last survey of April. At just below 83% in July, both indicators are at their highest level since January 2019, and well above their long-term averages of around 80½%. Capacity utilisation in services increased by around 1¾ percentage points to 88.2% in the EU and 88.0% in the EA compared to April. In both regions, however, utilisation rates in services remained below their long-term average and pre-pandemic level.
- The share of industry and construction managers pointing to shortage of labour force and material and/or equipment as factors limiting their production activity reached the highest values on record during the third quarter of 2021.

Special topic: New survey-based measures of economic uncertainty

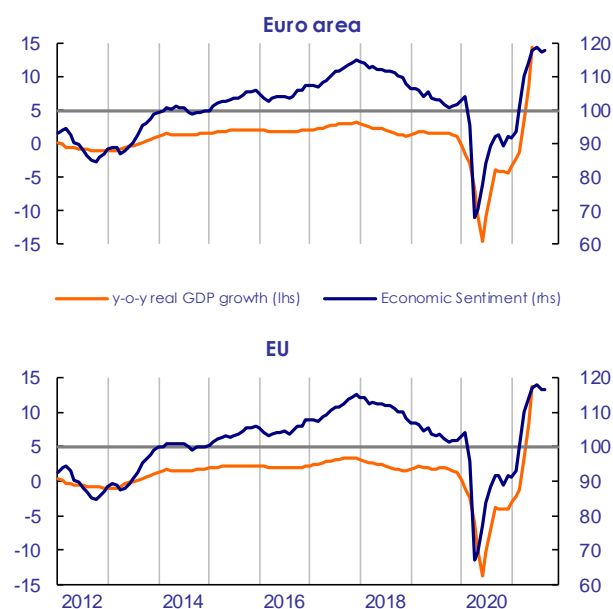
In May 2021, new uncertainty questions have been introduced in the Joint Harmonised EU Programme of Business and Consumer Surveys. The questions enquire the deviation of possible economic outcomes around a central expectation, and are thus conceptually different from existing indicators of ‘confidence’, which capture the central expectation itself. The empirical analysis shows the new uncertainty indicators to well reflect the COVID-19 pandemic shock in spring 2020. Comparison with a selection of existing measures of uncertainty suggests that the new indicator follows broadly the same trend as previous uncertainty measures but is less volatile and provides reliable informational content at an early stage. Finally, the sectoral breakdown of the new indicator delivers intuitive cross-sector and cross-branch differences. From a conceptual point of view, the new survey-based indicator has the advantage that it is directly based on answers of firms and consumers about the foreseeability of future economic developments, and is thus a genuine and direct measure of perceived uncertainty. The Commission will start to publish the new uncertainty indicators in October 2021, in its regular press release on latest survey results.

1. RECENT DEVELOPMENTS IN SURVEY INDICATORS

1.1. EU and euro area

After reaching an all-time high in July, the economic sentiment indicators (ESI) for the EU and the euro area (EA) eased in August and then stabilised in September, ending the third quarter of 2021 broadly unchanged from the end of the second quarter (see Graph 1.1.1), at an outstandingly high level.

Graph 1.1.1: Economic Sentiment Indicator



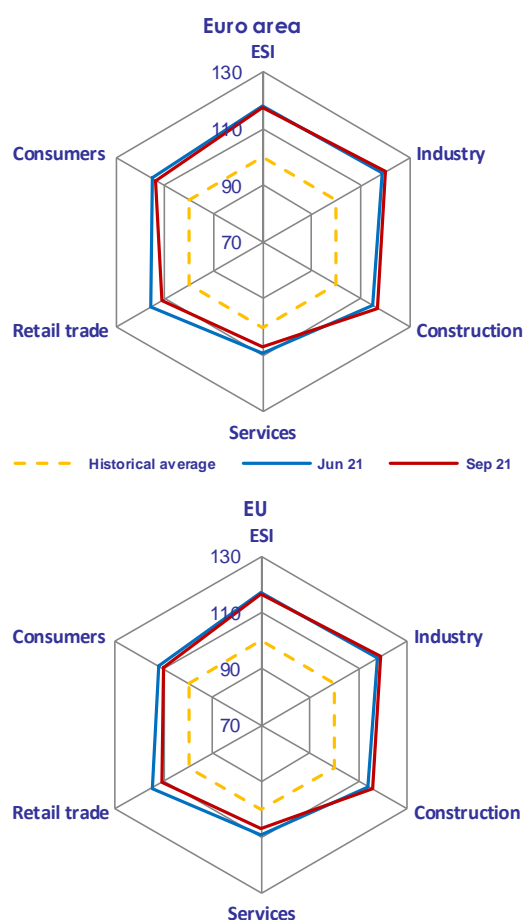
Note: The horizontal line (rhs) marks the long-term average of the survey indicators. Confidence indicators are expressed in balances of opinion and hard data in y-o-y changes. If necessary, monthly frequency is obtained by linear interpolation of quarterly data.

The ESI finished the third quarter -0.5 (EU) / -0.1 (EA) points below its level of June 2021. At 116.6 (EU) and 117.8 (EA) points, the ESI is still at a very high level in both regions.

From a sectoral perspective, confidence improved noticeably only in the construction sector in 2021Q3, while it decreased markedly in the retail trade sector and, to a lesser extent, in services. Confidence was broadly stable in industry (marginally up) and among consumers (marginally down) (see Graph 1.1.2). In terms

of levels, confidence indicators remain well above their respective long-term averages.

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 2000q1. For more information on the radar charts see the Special Topic in the 2016q1 EBCI.

All confidence indicators finished the third quarter well above their respective pre-pandemic reading of February 2020. Also the confidence indicator for construction climbed to its highest level since June 2019, finally fully recovering from the COVID19-induced slump.

Among the six largest EU economies, economic sentiment deteriorated most notably in the Netherlands (-2.7) over the quarter, mainly

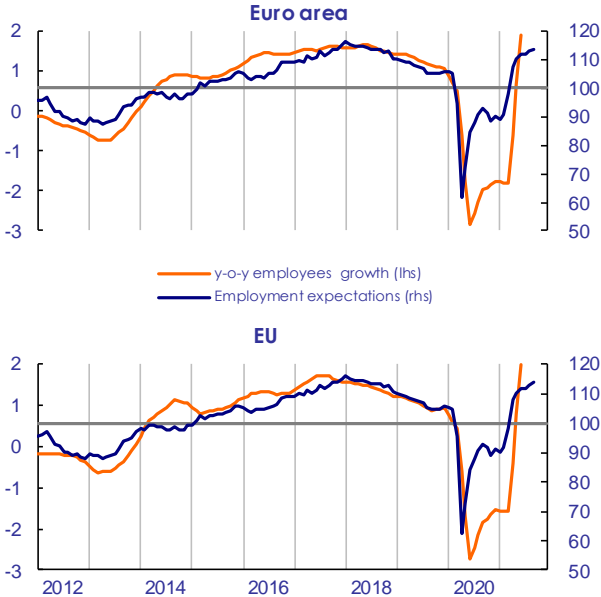
driven by a drastic fall in sentiment in retail trade. The indicator decreased also in Italy (-1.1), France (-1.6) and Poland (-1.8), while it increased in Spain (+2.2) and – more marginally so – in Germany (+0.8). In September, the ESI remained well above its long-term average of 100 and its pre-pandemic level in all six countries.

In line with the ESI results, Markit Economics' PMI Composite Output Index for the Eurozone lost momentum during 2021Q3 (going from 59.5 to 56.2), after hitting an all-time high in July at 60.2. Similarly, after reaching a very high level in 2021Q2, the Ifo Business Climate Index (for Germany) declined in 2021Q3.

Conversely, the Employment Expectations Indicator (EEI)¹ expanded further in both the EU and the EA. Compared to June, the EEI in September was 2.0 (EU) / 1.9 (EA) points up and at its highest level since summer/autumn 2018 (see Graph 1.1.3).

Zooming into the EEI's sectoral components, employment plans in September were more optimistic than in June in all business sectors.

Graph 1.1.3: Employment expectations indicator

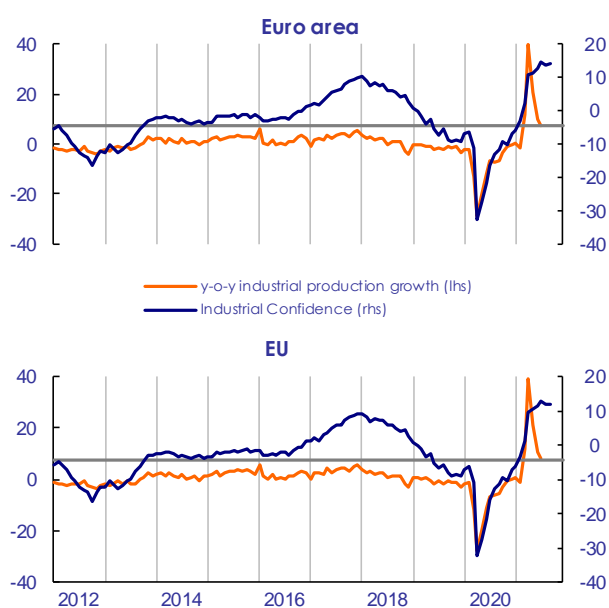


¹ The new indicator was presented in the 2019-Q4 special topic of the [European Business Cycle Indicators](#) publication (see also the [Methodological User Guide](#) to the Joint Harmonised EU Programme of Business and Consumer Surveys for a description of the EEI).

Sector developments

After four quarters of expansion in a row, **industry confidence** increased only marginally over the third quarter. After reaching its record high level in July, the indicator eased slightly in August and remained stable in September, gaining 0.7 (EU) / 1.3 (EA) points compared to June. As illustrated in Graph 1.1.4, industry confidence remains strong by historical standards in both the EU (at 12.1 points) and in the euro area (14.1).

Graph 1.1.4: Industry Confidence indicator



Zooming into individual components of industrial confidence, managers' assessment of **order books** reached an all-time high in July and remained at very high levels throughout the quarter. Inversely, managers' appraisals of **stocks** descended to historically scarce levels, reaching their lowest level ever in July. Managers' **production expectations** that had reached their peak already in April 2021 remained broadly stable throughout the third quarter, at historically high levels.

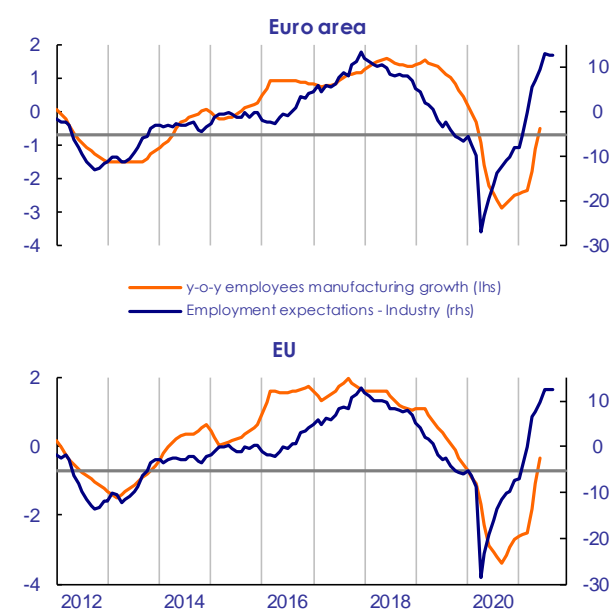
Of the components not included in the confidence indicator, managers' appraisals of **past production** saw a significant drop over the quarter, while those of **export order books** improved further, reaching in July a level unseen since May 2007.

Managers' **employment expectations** (see Graph 1.1.5) improved for the fifth quarter in a

row and reached in September for the EU (and in July for the euro area) a level unseen since December 2007. The same observations hold true for **selling price expectations** in industry, which have continued to increase throughout the third quarter, reaching a new all-time high in September.

A substantial increase in industry confidence was registered in Germany (+4.2), where the indicator reached an all-time high in September. Also Spain (+2.5) and France (+1.0) reported slight improvements, while Poland recorded a slight decline (-1.8). Industry confidence remained virtually stable in Italy (-0.6) and the Netherlands (-0.7).

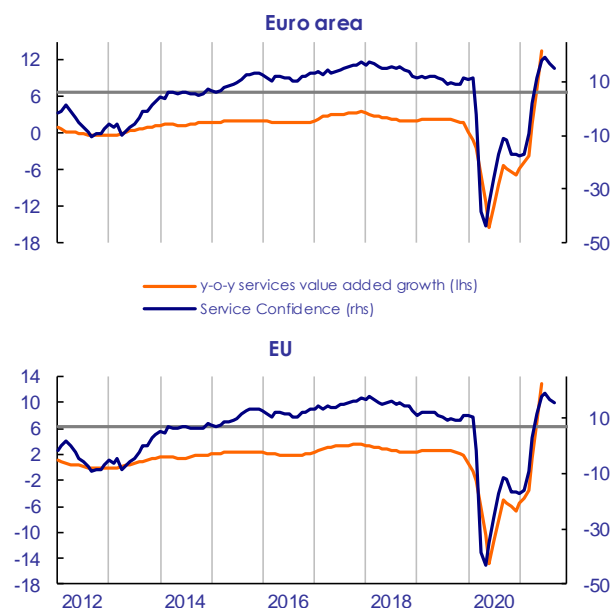
Graph 1.1.5: Employment expectations in Industry



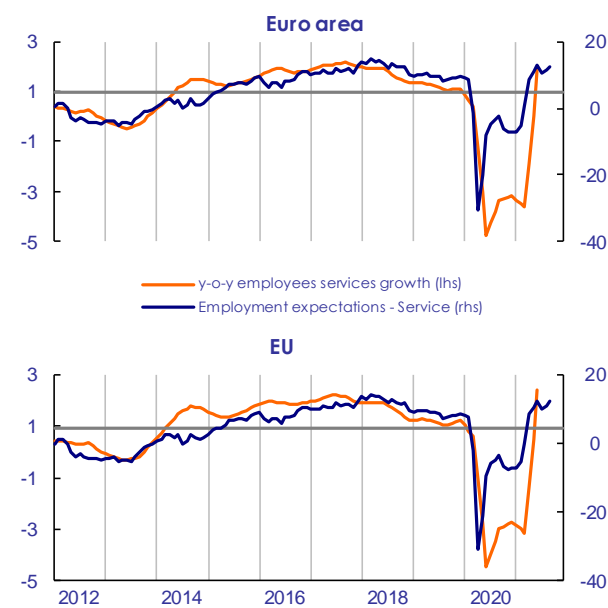
According to the quarterly manufacturing survey (carried out in July), **capacity utilisation in manufacturing** increased only modestly in both the EU (+0.6 percentage points) and the EA (+0.4 percentage points) compared to the last survey in April. At close to 83% in July, both indicators are at their highest level since January 2019, well above their long-term average of around 80½%.

The share of industry managers pointing to the shortage of labour force (20.6% in the EU) and material and/or equipment (39.3%) as **factors limiting production** reached the highest values on record in the July survey.

Graph 1.1.6: Services Confidence indicator



Graph 1.1.7: Employment expectations in services



Following the sharp increase in the second quarter, confidence in the **services sector** deteriorated somewhat during the third quarter. The indicator slumped by 2.3 (EU) / 2.8 (EA) points compared to June. Scoring at 15.4 (EU) / 15.1 (EA), services confidence in September remained comfortably above its long-term average and pre-pandemic level in both regions (see Graph 1.1.6).

Looking into the components of services confidence, the decline resulted from deteriorating views on **expected demand**, while managers' assessment on **past demand** was basically unchanged. Managers' appraisals of the **past business situation** also weakened.

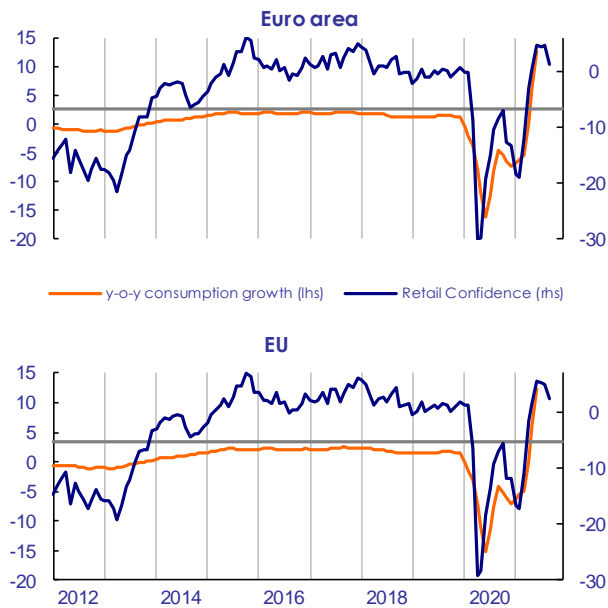
In both the EA and the EU, **employment expectations in services** remained virtually stable over the third quarter (see Graph 1.1.7), still at their highest level since August 2018. Managers' **selling price expectations** continued to increase over the quarter, due to further spikes in July and September.

Among the six largest EU Member States, confidence in the services sector cooled in Germany (-4.5), France (-3.7), and to a lesser extent, Poland (-1.0). By contrast, the indicator improved in Spain (+2.4), and remained essentially unchanged in Italy (+0.3) and in the Netherlands (-0.5). Except for Poland, the indicator in these countries remained above its long-term average.

Capacity utilisation in services, as measured by the quarterly survey conducted in July, increased by 1.7 percentage points in the EU (to 88.2%) and by 1.8 percentage points in the EA (to 88.0%) compared to April. In both regions, however, the indicator remains below both its long-term average (88.9% in the EU, 88.6% in the EA) and its pre-pandemic level of around 90½% in both regions.

In the third quarter 2021, **retail trade confidence** fell back in both the EU (-3.2) and the euro area (-3.4), interrupting the upward trend that had started in March. In both regions, confidence indicators remained well above the long-term average and pre-pandemic levels (see Graph 1.1.8).

Graph 1.1.8: Retail Trade Confidence indicator



The decrease resulted from a strong deterioration of managers' appraisal of the **past business situation** at the end of the quarter, and their expectations regarding the **future business situation** eased throughout the quarter. The assessment of the **volume of stocks** currently held by retailers, which enters with an inverted sign in the confidence indicator, decreased continuously throughout the quarter, and reached a new record low in September.

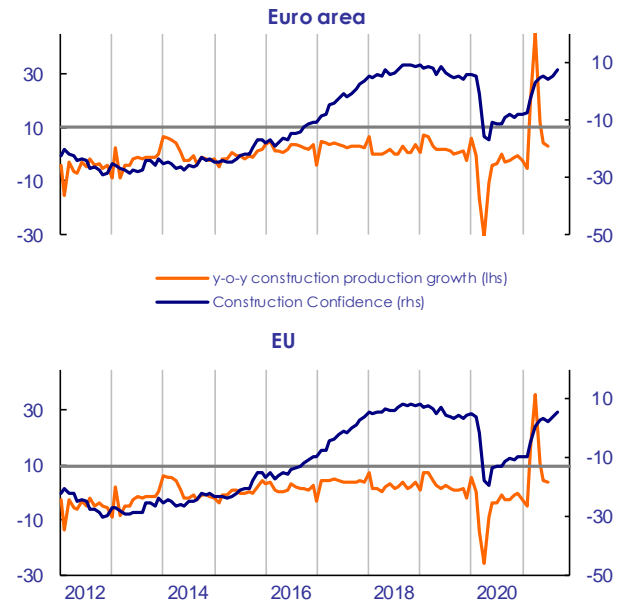
At the level of the six largest EU economies, confidence plummeted in France (-11.3), offsetting last quarter's substantial gains, and booked marked decreases also in the Netherlands (-7.0) and Poland (-4.8). Albeit to a lesser extent, the indicator decreased also in Italy (-1.8), while retail confidence in Germany (-0.3) and Spain (+0.0) remained flat.

Continuing the upward trend that started in June 2020, **construction confidence** ended the second quarter of the year 2.2 (EU) / 2.3 (EA) points above its level in June. In both regions, the indicator is now above its pre-pandemic level (see Graph 1.1.9).

In terms of components, EU/EA managers' appraisals of **order books** and their **employment expectations** brightened softly, the latter picking up again in August and September after a slight dip at the start of the quarter.

The share of construction managers pointing to the shortage of labour force and material and/or equipment as **factors limiting building activity** kept rising throughout the quarter, reaching the highest values on record in September (27.3% and 19.7% in the EU, respectively).

Graph 1.1.9: Construction Confidence indicator

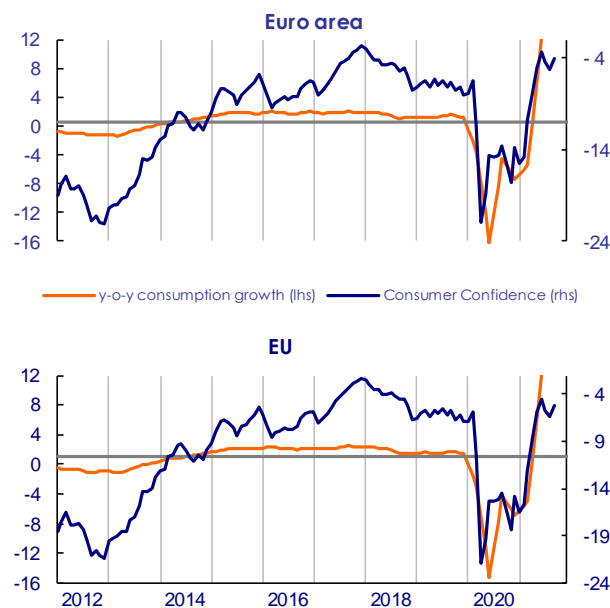


Construction confidence firmed in Germany (+4.3), the Netherlands (+3.6) and France (+2.1), while it remained broadly unchanged in Poland (+0.7), Spain (-0.3) and Italy (-0.7). The indicator is above its long-term average in all of the six largest Member States but it is still below its pre-pandemic level in Germany, France and Poland.

Consumer confidence remained broadly stable in 2021Q3, edging down by 0.7 points in both the EU and the euro area. Both indicators remained at historically high levels, above their pre-pandemic level (see Graph 1.1.10).

Consumers were more pessimistic in respect of the **the general economic situation of their country** and, though to a lesser extent, their intentions **to make major purchases**. Consumers' expectations about their **personal financial situation** were virtually unchanged in both areas, while their **past personal financial situation** brightened slightly over the quarter.

Graph 1.1.10: Consumer Confidence indicator



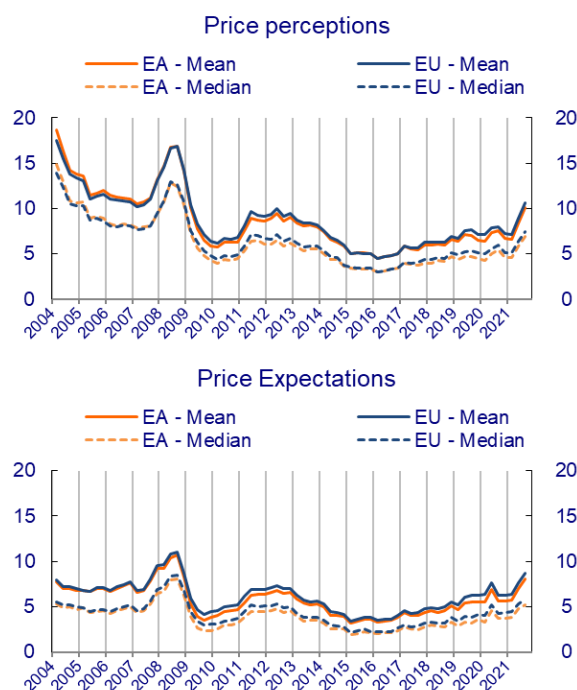
While not included in the consumer confidence indicator, **consumers' savings expectations** marginally edged down compared to June, after reaching an all-time high in May.

In the six largest EU economies, consumer confidence improved in Spain (+3.1), while it deteriorated in the Netherlands (-5.0), and to a lesser extent in Italy (-1.5) and France (-0.9). It remained broadly unchanged in Germany (+0.1) and Poland (+0.4). In September, consumer confidence was well above its long-term average in all six Member States and has, except for Spain and Poland, exceeded its pre-pandemic level.

In the EU and the EA, both the mean and the median of **consumers' price perceptions** and **expectations** continued to increase in 2021-Q3 (see Graph 1.1.11).²

More detailed results, broken down by different socio-economic groups, can be downloaded on the [European Commission's website](#).

Graph 1.1.11: Euro area and EU quantitative consumer price perceptions and expectations

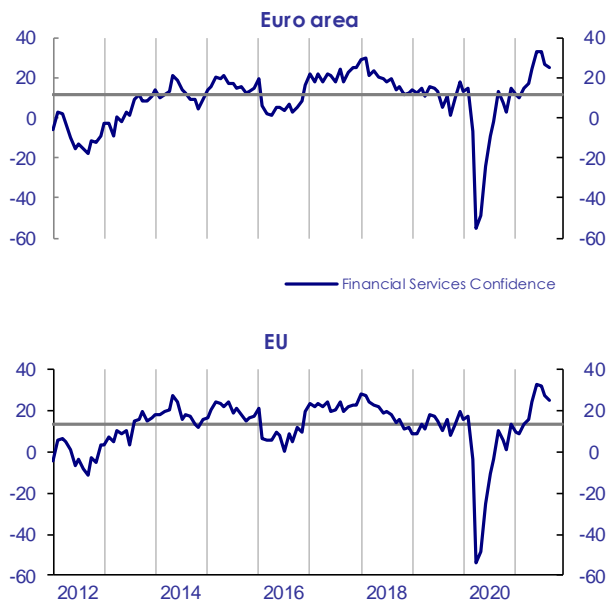


The **financial services confidence** indicator (not included in the ESI) fell significantly by more than 7 points from June to September, resulting mainly from a fall in August. Nonetheless, in September, the indicator remained well above its long-term average and its pre-pandemic level in both areas (see Graph 1.1.12).

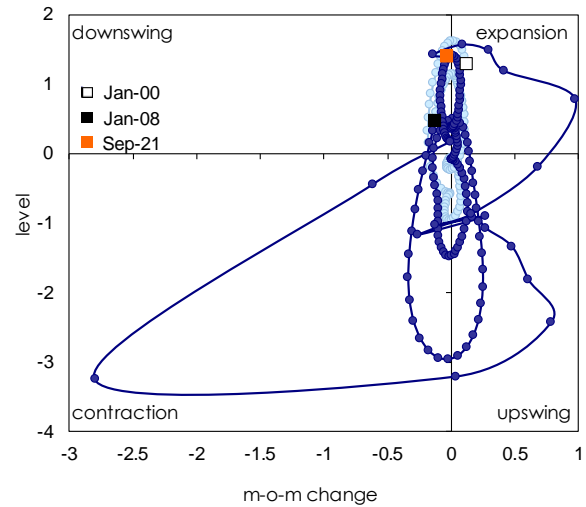
The decrease in confidence resulted from a slump in all three components (i.e., managers' assessments of the **past demand** and **business situation** and their **demand expectations**).

² For more information on the quantitative inflation perceptions and expectations, see the special topic in the previous [EBCI 2019Q1](#).

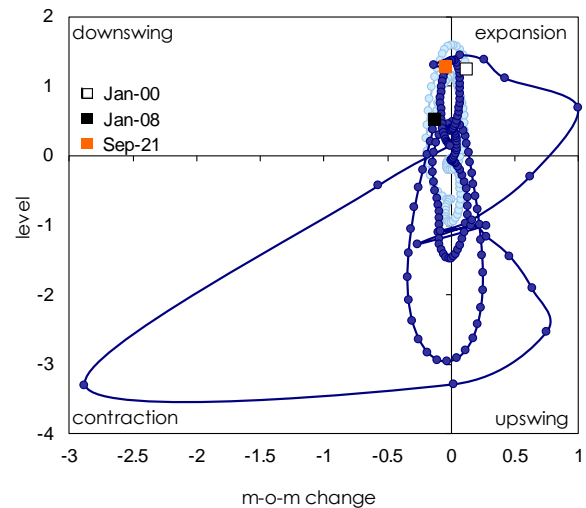
Graph 1.1.12: Financial Services Confidence indicator



Graph 1.1.13: Euro area Climate Tracer



Graph 1.1.14: EU Climate Tracer

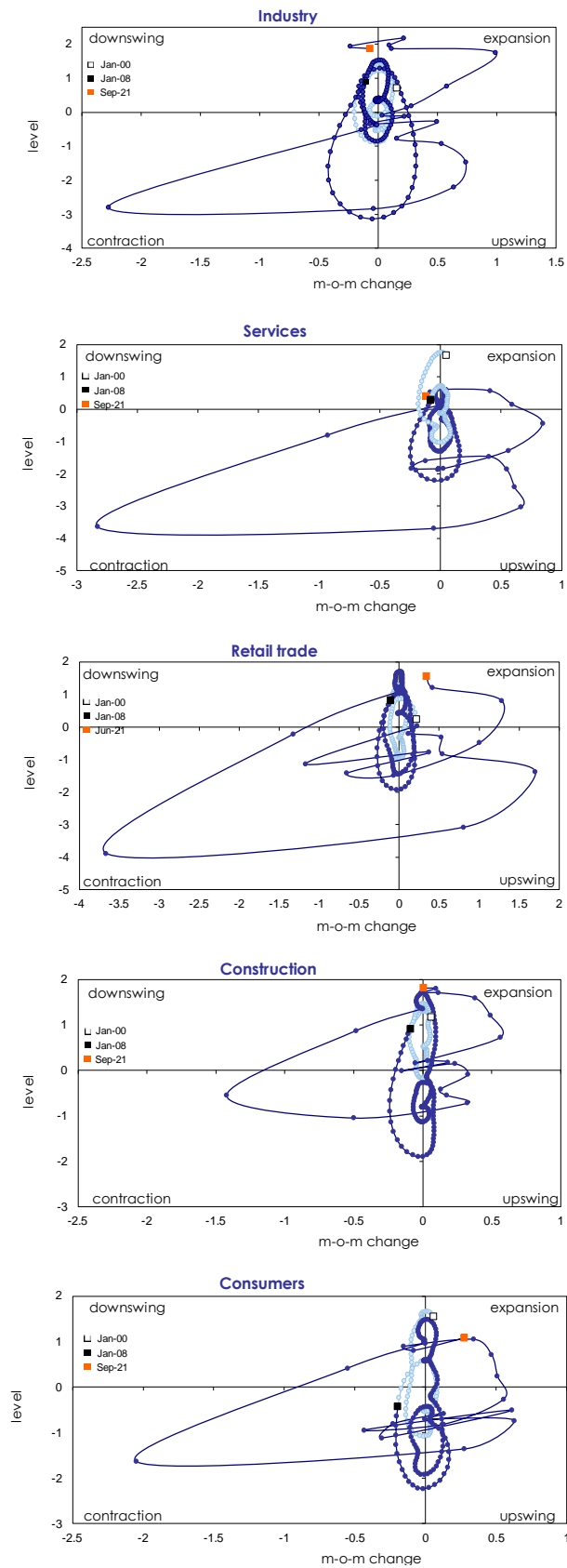


The dynamics of the ESI in the third quarter of the year, namely a slowdown in August after months of expansion, followed by stable sentiment in September, also showed in the EU/EA **climate tracers** (see Annex for details). At the end of 2021Q3, the climate tracer entered the downswing quadrant but remained close to the expansion area (see Graphs 1.1.13 and 1.1.14).

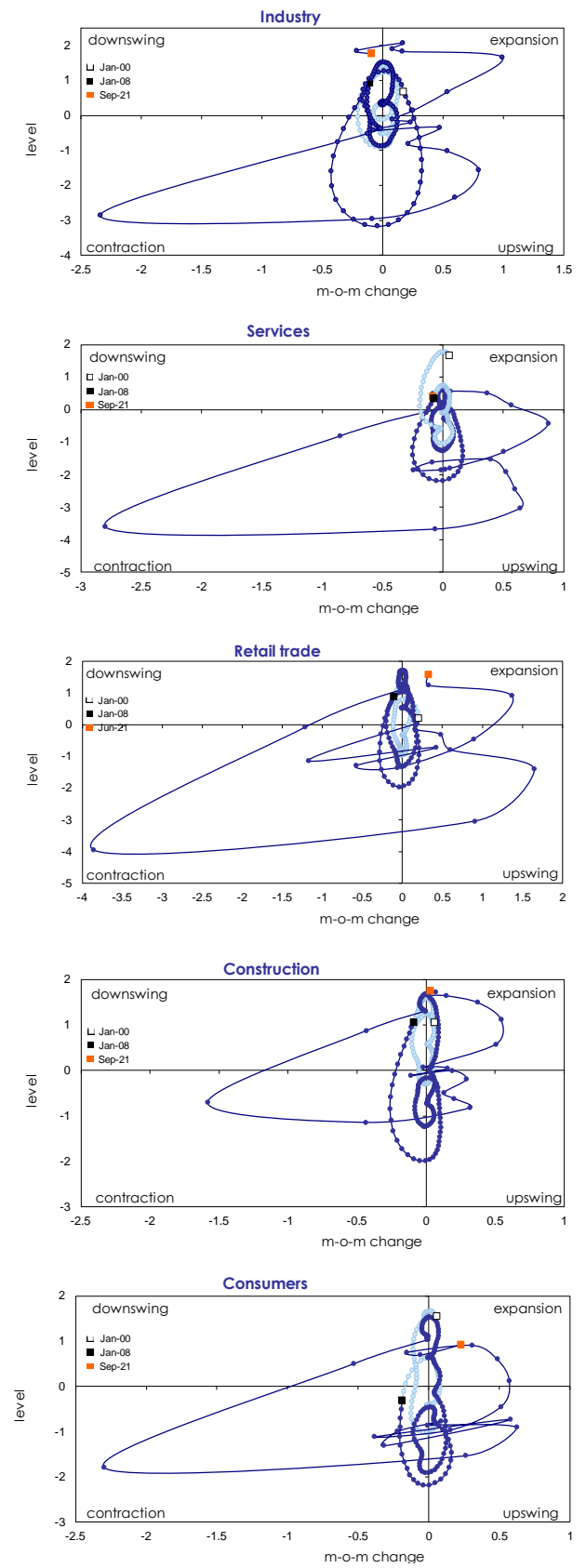
The EU/EA sectoral climate tracers (see Graph 1.1.15) show a similar trend to that of the climate tracer for the ESI. The tracers for industry and services shifted to the downswing area in August, while the tracer for retail trade moved well into the expansion area in July but started pointing towards the downswing border in August. The tracer for consumers moved well back into the expansion quadrant in September after being in the downswing area in July and August. Although the tracer for construction remains in the expansion quadrant, it is at the edge of the downswing area.

Graph 1.1.15: Economic climate tracers across sectors

Euro area



EU



1.2. Selected Member States

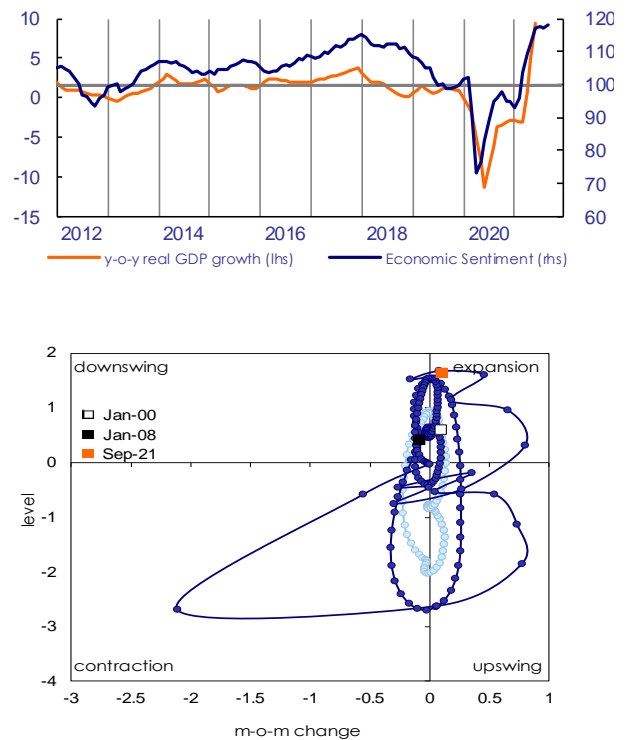
Over the third quarter of 2021, the ESI fell in the Netherlands (-2.7), Poland (-1.8), France (-1.6) and Italy (-1.1). Conversely, the indicator continued to rise in Spain (+2.2), and more marginally, in Germany (+0.8).

German sentiment hit a new all-time high at the end of the third quarter of 2021. The ESI for Germany gained 0.8 points on the quarter, reaching a level of 118.0 points. In line with the positive results, the German climate tracer (see Graph 1.2.1) moved back into the expansion area.

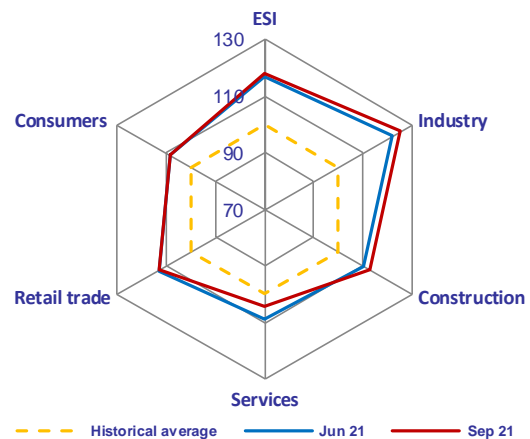
The Employment Expectations Indicator (EEI) followed the evolution of the ESI, gaining 1.9 points over the quarter, after a sharp rise in the second quarter. Employment expectations increased across industry, retail trade and construction, and worsened in services.

From a sectoral perspective, the German radar chart (see Graph 1.2.2) shows that confidence increased further in industry and construction, while it worsened in services, only partly offsetting the huge increase registered in the previous quarter. Confidence remained broadly stable in retail trade and among consumers. The level of confidence is above its long-term average in all sectors and among consumers.

Graph 1.2.1: Economic Sentiment Indicator and Climate Tracer for Germany



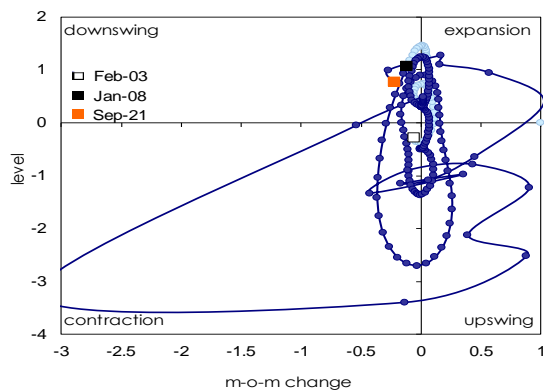
Graph 1.2.2: Radar Chart for Germany



After peaking in July at a level unseen since February 2001, sentiment in France interrupted the upward trend, losing 1.6 points compared to the second quarter 2021. At 111.1 points, the indicator remained nonetheless very comfortably above its long-term average and pre-pandemic level.

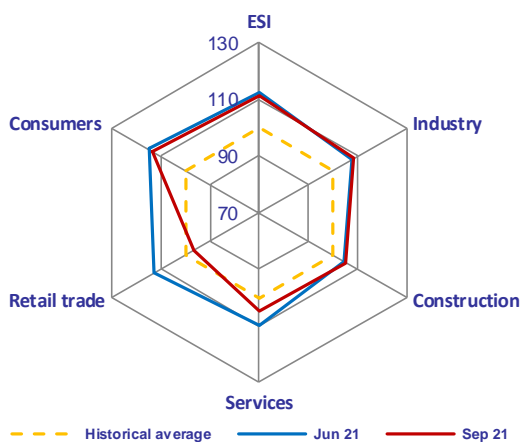
The drop in sentiment in August pushed the French climate tracer into the downswing quadrant (see Graph 1.2.3).

Graph 1.2.3: Economic Sentiment Indicator and Climate Tracer for France



Following two significant increases in Q1 and Q2, the French EEI remained broadly stable over the third quarter (+0.7 points compared to June). The result reflects sharp improvements in managers' employment expectations in industry, partially offset by a decline in services and retail trade. Employment expectations remained unchanged in construction.

Graph 1.2.4: Radar Chart for France



The French radar chart (see Graph 1.2.4) displays deteriorations in services and, in particular, retail trade confidence. Consumer

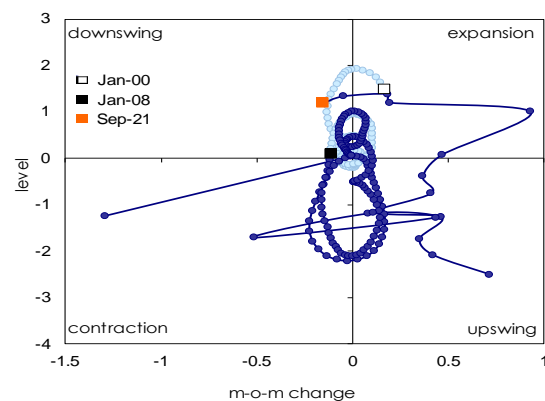
confidence also fell slightly. Slight rises were recorded in industry and construction. Except for retail trade, the current level of confidence is high in all sectors and among consumers.

After hitting a 20 year high in July, the **Italian ESI** declined in August and September, ending the third quarter at a slightly lower level than in June (-1.1 points). At 116.8, it remains, by historical standards, at a very high level.

The dip in confidence pushed the Italian climate tracer into the downswing quadrant since August (see Graph 1.2.5).

Over the third quarter, the Italian EEI edged down by 1.2 points compared to June, dampened by deteriorated employment expectations in services, retail trade and industry, partially offset by marginally better ones in construction.

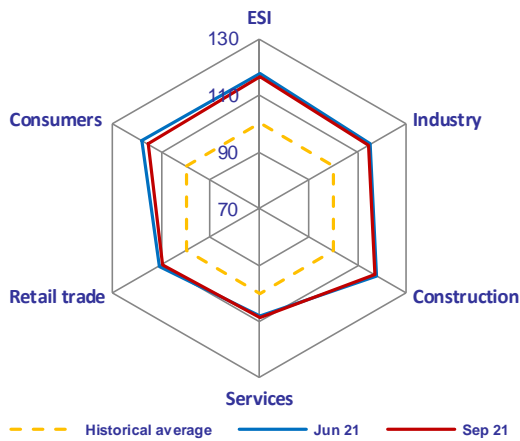
Graph 1.2.5: Economic Sentiment Indicator and Climate Tracer for Italy



From a sectoral perspective, confidence remained virtually unchanged in all business sectors and slightly declined among consumers (see Graph 1.2.6). After a striking increase in Q2, especially in services, the level of confidence remains strong, firmly above its

long-term average in all surveyed sectors and among consumers.

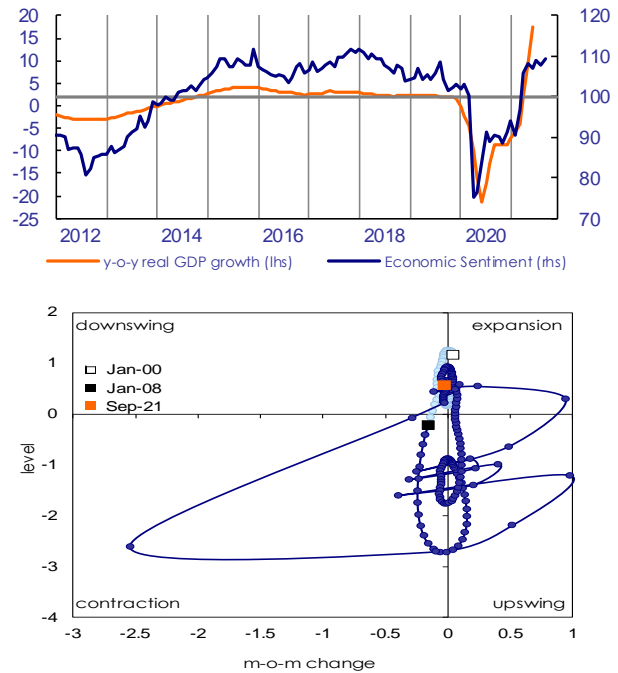
Graph 1.2.6: Radar Chart for Italy



Thanks to increases in July and September, the ESI for **Spain** ended the third quarter 2.2 points higher than in June, despite the slight dip in August. At 109.4 points, the ESI is at its highest level since June 2018.

However, the dip in August pushed the Spanish climate tracer out of the expansion quadrant, slightly into the area signalling a downswing (see Graph 1.2.7).

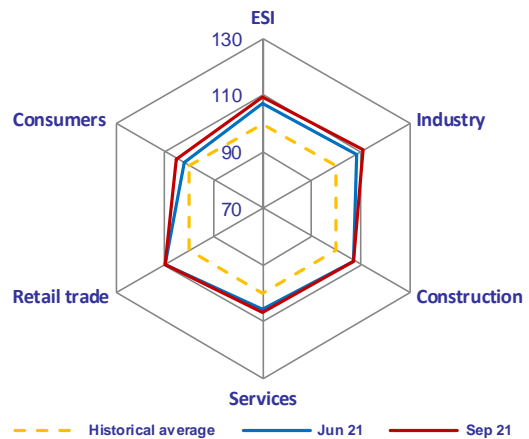
Graph 1.2.7: Economic Sentiment Indicator and Climate Tracer for Spain



Just like the ESI, the Spanish EEI strengthened further (+4.2 points in September compared to June). Managers' employment plans improved sharply in all surveyed sectors but most spectacularly in construction.

As shown in the radar chart (see Graph 1.2.8), confidence firmed among consumers, now clearly outstripping its long-term average. Already at a high level, confidence continued to brighten in industry and services, while it remained stable in retail trade and construction.

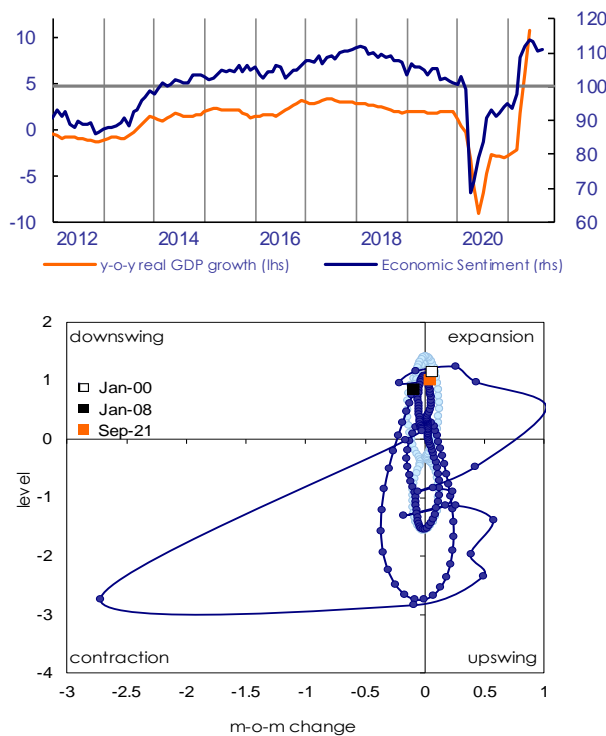
Graph 1.2.8: Radar Chart for Spain



Following exceptionally strong gains in the second quarter, the ESI for the **Netherlands** dived in August. Despite some rebound in September, the ESI lost 2.7 points compared to June. At 111.0 points, the indicator remains at a very high level.

The slowdown also showed in the Dutch climate tracer which moved into the downswing quadrant in July, before heading back to the expansion quadrant in September (see Graph 1.2.9).

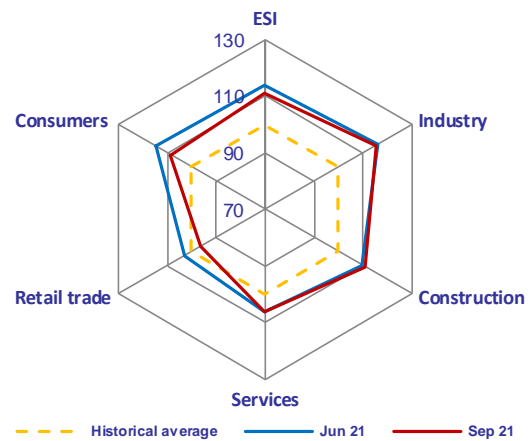
Graph 1.2.9: Economic Sentiment Indicator and Climate Tracer for the Netherlands



The Dutch EEI gained 2.6 points on the quarter, as managers' employment expectations improved markedly in retail trade and industry. Employment expectations remained stable in the construction sector, while they deteriorated in services.

As shown in the radar chart (see Graph 1.2.10), sentiment slumped in retail trade and among consumers, while remaining broadly stable in industry and services. Confidence improved slightly further in the construction sector. Except for retail trade, confidence is well above its long-term average across all surveyed sectors and among consumers.

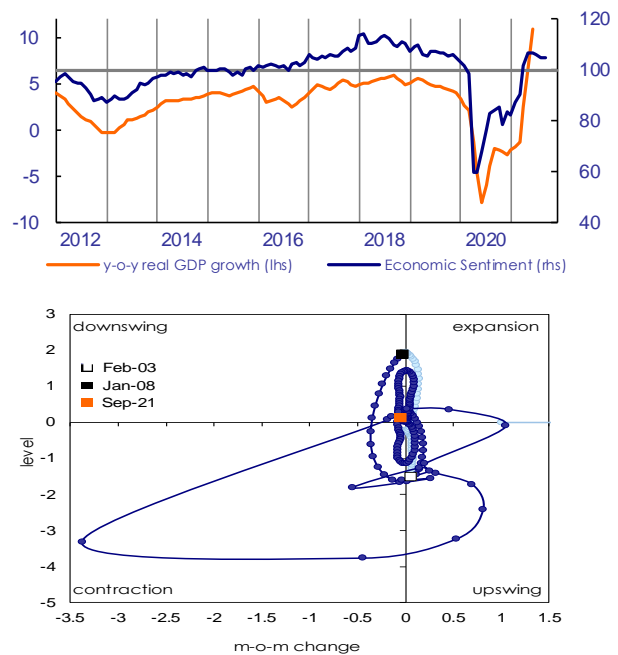
Graph 1.2.10: Radar Chart for the Netherlands



Despite a slight upturn registered in September, the ESI for **Poland** faltered in 2021Q3 and was 1.8 points lower than at the end of the third quarter. At 105.1, the indicator remains significantly above its long-term average.

The Polish climate tracer entered the downswing quadrant in July but has maintained a neutral position in the centre of the graph (see Graph 1.2.11).

Graph 1.2.11: Economic Sentiment Indicator and Climate Tracer for Poland

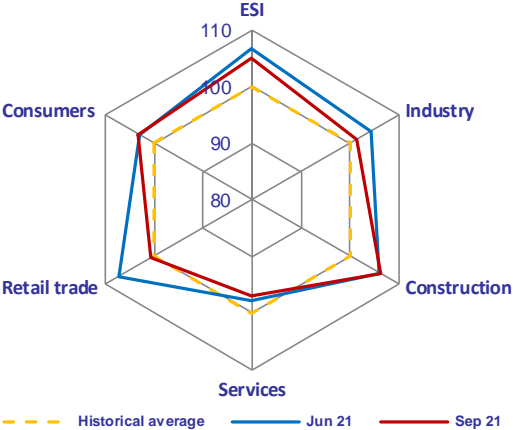


The Polish EEI was stable over the third quarter. Managers from the services sector revised their employment expectations upwards,

while industry managers revised their expectations downwards. In the construction and retail trade sectors, managers' views were broadly stable over the quarter.

As shown in the radar chart (see Graph 1.2.12), the slackening in the ESI was mainly driven by the retail trade sector. Sentiment also dampened in industry and services, while it was stable in the construction sector and among consumers. The level of confidence remains above its long-term average in industry, retail trade, construction and among consumers, but stays below in the services sector.

Graph 1.2.12: Radar Chart for Poland



2. SPECIAL TOPIC: NEW SURVEY-BASED MEASURES OF ECONOMIC UNCERTAINTY

Background

Starting with the Great Financial Crisis of 2007-2009 and reinforced by the ongoing COVID-19 crisis, the concept of economic ‘uncertainty’ has received increased attention from economic analysts and policy makers as a key variable for explaining and forecasting economic output levels. Keeping with [Nowzohour and Stracca, 2017](#)³, while economic “confidence can be thought of as a subjective feeling of certainty or strong belief in positive future economic developments...”, economic ‘uncertainty’ is understood here as “the range of possible outcomes of future economic developments..., and/or the lack of knowledge of the probability distribution from which future economic developments are drawn”.

Economic uncertainty can stem from different sources and affects the economy by making consumers and firms more cautious in their decisions regarding consumption (see, e.g., [Gieseck and Largent, 2016](#)⁴, [Ghirelli et al., 2021](#)⁵), business investment (see, e.g., [Bloom et al., 2007](#)⁶, [Meinen and Roehle, 2017](#)⁷) and

hiring (see, e.g., [Bloom, 2009](#)⁸, [Baker et al., 2016](#)⁹).

The high and growing interest in economic uncertainty and its impact on the economy has been accompanied by an academic debate on how best to measure it. As uncertainty is not directly observable, economists have used different proxies for this purpose. The most popular approaches advanced so far include

- measures of dispersion of economic actors’ views on the economic situation and outlook (marked dispersion highlights high uncertainty) as proposed by [Bachmann et al.](#)¹⁰;
- indicators based on forecast errors (the more flawed economic forecasts turn out to be, the more uncertainty there was about the outlook at the time of the forecast);
- indicators tracking uncertainty by text mining news articles in the press (e.g the Economic Policy Uncertainty Index of Baker *et al.*¹¹ or the World Uncertainty Index¹²).

Unfortunately, all of the proposed measures come with conceptual downsides. Dispersion-based gauges suffer from the fact that disparity of views about the future is not solely driven by uncertainty, but also by

3 Nowzohour, L., Stracca, L. (2017), "More Than A Feeling: Confidence, Uncertainty, And Macroeconomic Fluctuations", ECB Working Paper Series, No 2100, September.

4 Gieseck, A. and Largent, Y. (2016), "The Impact of Macroeconomic Uncertainty on Activity in the Euro Area", *Review of Economics*, vol. 67, no. 1, pp. 25-52.

5 Ghirelli, C., Gil, M., Pérez, J.J. et al. (2021), "Measuring economic and economic policy uncertainty and their macroeconomic effects: the case of Spain", *Empirical Economics* 60, pp. 869–892.

6 Bloom, N., Bond, S., and Van Reenen, J. (2007), "Uncertainty and investment dynamics", *Review of Economic Studies*, Vol. 74, No 2, pp. 391–415.

7 Meinen P., Roehle O. (2017): "On measuring uncertainty and its impact on investment: cross-country evidence from the Euro area", *Eur Econ Rev* 92, pp. 161–179.

8 Bloom, N. (2009), "The Impact of Uncertainty Shocks", *Econometrica*, 77(3), pp. 623–685.

9 Baker, S. R., Bloom, N., and Davis, S. J. (2016), "Measuring economic policy uncertainty. The Quarterly Journal of Economics", 131(4): pp. 1593–1636.

¹⁰ Bachmann, R., Elstner, S., and Sims, E. R. (2013) Uncertainty and economic activity: evidence from business survey data, *American Economic Journal: Macroeconomics*, 5, 217–49

¹¹ More information on the indicator can be found here: [Economic Policy Uncertainty Index](#)

¹² More information on the WUI can be found here: <https://worlduncertaintyindex.com/data/>

genuine difference of views and understanding of the same phenomena. The main downside of proxying uncertainty by the average size of forecasting errors is that they can only be calculated ex-post with a significant time-lag, i.e. the approach only allows monitoring *past* levels of uncertainty. Finally, the design of gauges like the Economic Policy Uncertainty Index by Baker *et al.* arguably involves a high degree of subjectivity (choice of newspapers, selection of search terms) and instability over time.

Faced with the imperfections of the available indicators, the European Commission (EC) chose to explore a new and, from a conceptual point of view, more direct uncertainty measure. The idea is simple: rather than *deriving* uncertainty levels from existing data, economic actors are directly asked about the perceived level of uncertainty in the economy¹³.

Following a successful testing phase in a number of EU member and candidate countries in 2019, the new uncertainty questions became a mandatory component of the Joint Harmonised EU Business and Consumer Survey (EU BCS) Programme in May 2021.

This special topic starts off with a description of the design of the new uncertainty indicator in terms of the formulations of the underlying survey questions and the aggregation method used. It then assesses the plausibility of its readings over time and across sectors and countries in light of the COVID-19 crisis. It also looks at the relationship between the new indicator and the traditional BCS ‘confidence’ indicators. In a subsequent step, the new uncertainty indicator is compared to a selection of the existing uncertainty gauges to assess its performance in terms of volatility and the degree to which results are intuitive. This special topic concludes with an analysis

of what the new indicators have to say at the current juncture about the prevailing level of uncertainty, in particular across different economic sectors.

The design of the new uncertainty indicators

The survey questions feeding into the new indicators do not inquire about the perceived level of uncertainty as such (e.g. “how uncertain are you about the future...?”), but instead ask respondents (consumers and managers) to indicate how difficult it is to make predictions about their future financial or business situation. The reason is that, in several European languages, the word “uncertain/ty” has a negative connotation¹⁴. While economic uncertainty tends to have a negative impact on the economy, the new question aims to identify uncertainty as the difficulty faced by economic agents to foresee the future with respect to both possible deteriorations and improvements of the economic situation.

The formulation of the uncertainty question in all business surveys covered by the EU BCS Programme (i.e. in the industry, services, retail trade and construction survey) reads as follows:

“The future development of your business situation is currently
++ *easy to predict*
+ *moderately easy to predict*
- *moderately difficult to predict*
-- *difficult to predict”*

To provide an adequate context for the question, it is introduced in the surveys right after the questions relating to the responding firm’s assessment of its business outlook¹⁵.

13 The approach was inspired by the Austrian Institute of Economic Research (WIFO), which conducts monthly business surveys in Austria co-financed by the European Commission’s EU-wide survey programme and has introduced a question on uncertainty in its survey in the 1980s.

14 This was a conclusion of the consultation the EC conducted among its survey partner institutes prior to the introduction of the new uncertainty question.

15 That “triggering” question relates to businesses’ expectations over the next 3 months in respect of production (industry survey), demand/turnover (services survey), business activity/sales (retail trade survey) and employment (construction survey).

The corresponding question for the consumer survey is as follows:

“The future financial position/situation of your household is currently

++ easy to predict

+ moderately easy to predict

- moderately difficult to predict

-- difficult to predict”

It directly follows a question inquiring about the respondent’s expectations about her/his household’s financial situation over the next 12 months.

The replies to the uncertainty questions by country and sector are summarised into so-called balance scores. The shares of positive answers are subtracted from the negative ones, rather than vice versa¹⁶ as is normally done for other EU BCS variables. This ensures that the resulting uncertainty indicators have an intuitive interpretation, with higher values signalling higher uncertainty.

Since the uncertainty question has only become a mandatory part of the BCS Programme in May 2021, the available time series for the uncertainty indicators are short. However, for a number of countries, data is also available for 2019, when the pilot was implemented. Finally, for a few country-sector combinations (see Table 2.1), the uncertainty question has been part of the survey without interruption since the beginning of the 2019 testing phase, yielding time series covering almost 2 ½ years. The subsequent analysis will rely heavily on those “long” time series, notably to illustrate the

evolution of the new uncertainty indicators¹⁷ over time.

Table 2.1: “long” uncertainty time-series

Surveyed sector	Country
Industry	Austria, Germany, Finland, Albania, EU*
Services	Austria, Germany, Finland, Albania, EU*
retail trade	Germany, Finland, Albania, EU*
Building	Austria, Germany, Albania, EU*
Consumers	Austria, Luxembourg, Poland, Finland, Albania, EU*
Aggregate of all sectors	EU*

**See footnote 25 for an explanation of how the sectoral and economy-wide EU uncertainty indices are constructed.*

How plausible are the results of the new uncertainty indicators?

The years 2020 and 2021 provide an excellent testing environment for the new uncertainty indicators, as they were dominated by the outbreak of the then unknown COVID-19 on the continent and the subsequent fight against it by means of restrictions to economic activity and social interactions. The latter caused considerable economic uncertainty as they created unprecedented disruptions to economic activity in several sectors and were put in place and withdrawn at short notice, depending on the inherently unpredictable evolution of the pandemic.

Graph 2.1 displays COVID-19 stringency indices for the countries for which “long” uncertainty time-series are available. The indices are compiled by the University of Oxford and record the strictness of policies

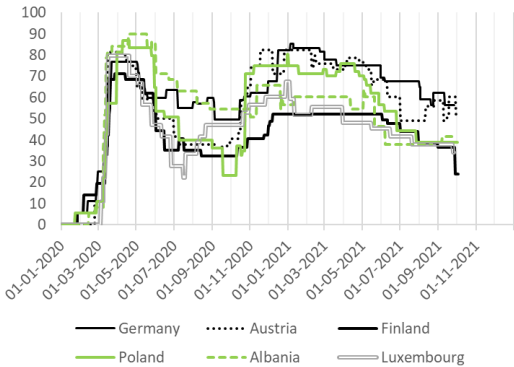
16 The exact formula is: [% of respondents answering “--“ + 0.5*% of respondents answering “-“] - [% of respondents answering “++“ + 0.5*% of respondents answering “+“].

The EC also tested an alternative aggregation formula which the Austrian Institute of Economic Research (WIFO) had deployed until April 2021 (0*% of respondents answering “++“ + 1/3*% of respondents answering “+“ + 2/3*% of respondents answering “-“ + 1*% of respondents answering “--“) and found the results to be almost identical.

17 Given their limited length, the time series discussed in this special topic can only be presented in non-seasonally adjusted form.

taken by governments to restrict people’s behaviour with a view to tackling COVID-19 (school closures, workplace closures, etc.)¹⁸.

Graph 2.1: COVID-19 stringency indices



Governments across the EU adopted a number of far-reaching and unprecedented containment measures in spring 2020, in response to the first wave of the pandemic. After some easing of the lockdown measures in summer 2020, the second wave of the pandemic prompted the re-introduction or tightening of the measures as of October/November 2020, though to varying degrees across countries. An improving health situation, largely thanks to the successful vaccination campaigns, allowed a gradual relaxation of the measures as of spring 2021.

Graphs 2.2-2.8 display the available uncertainty indicators for those countries/sectors with series going back to 2019. There are a number of common features across countries and sectors, which appear plausible in light of the evolution of the pandemic and related containment strategy recalled above.

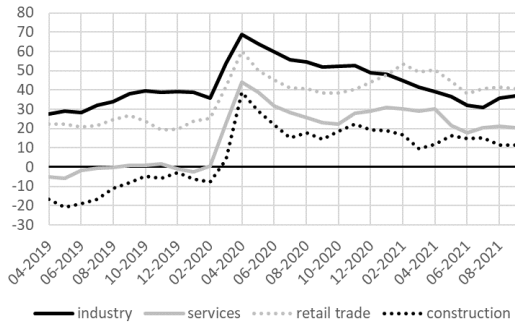
First, the uncertainty indicators for each portrayed country show a dramatic increase in spring 2020, when the virus hit the continent and tight restrictions were enacted. The spring peak marks the highest uncertainty level

registered throughout the observation period¹⁹.

Second, a number of series show another increase in autumn/winter 2020, reflecting the second wave of the pandemic. As the containment measures enacted during the second wave were, contrary to those in spring, not unprecedented (i.e. there was some “experience” about their likely impact), it makes sense that uncertainty levels in the second wave stayed well below those registered in the first one. Furthermore, across all portrayed countries, uncertainty in the industrial sector seems largely unaffected by the second wave of the pandemic, as the virus containment measures taken during the second wave focussed on contact-intensive activities in the services and retail sectors.

A final observation relates to the evolution of uncertainty over time. All indicators show a gradual (rather than abrupt) recovery from the peak in spring 2020. A majority of countries/sectors still record uncertainty above pre-pandemic levels, with only a few having reached those levels in recent months. This seems plausible, taking into account that the pandemic health threat is still lingering, on the continent but also beyond. Moreover, the long term impact of the pandemic crisis on the economy is still difficult to gauge.

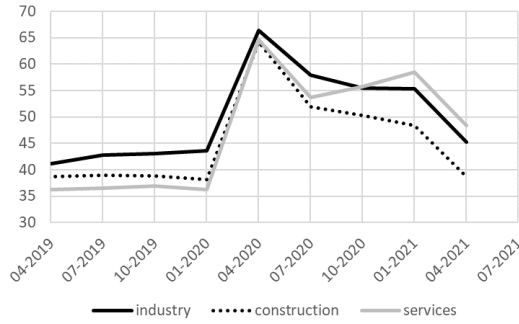
Graph 2.2: uncertainty indicators Germany (business)



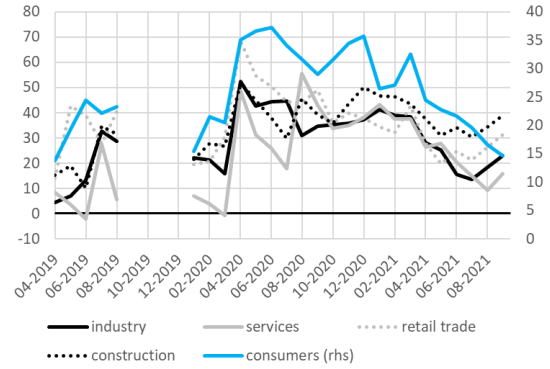
18 More information on the methodology underlying the calculation of the University of Oxford COVID-19 stringency indices can be obtained in a dedicated [working paper](#).

19 The only exception is the uncertainty indicator for the Albanian services sector, which peaked in August 2020.

Graph 2.3: uncertainty indicators Austria (business)



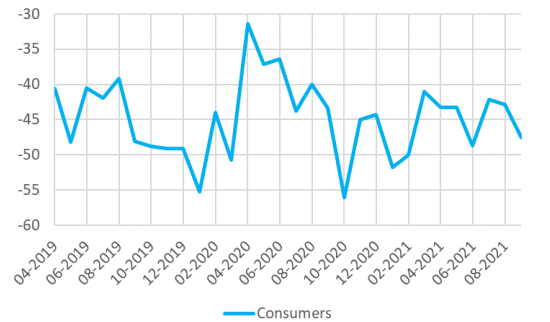
Graph 2.7: uncertainty indicators Albania



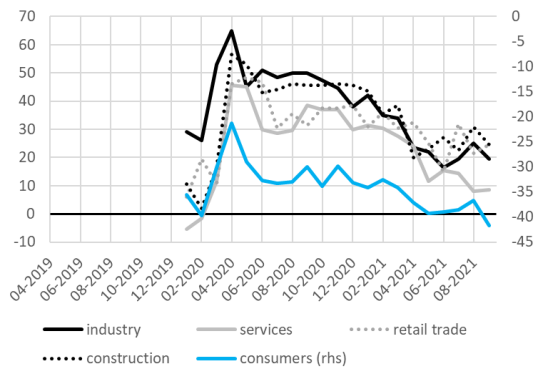
Graph 2.4: uncertainty indicator Austria (consumers)



Graph 2.8: uncertainty indicator Luxembourg (consumers)



Graph 2.5: uncertainty indicators Finland



Graph 2.6: uncertainty indicator Poland (consumers)



The plausibility of the results of the new uncertainty questions can also be illustrated by means of an extended data set, which includes the country-sector combinations for which data from both the testing phase in spring/summer 2019 and the period since May 2021 are available. The expectation is that the average uncertainty levels registered since May 2021 are still impacted by the pandemic and, hence, are higher than those prevailing before the outbreak of COVID-19, in 2019.

Indeed, across all surveyed business sectors, Table 2.2 shows that uncertainty levels in 2021 were significantly higher than in 2019 (see dark green cells).

Table 2.2: average uncertainty levels

	spring/summer 2019*	May – September 2021
Industry		
Germany	30.2	34.5
Croatia	-11.7	2.7
Italy	26.1	28.1
Cyprus	13.7	62.1
Hungary	9.6	23.3
Austria	-27.1	15.5
Albania	17.2	19.1
Services		
Germany	-2.7	20.3
Spain	-6.8	18.0
Croatia	-9.8	21.1
Italy	22.1	28.7
Cyprus	-15.4	40.4
Hungary	0.2	26.5
Austria	-38.5	2.1
Sweden	6.7	6.9
Albania	8.5	17.6
Serbia	18.7	30.6
Retail trade		
Germany	22.2	41.0
Spain	1.3	25.8
Croatia	-13.2	24.2
Cyprus	42.4	67.4
Hungary	4.1	24.5
Austria	-6.4	30.1
Sweden	9.5	15.5
Albania	32.8	24.7
Serbia	23.1	37.0
Construction		
Germany	-16.9	13.8
Croatia	-12.9	4.6
Cyprus	12.7	43.7
Hungary	8.5	13.1
Austria	-38.0	-5.7
Consumers		
Greece	23.2	0.1
Spain	-10.3	-6.2
Bulgaria	10.8	2.8
Croatia	-18.1	-16.2
Italy	-1.2	-3.3
Cyprus	-1.7	0.8
Latvia	5.1	1.7
Luxembourg	-42.1	-44.9
Hungary	9.3	10.8
Netherlands	-6.7	-13.7
Austria	-40.5	-37.7
Poland	2.6	3.2
Finland	-34.1	-39.1
Sweden	-43.3	-44.3
Albania	20.6	19.0

Note: Green cells highlight cases in which uncertainty in 2021 is higher than in 2019, the opposite holding true for the red cells. In-/de-creases by less than 3 points are marked in light green/orange.

The results from the consumer surveys are less clear-cut, as six countries with higher uncertainty levels in 2021 compared to 2019

contrast with nine countries where the opposite holds true. This could be due to the fact that the impact of the crisis on jobs and incomes was considerably cushioned through governments' support schemes and the possibility to work remotely. In addition, the limitation of consumption possibilities during lockdowns resulted in a higher propensity to save²⁰. The combination of relatively stable incomes and higher savings due to reduced consumption might explain the more benign assessment of uncertainty by households compared to businesses.

A final plausibility check of the new uncertainty indicators focusses on their relation to 'confidence' indicators. While the latter measure the extent to which economic actors are optimistic about their (past, present or future) economic situation, based on their assessment of sales, orders, etc.²¹, uncertainty captures the deviation of possible outcomes around the central expectation. It follows that high readings of the uncertainty indicators are in principle compatible with both low or high levels of confidence²². However, in practice, they seem to mainly respond to a worsening of the economy²³. This is evidenced by Table 2.3, which shows the correlations between the new uncertainty gauges and the corresponding confidence indicators to be consistently and, in almost all cases, significantly, negative.

20 See the discussion in the special topic of the 2021-q1 EBCI on the impact of the crisis on different categories of consumers.

21 The EU BCS programme features confidence indicators for every business sector (industry, services, retail trade, construction), as well as for consumers. It should be noted that the confidence indicators do not only reflect businesses'/consumers' expectations, but also their assessments of the present and developments in the recent past. More information on the survey questions feeding into the indicators can be found in the programme's Methodological User Guide (pp. 15-18).

22 This is in particular true when considering that the uncertainty questions have been intentionally formulated such that they do not refer to the term "uncertain/ty", which tends to be associated with negative developments (see previous section).

23 That observation is in line with an analysis of the Austrian survey-based uncertainty measure conducted by Glocker and Hoelzl in 2021: A direct measure of subjective business uncertainty (degruyter.com)

Table 2.3: correlation between confidence and uncertainty indicators

Germany (04/2019-09/2021)	industry	-0.53
	services	-0.80
	retail trade	-0.60
	construction	-0.93
Austria (06/2019-09/2021)	industry*	-0.82
	services*	-0.94
	construction*	-0.91
	consumers	-0.12
Finland (01/2020-09/2021)	industry	-0.85
	services	-0.80
	retail trade	-0.27
	construction	-0.81
	consumers	-0.80
Poland (04/2019-09/2021)	consumers	-0.86
Albania (01/2020-09/2021)	industry	-0.70
	services	-0.66
	retail trade	-0.84
	construction	-0.40
	consumers	-0.87
Luxembourg (04/2019-09/2021)	consumers	-0.25

* Austrian uncertainty series for the business sectors are only available at quarterly frequency, but have a longer history. The reported correlations refer to the period from 2016-q1 to 2021-q2.

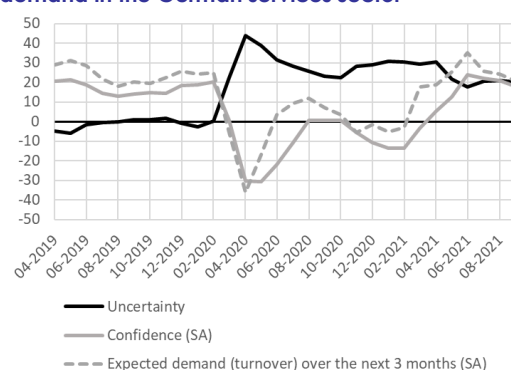
Clearly, these correlations are based on short data samples, and more observations are needed to conclude on the extent of the negative relationship between the uncertainty and confidence measures. In any case, the uncertainty indicators are not simple mirror images of the confidence indicators. A first illustration is the fact that, at EU level, confidence in all surveyed business sectors was significantly higher in the summer 2021 than in spring/summer 2019²⁴. If uncertainty was a mirror image of confidence, uncertainty in 2021 should thus be lower than in 2019. However, the opposite is true, as evidenced by the green cells in Table 2.2.

The German services sector provides further illustration of the difference between confidence and uncertainty (see Graph 2.9). During the first wave of the pandemic, in spring 2020, confidence and demand expectations collapsed, as far-reaching containment measures with a direct effect on

customer-facing services (e.g. restaurants and hotels) were enacted. The measures were, at that point, genuinely unprecedented and there was a lack of clarity as to their duration, the extent of policy support measures by the government, etc. Accordingly, uncertainty soared. The second wave of the pandemic, which started in autumn 2020 and dragged well into the winter, again brought confidence and demand expectations down. However, uncertainty showed virtually no reaction.

A likely reason is that the containment measures that were re-introduced in response to the second wave of the pandemic were not unprecedented any more (i.e. there was some “experience” of what impact to expect from them, some idea how long they would likely remain in effect, etc.).

Graph 2.9: uncertainty, confidence and expected demand in the German services sector



A comparison with alternative uncertainty indicators

A question of obvious relevance is how the new uncertainty indicators compare to the existing ones. In particular, are there any significant differences in the evolution of the indicators and, if so, do the results of the new indicators appear to be better suited to capture uncertainty, at least in the specific circumstances of the COVID-19 crisis?

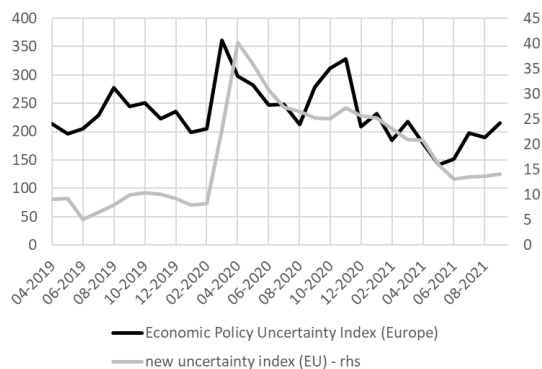
Furthermore, how do the new indicators compare to the existing ones in terms of the characteristic level of volatility (low volatility is seen as a desirable quality as a smooth indicator will be easier to interpret and deliver a faster signal)?

24 Average confidence in the EU in the periods April-August 2019/May-September 2021 was at -4.7/11.8 in industry and 11.1/16.1 in services.

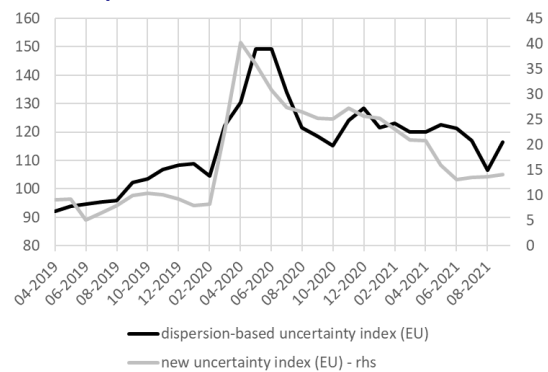
To answer those questions, we construct an aggregate ²⁵ uncertainty indicator for the EU and compare it to the European [Economic Policy Uncertainty Index](#) (EPUI) by Baker et al. (2016), which is arguably the most well-known and frequently used uncertainty gauge in Europe. As a second reference series, we look at an uncertainty measure derived from the dispersion of (EU) business managers' and consumers' assessments of their future business/financial situation²⁶. Due to its reliance on survey data, the latter indicator is an obvious choice for a comparison with the new direct uncertainty gauge.

Graphs 2.10 and 2.11 display the new (EU) uncertainty indicator alongside the EPUI and the dispersion-based alternative.

Graph 2.10: European EPUI and new (EU) uncertainty indicator



Graph 2.11: Dispersion-based and new (EU) uncertainty indicators



While all of the indicators show a marked peak in the course of the first COVID-19 wave, the exact month when this occurs differs. The EPUI peaks already in March and thus one to two months before the other two uncertainty indices. This makes sense as it records the prevalence of economic uncertainty in the media and it is the latter which subsequently shapes peoples' perceptions of uncertainty. When comparing the new and the dispersion-based uncertainty indicators, the climax of the former in April seems plausible in the light of the far-reaching containment measures which were in most EU countries adopted in March and still in effect in April. The peak of the dispersion-based index in May/June, by contrast, appears somewhat late, considering that the most stringent measures were being lifted at that time. In sum, the new uncertainty indicator and EPUI detect rising uncertainty more quickly than the dispersion-based measure.

A second interesting difference among the uncertainty indices relates to the speed at which uncertainty subsides. Both the new uncertainty index and the dispersion-based gauge suggest that uncertainty evaporates only very gradually. It took the dispersion-based index until August 2021 to (temporarily) fall back to pre-pandemic levels. The new uncertainty index is still higher than before the outbreak of COVID-19. The EPUI, by contrast, signals that uncertainty was back to pre-pandemic levels already in August 2020. Following another peak during the second (autumn) wave of the pandemic, the EPUI fell even more significantly below pre-pandemic levels in May/June 2021. The current level of the EPUI corresponds to its reading in February 2020, i.e. on the eve of the outbreak

25 The EU-aggregate is constructed in several steps: (i) For every sector, a "proxy" indicator is built (reporting a weighted average of uncertainty in the (few) countries which started the data collection as early as 2019), as well as a "full" indicator (reporting a weighted average across all EU countries as of 05/2021). (ii) For every sector, the EU aggregate corresponds to the "full" indicator for the period as of 05/2021 and, for the preceding period, to the "proxy" indicator, corrected for its average difference to the "full" indicator over the overlapping period 05/2021-09/2021. The level correction ensures that the uncertainty indicator does not suffer from a structural break where the "proxy" and the "full" indicators meet. (iii) The (economy-wide) EU uncertainty indicator is calculated as the weighted average of the sector-specific ones, using the same sectoral weights as in the 'Economic Sentiment Indicator' (see the Methodological User Guide for the BCS programme, p. 18).

26 Concretely, we resort to the 'FW-Disp' indicator proposed by Girardi and Reuter (2016), which reports the average dispersion across all 22 (monthly and quarterly) forward-looking survey questions contained in the EU BCS Programme.

of COVID-19 on the continent. The relatively fast normalisation of uncertainty levels according to the EPUI is likely to be rooted in its focus on media content, which tends to be fast in picking up new, uncertainty-generating developments but equally quick in dropping them, once their news content has vanished.

A likely reason for the unintuitive EPUI results after the second wave of the pandemic is its exclusive focus on media content. The media approach may be good at detecting rising uncertainty, but less good in capturing persisting economic uncertainty.

Finally, the indicators also seem to differ in terms of their characteristic level of month-to-month volatility. From May 2020 to June 2021, the new uncertainty indicator moves steadily downwards, i.e. in every single month, with the exception of November 2020 when it went up as the second wave of the pandemic hit. This favourably compares to the other two indicators which display a higher degree of short-term volatility, making the indicators harder to interpret.

Uncertainty at the current juncture

Having established the plausibility of the new uncertainty indicator and its intuitive properties compared to existing alternative measures, an interesting question is what the new indicator is telling us about the economy at the current juncture. For the purpose of the analysis, we focus on Germany and Finland, for which ‘long’ time series for uncertainty (starting respectively in April 2019 and January 2020) are available for all business sectors covered by the BCS Programme.

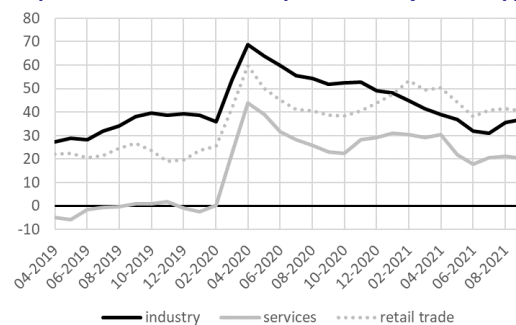
As can be seen in Graphs 2.12 and 2.13, uncertainty levels have in both countries and all sectors receded from their respective peaks during the first COVID-19 wave in spring 2020.

Nevertheless, there are important cross-sectoral differences. Uncertainty in industry has followed a more or less steady downward path. In September, uncertainty was back to (Germany) or even below (Finland) pre-pandemic levels. In the remaining sectors, the rapid decrease of uncertainty that followed the first wave of the pandemic got interrupted by

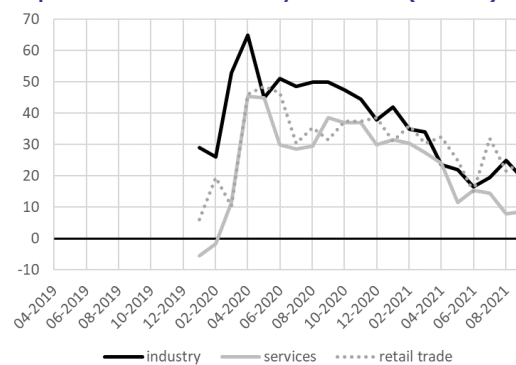
a renewed increase, reflecting the second infection wave. It is only as of early 2021 that the indicators have been posting significant drops again. In Germany, uncertainty in services and retail trade has so far only subsided by some 50-60% of the initial increase in the first wave of the pandemic. In Finland, it is by around 80%.

The different pattern between industry and the other sectors can be related to the fact that, barring the first infection wave, the restrictions in place throughout the pandemic have mainly hit the services and retail trade sectors. The lingering threat of the pandemic can explain why, at the current juncture, levels of uncertainty in services and retail trade are still high compared to industry²⁷.

Graph 2.12: New uncertainty indicators (Germany)



Graph 2.13: New uncertainty indicators (Finland)

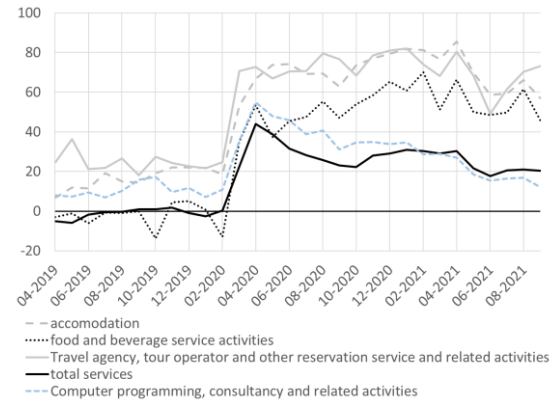


The latter observation is even more visible when zooming into the services sub-sectors. Graphs 2.14 and 2.15 show the uncertainty indicator for a selection of services sub-

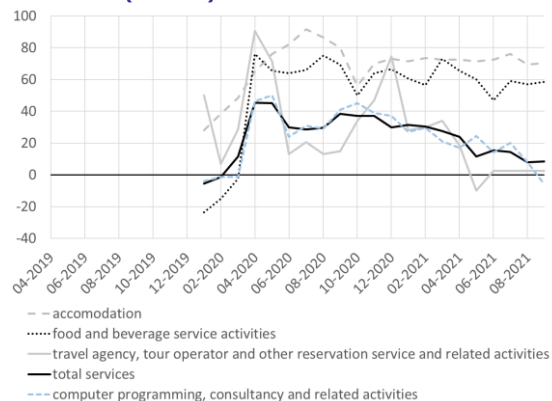
²⁷ The August/September uptick in German industry uncertainty is not in contradiction to this interpretation, as it is likely to be a reflection of growing supply constraints in the sector, rather than concerns about a possible re-introduction of containment measures.

sectors, as well as the sectoral total. It emerges that the evolution of uncertainty for the total services sector (down, but still above pre-pandemic levels) masks opposing realities: in client-facing services, hardest hit by past and (potential future) restrictions, uncertainty has not yet dissipated. Namely, in accommodation and gastronomy it remains almost as high as at the peak of the first infection wave. The same goes also for travel agencies/tour operators in Germany (but not in Finland). On the other side of the spectrum, in computer programming, consultancy and related activities, uncertainty has fully returned to pre-pandemic levels.

Graph 2.14: New uncertainty indicators by services sub-sector (Germany)



Graph 2.15: New uncertainty indicators by services sub-sector (Finland)



Conclusions

In May 2021, new uncertainty questions have been introduced in the Joint Harmonised EU Programme of Business and Consumer Surveys. This special topic takes a look at the new data sets of perceived economic uncertainty from all countries, especially those for which longer series are available. It

assesses the plausibility of their evolution in light of the COVID-19 pandemic.

Based on the new indicator, uncertainty appears to be at significantly higher levels in 2021 than in 2019, across all countries and all business sectors. For countries for which uninterrupted series are available, uncertainty has increased dramatically in spring 2020, at the outbreak of the virus, marking the highest uncertainty level registered throughout the observation period. A number of time series (i.e. country-sector combinations) record another increase in autumn/winter 2020, reflecting the second wave of the pandemic. Furthermore, all uncertainty time series display a gradual rather than abrupt decline from their peak in spring 2020.

Uncertainty measures the deviation of possible outcomes around a central expectation, and is thus conceptually different from ‘confidence’, which targets the central expectation itself. Nevertheless, the analysis shows that in the short period since 2019, uncertainty has been negatively correlated to developments in confidence. Thus, high uncertainty has generally coincided with negative developments in confidence/the economy. However, the analysis provides evidence that the new survey-based measure of uncertainty is more than a simple mirror image of existing indicators of confidence.

To get a better idea of the quality of the new uncertainty indicators, they are compared to a selection of existing measures of uncertainty, namely the Economic Policy Uncertainty Index and an indicator derived from the dispersion of (EU) business managers’ and consumers’ opinions about their future business/financial situation. To do so, an EU aggregate was estimated on the basis of available data. Results suggest that the new indicator follows a similar trend as previous uncertainty measures but is also less volatile, and, compared to the dispersion-based index, provides informational content at an earlier stage. From a conceptual point of view, the new survey-based uncertainty indicator has the additional advantage that it is directly based on answers of firms and consumers about the foreseeability of future economic developments, and is thus a genuine and direct measure of perceived uncertainty.

Finally, the sectoral breakdown of the results delivers intuitive cross-sector and cross-branch differences. Focusing on the current juncture, the industrial sector seems largely unaffected by the second wave of the pandemic across all countries, as containment measures taken during the second wave

focussed mainly on customer-facing services and the retail sector.

Based on the good results of the analysis, the Commission will start to publish the new uncertainty indicators in October 2021, in its regular press release on latest survey results.

ANNEX

Reference series

Confidence indicators	Reference series from Eurostat, via Ecowin (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 except prices; 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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