



European
Commission

ISSN 2443-8049 (online)

European Business Cycle Indicators

4th Quarter 2021

Focus on investment activity & business
sentiment across subsectors after COVID

TECHNICAL PAPER 053 | JANUARY 2022

EUROPEAN ECONOMY



Economic and
Financial Affairs

European Economy Technical Papers are reports and data compiled by the staff of the European Commission's Directorate-General for Economic and Financial Affairs.

Authorised for publication by Reinhard Felke, Director for Policy, Coordination, Economic Forecasts and Communication.

The Report is released every quarter of the year.

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Luxembourg: Publications Office of the European Union, 2022

PDF ISBN 978-92-76-46499-0 ISSN 2443-8049 doi:10.2765/021837 KC-BF-22-001-EN-N

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European Commission
Directorate-General for Economic and Financial Affairs

European Business Cycle Indicators

4th Quarter 2021

Focus on investment activity and business sentiment across subsectors after COVID

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OVERVIEW

Recent developments in survey indicators

- Following the broad sideways movement of the Economic Sentiment Indicator (ESI) in the third quarter of 2021, the fourth quarter of 2021 saw a weakening in sentiment. The ESI finished the fourth quarter 2.1 (EU) / 2.5 (EA) points below its reading of September 2021, but remained at a very high level in both regions (at 114.5 in the EU and 115.3 in the EA).
- The Employment Expectations Indicator (EEI) improved over the quarter for the fourth consecutive time. The increases compared to September were rather moderate (+0.7 points in the EU, +0.6 points in the EA), suggesting that the indicator's rally since the onset of 2021 loses steam.
- EU/EA confidence weakened markedly in services and among consumers, while it booked a moderate increase in construction. Confidence in industry and retail trade stayed virtually unchanged. The level of confidence is generally high when compared to long-term averages, especially in industry, construction and retail trade.
- The ESI deteriorated markedly in Germany (-5.0), the Netherlands (-4.8) and, to a lesser extent, in Spain (-0.9), while sentiment brightened in France (+3.7), Poland (+2.6) and Italy (+1.1). In December 2021, the ESI stood above its long-term average of 100 and its pre-pandemic level in all six countries.
- In October, capacity utilisation in manufacturing edged down for the first time since the onset of its recovery in July 2020 (-1.2 points in the EU, -0.9 points in the EA compared to July). At 81.6% (EU) / 82.1% (EA), the indicator remained above its long-term average of just above 80½% in both regions. Capacity utilisation in services increased by 1.0 percentage point in the EU (to 89.2%) and 0.9 points in the EA (to 88.9%) compared to July. In both regions, the increases lifted the indicator above its long-term average (88.9% and 88.6%).
- The share of industry managers pointing to the shortage of labour force and material and/or equipment as factors limiting production reached the highest values on record in the October survey.
- Consumers' quantitative price perceptions and expectations continued to increase in 2021-Q4. The pattern was consistently observed across all income and age groups.

Results of the October/November 2021 survey on investment in the manufacturing and services sectors

This section analyses the results of specific questions on investment included in the October-November surveys for the manufacturing and services sectors, enquiring about firms' investment activity in 2021 and plans for 2022. On balance, in industry, managers' assessment of the evolution of their investment improved significantly in 2021 and was above its long-term average. For 2022, the balance of opinions expecting an increase in investment compared to 2021 rose further. In services - where questions on investment activity were asked for the first time in October/November 2021 - managers reported investment to have increased in 2021 compared to 2020 and foresaw a broadly similar situation for 2022. The survey also provides information on the factors influencing investment (demand, financial resources, technical, other) and asks firms to assign their investments to four categories (replacement, extension, streamline, other).

Special topic: Business sentiment across subsectors since the start of the COVID crisis

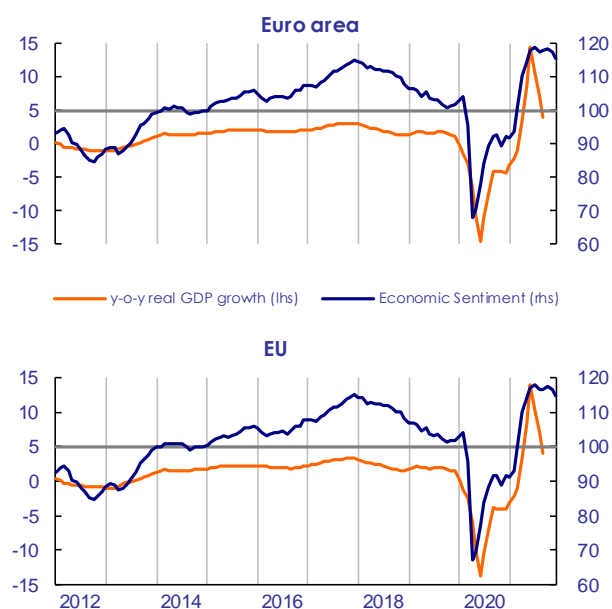
By the third quarter of 2021, the EU economy as a whole had regained its pre-pandemic level of economic activity. However, there is still a marked gap across sectors. The special topic looks at detailed business survey data for individual branches, so as to identify which activities have been most or least affected. Business sentiment in contact-intensive services (travel services, accommodation and food services), heavily impacted by the restrictions imposed after the initial wave of the pandemic, has also been the most affected during the two subsequent COVID waves. After a steep rebound in spring and early summer 2021, expectations of managers from contact-intensive services took another hit in the latest wave emerging in November 2021. By contrast, industry stands out as the sector where managers' business sentiment across branches has remained largely unaffected by the subsequent waves of the pandemic and has in almost all cases fully recovered from the steep fall suffered during the initial COVID wave.

1. RECENT DEVELOPMENTS IN SURVEY INDICATORS

1.1. EU and euro area

Following the broad sideways movement of the EU and euro-area Economic Sentiment Indicators (ESI) in the third quarter of 2021, which had halted their rally in the aftermath of the first three COVID-19 waves, the fourth quarter of 2021 saw a weakening in sentiment (see Graph 1.1.1).

Graph 1.1.1: Economic Sentiment Indicator



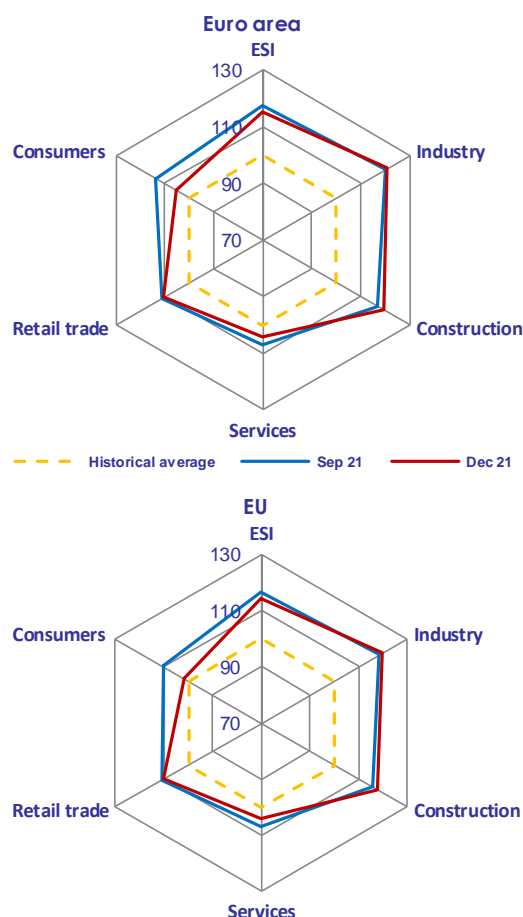
Note: The horizontal line (rhs) marks the long-term average of the survey indicators. Confidence indicators are expressed in balances of opinion and hard data in y-o-y changes. If necessary, monthly frequency is obtained by linear interpolation of quarterly data.

The ESI finished the fourth quarter -2.1 (EU) / -2.5 (EA) points below its level of September 2021. In spite of the losses, the indicator's current reading (114.5 in the EU, 115.3 in the EA) is still at a very high level in both regions.

From a sectoral perspective (see Graph 1.1.2), EU/EA confidence weakened markedly in services and among consumers, while it booked a moderate increase in construction. Confidence in industry and retail trade stayed virtually unchanged.

The level of confidence is generally high when compared to long-term averages, especially in industry, construction and retail trade.

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.

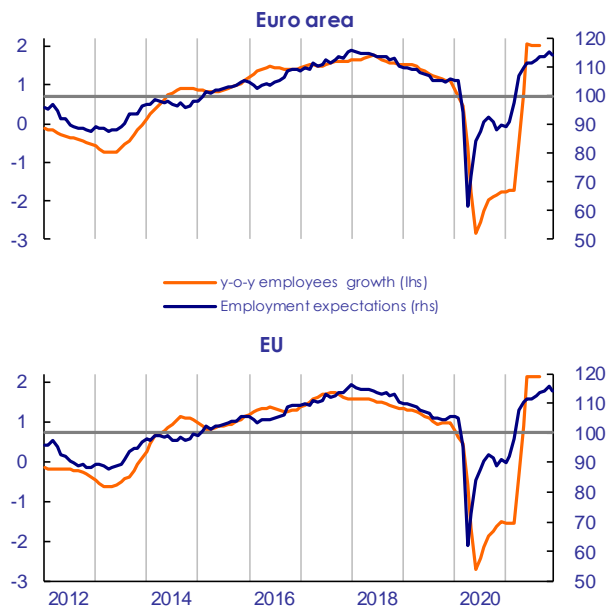
Among the six largest EU economies, economic sentiment deteriorated markedly over the fourth quarter in Germany (-5.0) and the Netherlands (-4.8), owing to plummeting confidence in services/among consumers and, in the case of Germany, retail trade. Sentiment in Spain saw a comparatively mild deterioration (-0.9), while sentiment brightened in France (+3.7), Poland (+2.6) and, to a lesser extent, Italy (+1.1). In

December 2021, the ESI stood 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 weakened (from 56.2 points in September to 53.3 points in December), the same holding true for the Ifo Business Climate Index (for Germany), which shed 4.3 points on the quarter and fell below the pre-pandemic level it had outstripped since the summer of 2021.

Despite its softening in December, the Employment Expectations Indicator (EEI) improved over the quarter for the fourth consecutive time (see Graph 1.1.3). The increases compared to September (+0.7 points in the EU, +0.6 points in the EA), however, are a far cry from the ones registered in the first two quarters of 2021, suggesting that the indicator's rally loses steam. Zooming into the EEI's sectoral components, employment plans in December were more optimistic than in September among industry managers, while no significant changes were posted in the other surveyed business sectors.

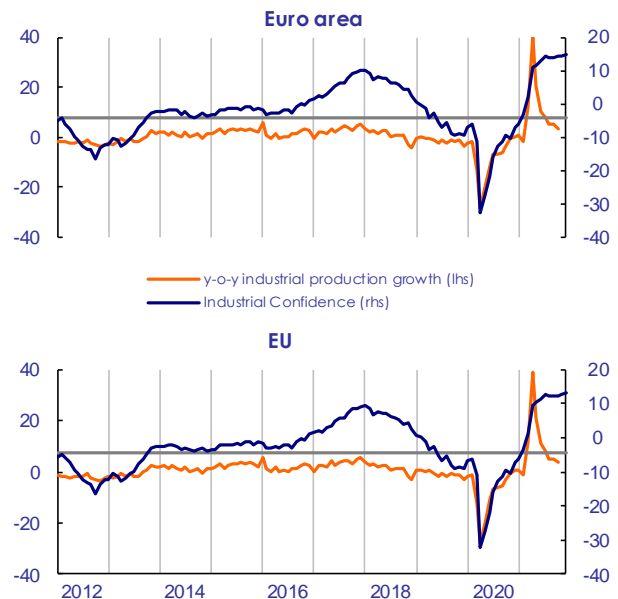
Graph 1.1.3: Employment expectations indicator



Sector developments

Industry confidence completed the second consecutive quarter of virtually flat readings, gaining a modest 1.1 (EU) / 0.8 (EA) points compared to September (see Graph 1.1.4). Yet, the small increase was enough to lift the indicator to a new all-time high in December (13.2 in the EU, 14.9 in the EA).

Graph 1.1.4: Industry Confidence indicator



Zooming into individual components of industrial confidence, managers' assessment of **order books** improved throughout the quarter and reached a new all-time high in December. Managers' appraisals of **stocks** stayed unchanged at levels indicating historical scarcity. Also **production expectations** remained unchanged (EA) or were only mildly up (EU). Deviating from the other two components, the level of expectations in December fell short of the record-score reached in April 2021.

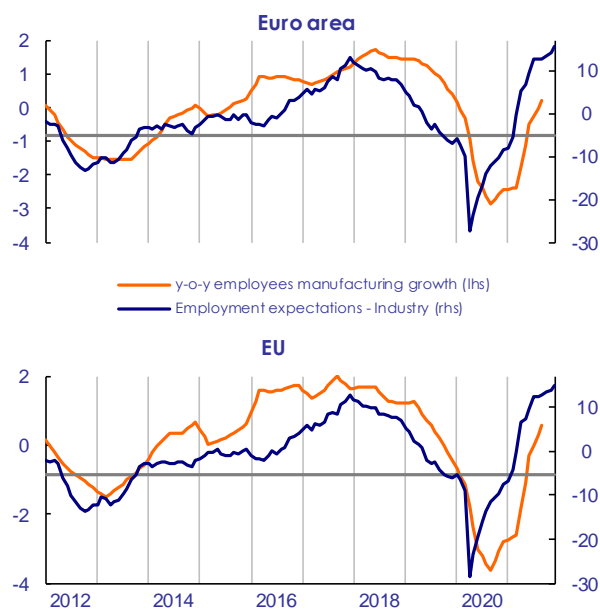
Of the components not included in the confidence indicator, managers' appraisals of **past production** recovered partially from the sharp drop posted in 2021-Q3. The assessments of **export order books**, which are already since summer 2021 exceptionally positive, saw another mild improvement on the quarter and a new all-time high in November.

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

row and marked a new record-score in December. Similarly, **selling price expectations** in industry continued their unprecedented rally in the fourth quarter and reached another all-time high in November, before softening somewhat in December.

Amongst the largest EU economies, industry confidence increased strongly in France (+5.6) and, to a lesser extent, in Spain (+2.6), Italy (+2.1) and Poland (+1.6). Confidence was virtually unchanged in Germany (-0.3), while slightly down in the Netherlands (-0.9).

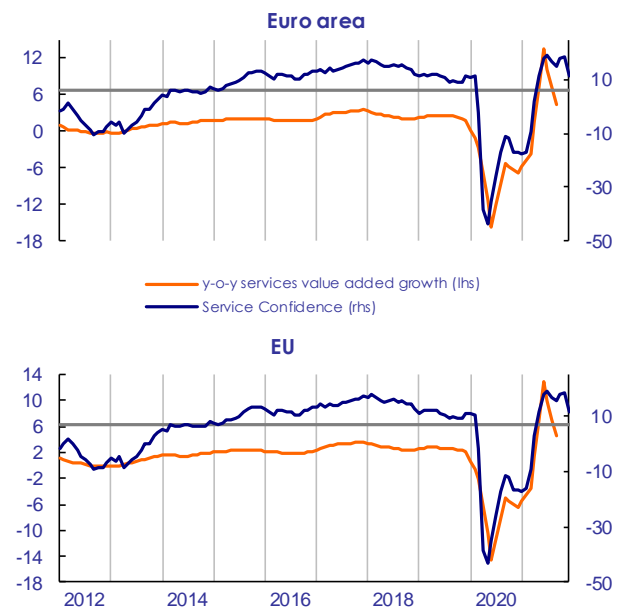
Graph 1.1.5: Employment expectations in Industry



According to the quarterly manufacturing survey (carried out in October), **capacity utilisation** in manufacturing edged down for the first time since the onset of its recovery in July 2020 (-1.2 points in the EU, -0.9 points in the EA compared to July). At 81.6% (EU) / 82.1% (EA), the indicator remained in both regions above its long-term average of 80.6% (EU) / 80.7% (EA).

The share of industry managers pointing to the shortage of labour force (23.3% in the EU, 22.6 in the EA) and material and/or equipment (49.4% in the EU, 53.2% in the EA) as **factors limiting production** reached the highest values on record in the October survey.

Graph 1.1.6: Services Confidence indicator

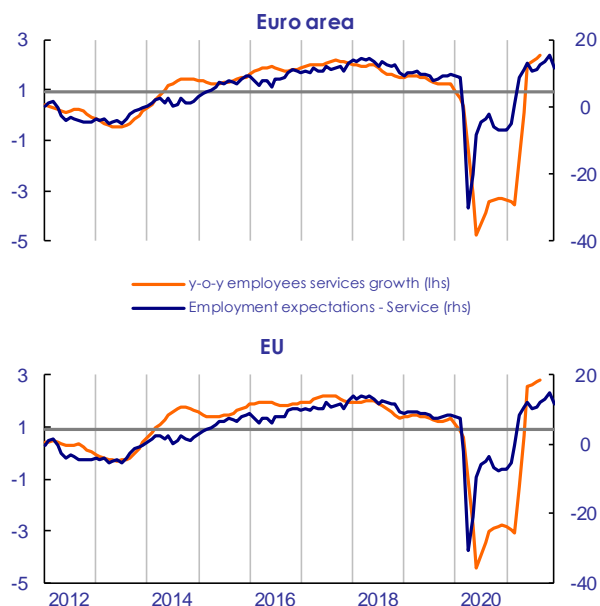


Confidence in the **services sector** deteriorated for the second quarter running. The indicator slumped by 3.6 (EU) / 4.0 (EA) points compared to September. Scoring at 11.9 (EU) / 11.2 (EA) points, services confidence in December is practically back to where it stood before the outbreak of COVID-19 on the continent, while still remaining comfortably above its long-term average (see Graph 1.1.6).

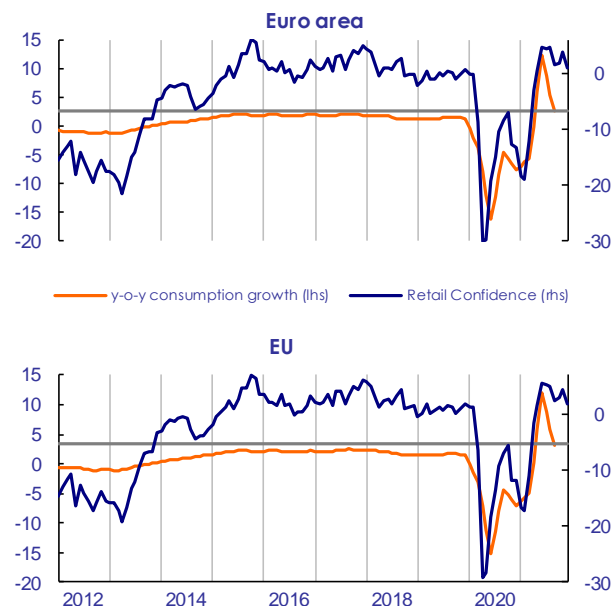
Looking into the components of services confidence, the decline resulted, first and foremost, from deteriorating views on **expected demand** and, to a lesser extent, more tepid appraisals of **past demand** and the **past business situation**.

In both the EA and the EU, **employment expectations in services** finished the fourth quarter virtually unchanged from the end of Q3, following their decline in December (see Graph 1.1.7). Managers' **selling price expectations** continued their unprecedented rally in the fourth quarter and reached another all-time high in November, before softening somewhat in December.

Graph 1.1.7: Employment expectations in services



Graph 1.1.8: Retail Trade Confidence indicator



Amongst the six largest EU Member States, confidence plummeted in Germany (-12.3) and booked (comparatively smaller) losses in the Netherlands (-5.7) and Spain (-5.2). Polish confidence stayed virtually unchanged (-0.2), while it firmed in France (+4.2) and Italy (+1.4).

Capacity utilisation in services, as measured by the quarterly survey conducted in October, increased by 1.0 percentage points in the EU (to 89.2%) and 0.9 percentage points in the EA (to 88.9%) compared to July. In both regions, the latest readings lifted the indicator above its long-term average (88.9% in the EU, 88.6% in the EA), but fell short of its pre-pandemic level of around 90½%.

In the fourth quarter 2021, **retail trade confidence** stayed broadly unchanged in the EU (-0.5) and the euro area (-0.3), scoring well above its long-term average and slightly higher than its pre-pandemic level in both regions (see Graph 1.1.8).

The broad sideways movement of retail confidence resulted from managers' significantly lower expectations regarding the **future business situation** being counterbalanced by a growing reported scarcity of **stocks** (which enter the confidence indicator with inverted sign). Same as in 2021-Q3, the fourth quarter saw another all-time low of the reported level of stocks, notably in November. Managers' appraisals of the **past business situation** stayed flat on the quarter.

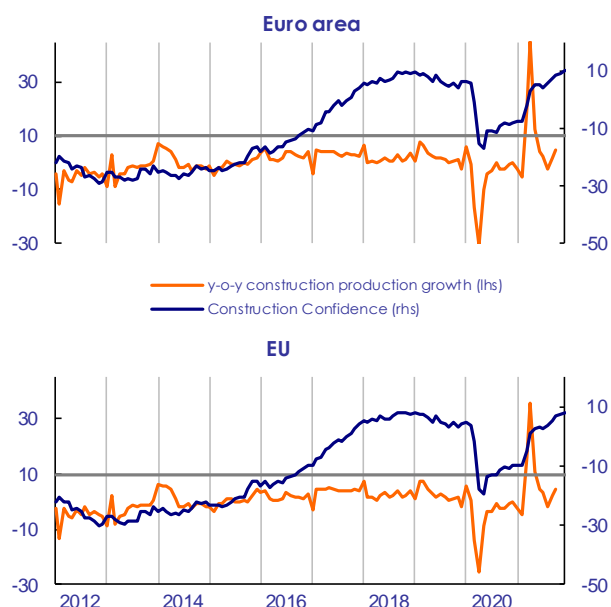
At the level of the six largest EU economies, confidence plummeted in Germany (-7.6), while it firmed strongly in France (+8.3) and, to a lesser extent, in the Netherlands (+3.9), Poland (+2.3), Italy (+1.1) and Spain (+0.9).

Construction confidence firmed for the sixth quarter running, ending 2021-Q4 2.6 (EU) / 2.7 (EA) points above its level in September (see Graph 1.1.9). In both regions, the December reading is the highest ever posted.

In terms of components, EU/EA managers' appraisals of **order books** brightened significantly, in the EA to a new record-score in December, while **employment expectations** stayed practically unchanged.

The share of construction managers pointing to shortage of labour force (31.2% in the EU, 30.1% in the EA) and shortage of material and/or equipment (25.5% in the EU, 27.5 in the EA) as **factors limiting building activity** reached yet another record high in December.

Graph 1.1.9: Construction Confidence indicator

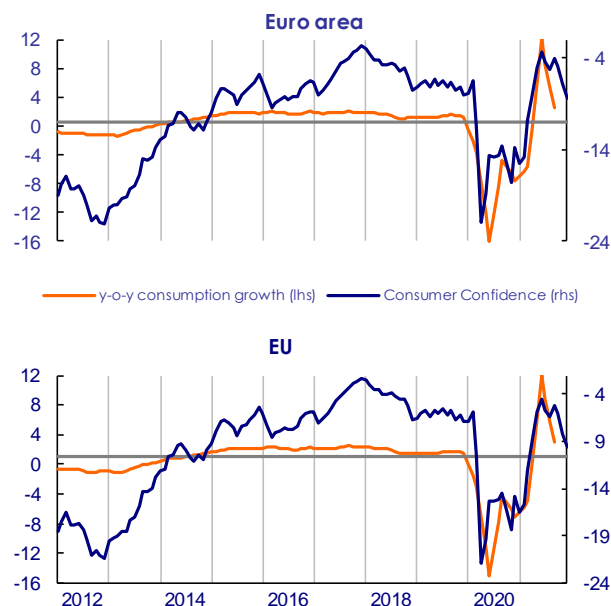


Construction confidence firmed in Italy (+5.9), Germany and France (both +3.7), as well as Poland (+2.8) and the Netherlands (+2.3). Spain stood out with a quarterly decline (-2.8). The indicator is above its long-term average in all of the six largest Member States but is still below its pre-pandemic level in Germany, France and Poland.

After broadly flat readings in 2021-Q3, **consumer confidence** posted significant declines in the fourth quarter of 2021 in both the EU (-4.4) and the EA (-4.3). In spite of the losses, both indicators remained above their respective long-term averages (see Graph 1.1.10).

Consumers were more pessimistic in respect of all aspects covered by the confidence indicator, i.e. their **past and expected personal financial situation**, their **intentions to make major purchases** and the **general economic situation of their country**.

Graph 1.1.10: Consumer Confidence indicator



While not included in the consumer confidence indicator, **consumers' savings expectations** decreased for the second quarter running, moving further away from the all-time high reached in May 2021.

In the six largest EU economies, consumer confidence took the largest quarterly hit on record in the Netherlands (-11.1) and posted significant, if less exceptional, losses in Germany (-4.7), Spain (-4.5), France (-3.4) and Poland (-3.2). Sentiment in Italy remained broadly unchanged (-0.7). In spite of the losses, the level of confidence in December 2021 outstripped long-term averages and pre-pandemic levels in all countries except for the Netherlands (where the indicator dropped below both benchmarks), Germany (where confidence fell below its pre-pandemic level) and Poland (where confidence fell back to its long-term average, far below pre-pandemic levels).

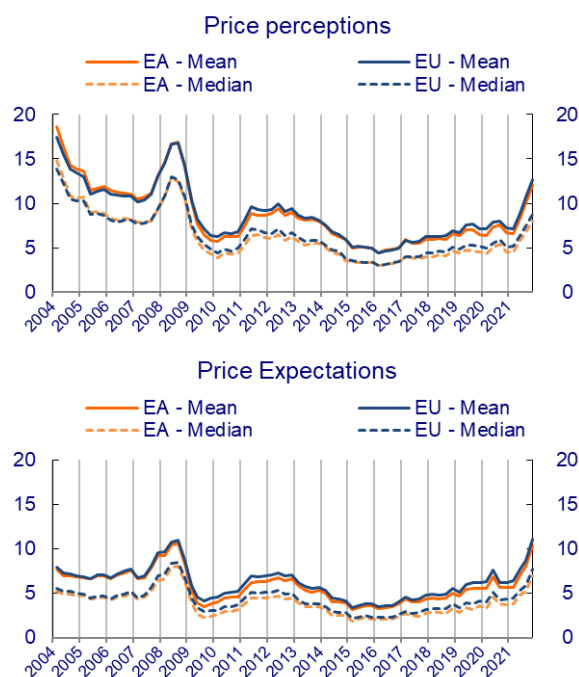
In the EU and the EA, both the mean and the median of **consumers' quantitative price perceptions and expectations** continued to increase in 2021-Q4, to levels last seen in 2008 (see Graph 1.1.11).¹ The persistent upward

¹ For more information on the quantitative inflation perceptions and expectations, see the special topic in the [EBCI 2019Q1](#).

trend was observed across all income and age groups, whereby the level of the inflation perceptions and expectations was, as usual, highest among the youngest consumers and those in the lowest income quartile, while lowest among the oldest and those in the highest income quartile.

The detailed results, also along other socio-economic breakdowns, such as gender and education level, can be downloaded from the [European Commission's website](#).

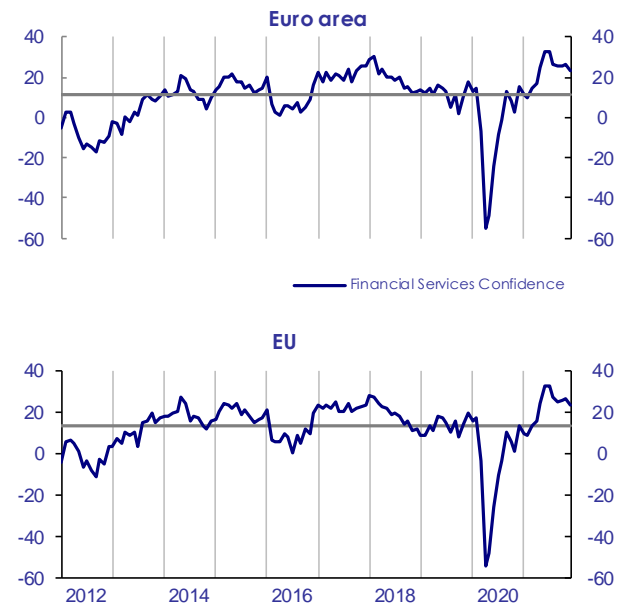
Graph 1.1.11: Euro area and EU quantitative consumer price perceptions and expectations



The **financial services confidence** indicator (not included in the ESI) fell for the second quarter running (-2.3 in the EU, -3.9 in the EA). Nonetheless, in December, 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 was caused by much more cautious **demand expectations** which were only partially outweighed by improved appraisals of **past demand** and the **past business situation**.

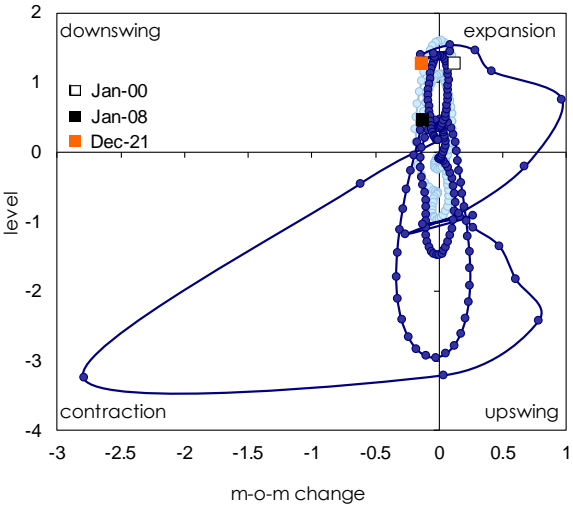
Graph 1.1.12: Financial Services Confidence indicator



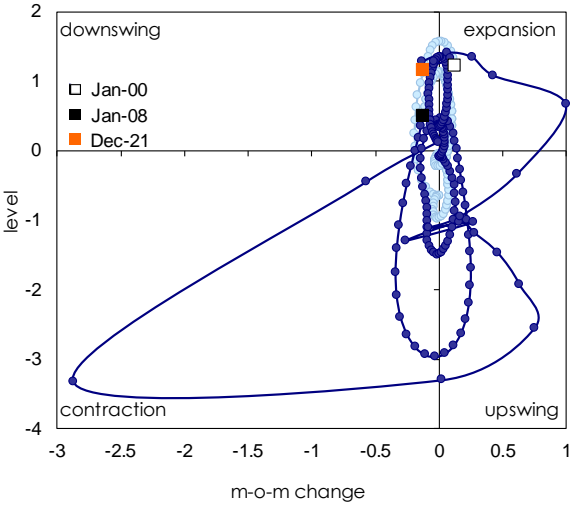
The cooling of sentiment in 2021-Q4, as captured by the ESI, also showed in the EU/EA **climate tracers** (see Annex for details). Both moved from the intersection between expansion and downswing, which they had occupied in September 2021, slightly deeper into the downswing quadrant (see Graphs 1.1.13 and 1.1.14).

The EU/EA sectoral climate tracers (see Graph 1.1.15) illustrate the different underlying forces. While the EU/EA industry tracers moved from the downswing to the expansion quadrant, the consumer and retail trade tracers did the contrary and the services tracers moved deeper into the downswing quadrant. The construction tracer stayed practically unchanged, on the intersection between downswing and expansion.

Graph 1.1.13: Euro area Climate Tracer

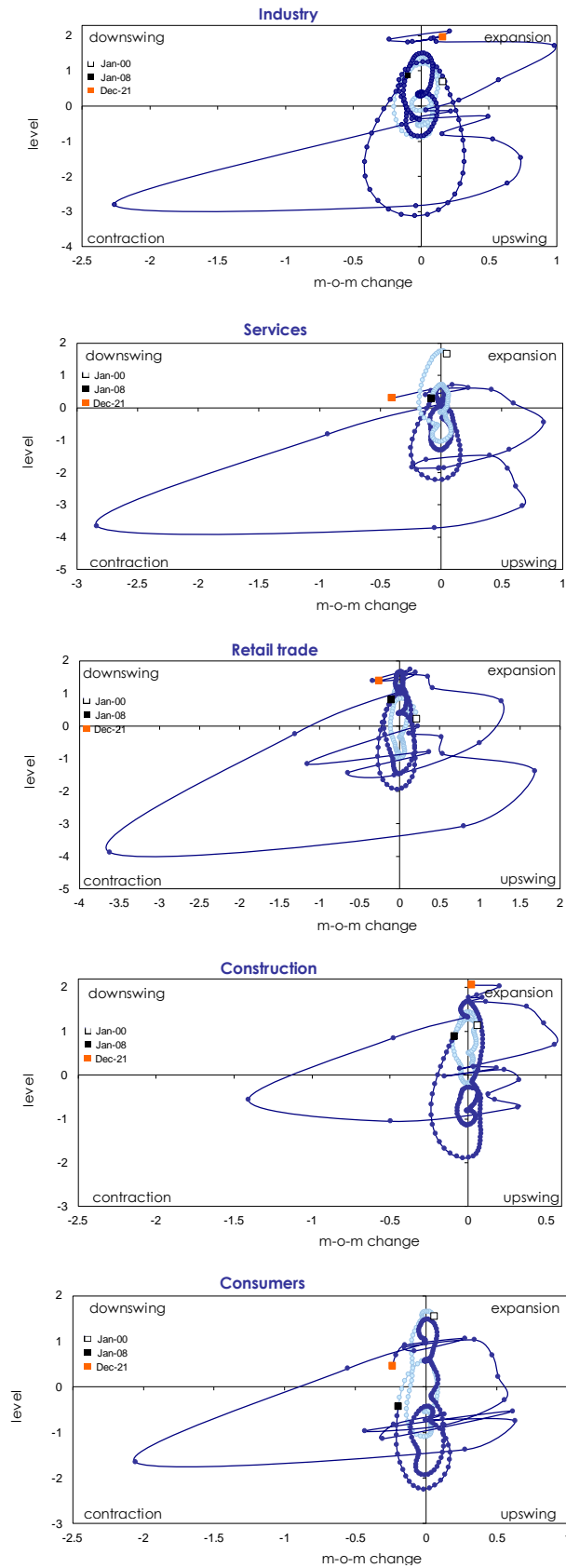


Graph 1.1.14: EU Climate Tracer

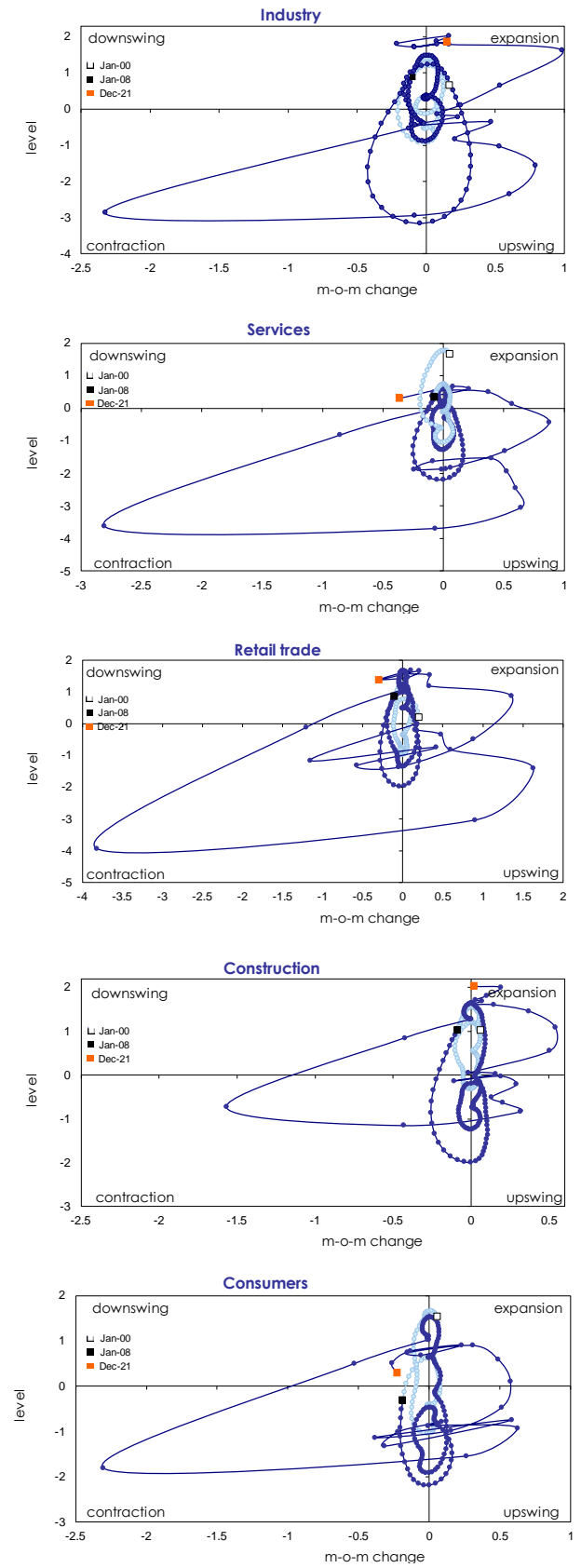


Graph 1.1.15: Economic climate tracers across sectors

Euro area



EU



1.2. Selected Member States

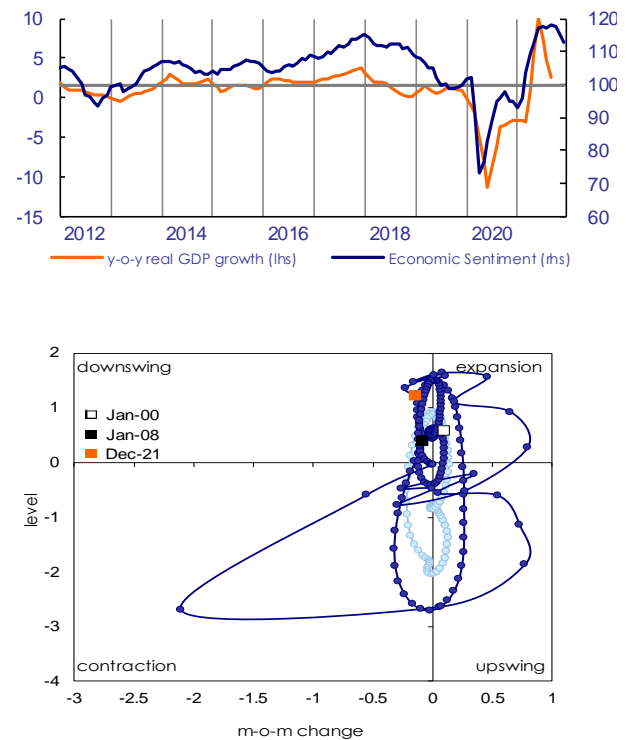
Over the fourth quarter of 2021, economic sentiment deteriorated markedly in Germany (-5.0) and the Netherlands (-4.8). Sentiment in Spain saw a comparatively mild deterioration (-0.9), while sentiment brightened in France (+3.7), Poland (+2.6) and, to a lesser extent, in Italy (+1.1). In December 2021, the ESI stood above its long-term average of 100 and its pre-pandemic level in all six countries.

After hitting a new all-time high in September, the **German** ESI deteriorated markedly in the course of 2021-Q4, finishing the fourth quarter 5.0 points lower than the preceding one. The indicator's level in December (113.0) nevertheless still exceeds its long-term average and pre-pandemic level by a huge margin. In line with the downbeat developments in the fourth quarter, the German climate tracer moved from the area signalling expansion to the downswing quadrant.

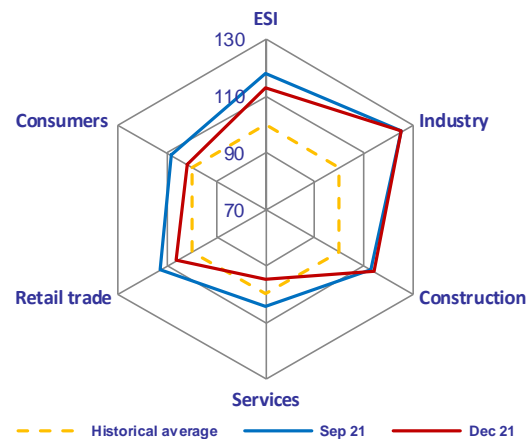
Downbeat sentiment reverberated in the Employment Expectations Indicator (EEI), which lost 1.7 points in the course of the fourth quarter, as significantly lower employment expectations among services and retail trade managers were only partially outweighed by marked improvements among industry and more cautious improvements among construction managers. Worth highlighting, December's reading marks the highest industry employment expectations on record.

From a sectoral perspective, the German radar chart (see Graph 1.2.2) shows that confidence evaporated in services and took a significant hit in retail trade and among consumers. Confidence among industry managers remained broadly stable, while construction bucked the trend with a gentle improvement. The level of confidence is above its long-term average in all sectors except for services.

Graph 1.2.1: Economic Sentiment Indicator and Climate Tracer for Germany

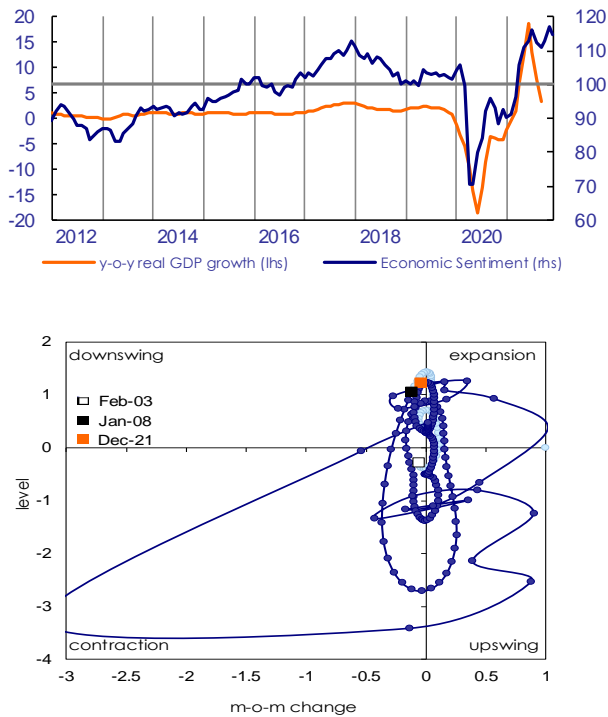


Graph 1.2.2: Radar Chart for Germany



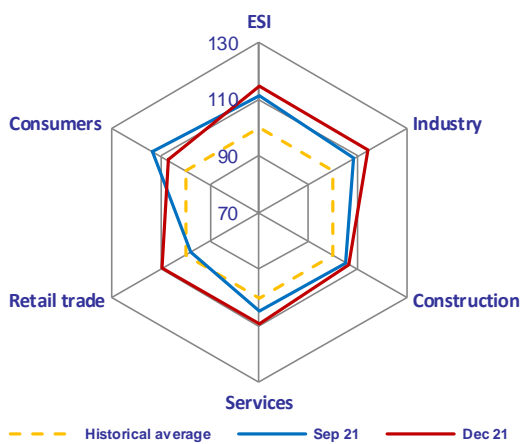
Sentiment in **France** rebounded from its drop in the third quarter, increasing by 3.7 points in the course of 2021-Q4. At 114.9 points, the indicator's reading in December was very comfortably above its long-term average and pre-pandemic level. Improved sentiment also showed in the French climate tracer which inched from a position firmly in the downswing quadrant to the intersection of the downswing and upswing area (see Graph 1.2.3).

Graph 1.2.3: Economic Sentiment Indicator and Climate Tracer for France



Following flat developments in the third quarter, the French EEI picked up again in 2021-Q4, firming by 2.6 points compared to September. The result reflected more optimistic employment plans in all surveyed business sectors, but most so among industry and retail trade managers. The employment plans in industry reached the best score on record in December.

Graph 1.2.4: Radar Chart for France



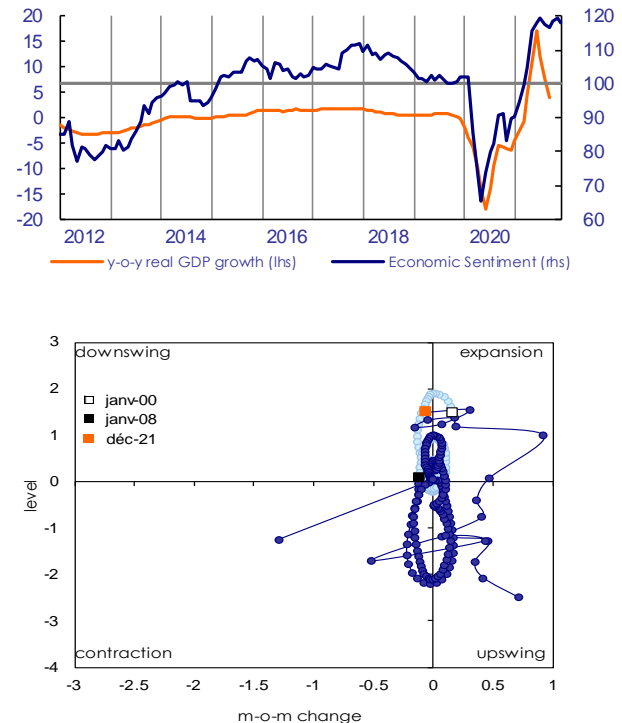
The French radar chart (see Graph 1.2.4) shows upbeat developments in all surveyed business

sectors, particularly in retail trade. Consumers defied the prevailing trend, posting a significant deterioration of sentiment. The level of confidence is well in excess of long-term averages in all surveyed parts of the economy.

In 2021-Q4, the **Italian ESI** continued the broad sideways movement already observed in the third quarter, gaining a moderate 1.1 points compared to September. At 117.9 points, the indicator stayed close to the 20-year high it had hit in July 2021. In line with the moderately improved ESI, the Italian climate tracer inched from a position firmly in the downswing quadrant to the intersection of the downswing and upswing area (see Graph 1.2.5).

The Italian EEI improved by 3.2 points compared to September, thanks to more optimistic employment expectations among industry, construction and retail trade managers. Employment expectations in services stayed virtually unchanged.

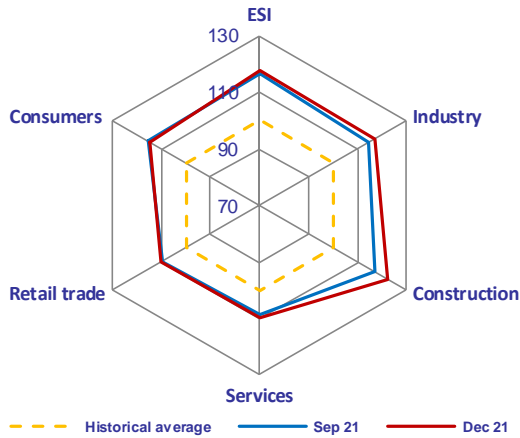
Graph 1.2.5: Economic Sentiment Indicator and Climate Tracer for Italy



From a sectoral perspective, confidence firmed in construction and industry, while it stayed broadly unchanged in services, retail trade and among consumers. The level of confidence

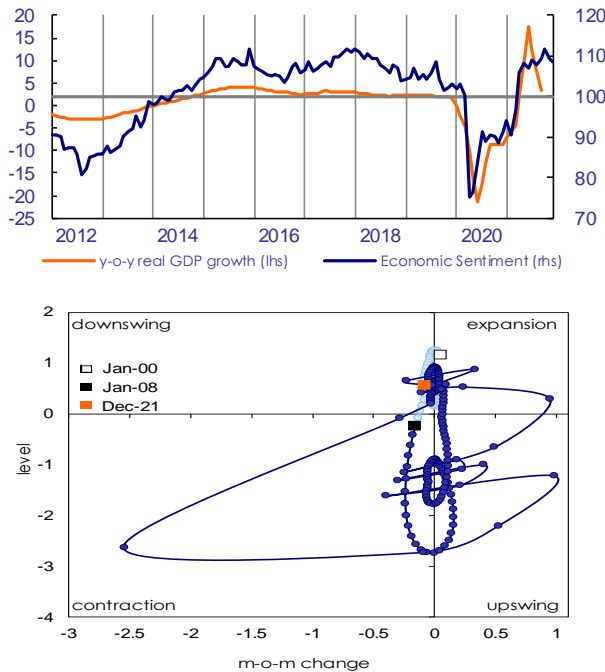
outstrips historic averages in all surveyed parts of the economy (see Graph 1.2.6).

Graph 1.2.6: Radar Chart for Italy



After five quarterly increases in a row, the **Spanish ESI** deteriorated mildly (-0.9 points) in the fourth quarter of 2021. At 108.5 points, the indicator nevertheless continues outstripping its long-term average and pre-pandemic level by a comfortable margin (see Graph 1.2.7).

Graph 1.2.7: Economic Sentiment Indicator and Climate Tracer for Spain

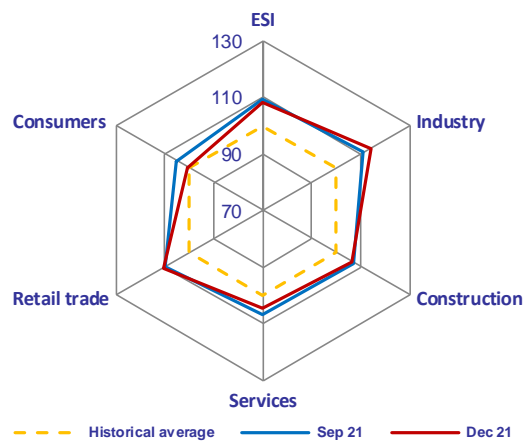


The Spanish EEI saw a more marked decrease (-3.4 points in December compared to September), due to a sharp downward revision

of employment plans in construction and, to a lesser extent, in services. Employment plans in industry stayed broadly unchanged, while they were moderately up among retail trade managers.

As shown in the radar chart (see Graph 1.2.8), confidence firmed in industry, while clouding over in services and among consumers. Sentiment in retail trade and construction remained comparatively inert. The level of confidence is generally well above or, in the case of consumers, slightly above long-term averages.

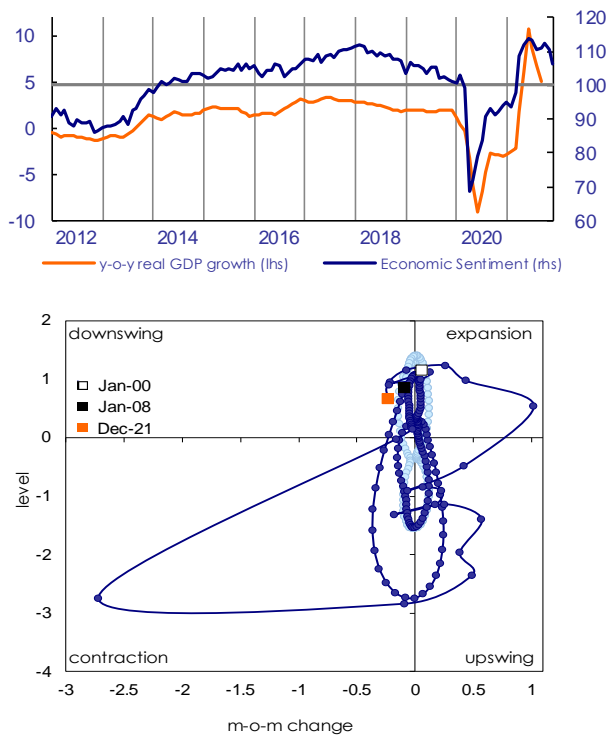
Graph 1.2.8: Radar Chart for Spain



The ESI for the **Netherlands** deteriorated for the second quarter in a row, shedding 4.8 points compared to September. At 106.2 points, the indicator remains well in excess of its long-term average.

The slowdown also showed in the Dutch climate tracer which moved from the expansion into the downswing quadrant (see Graph 1.2.9).

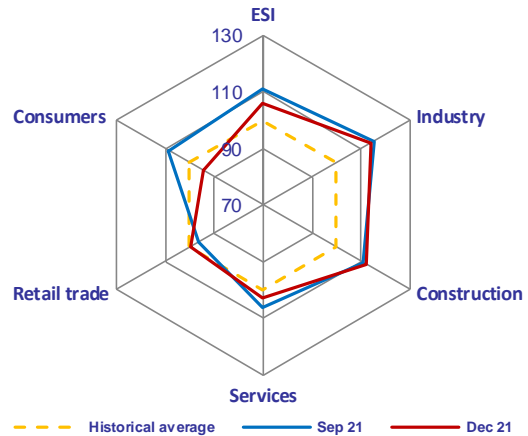
Graph 1.2.9: Economic Sentiment Indicator and Climate Tracer for the Netherlands



After marking a new all-time high in October, the Dutch EEI declined in November and December, the result being a 2.6 point decrease compared to September, which put an end to the indicator's uninterrupted rally since November 2020. The decline was entirely due to collapsing employment plans in retail trade, which were only partially offset by more optimistic plans in industry (reaching their highest level on record in December), services and construction.

As shown in the radar chart (see Graph 1.2.10), consumer confidence evaporated, while industry and services confidence took a comparatively smaller hit. Retail trade and, to a lesser extent, construction confidence booked some increases. The level of confidence is much above long-term averages in industry and construction, while less comfortably so in services. The level of retail confidence corresponds to its historic average, while the landslide of consumer confidence in the fourth quarter pushed the indicator below its long-term average.

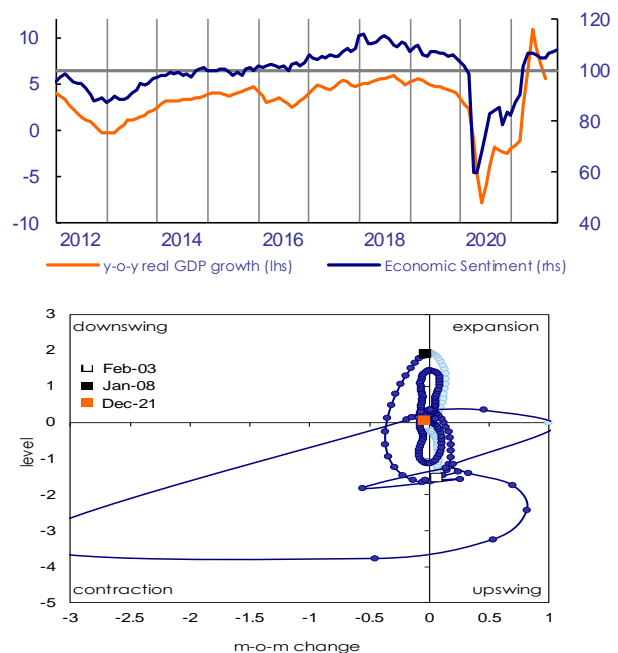
Graph 1.2.10: Radar Chart for the Netherlands



Sentiment in **Poland** edged up, finishing the fourth quarter of 2021 2.6 points higher than the preceding one. At 107.7 points, the indicator remains significantly above its long-term average.

The Polish climate tracer stayed practically unchanged on the intersection of the downswing and the contraction quadrant (see Graph 1.2.11).

Graph 1.2.11: Economic Sentiment Indicator and Climate Tracer for Poland

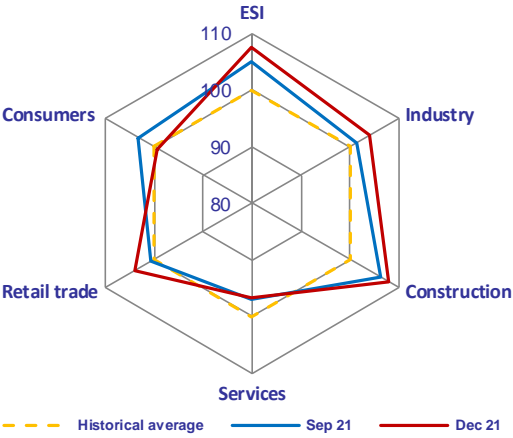


The Polish EEI completed the second quarter of practically unchanged readings, gaining a mere 0.4 points between September and December. While construction and services managers revised their employment plans upwards, the

opposite held true for industry managers. Employment plans in retail trade remained virtually unchanged over the quarter.

As shown in the radar chart (see Graph 1.2.12), confidence among industry, retail trade and construction managers firmed, while it stayed stable in services and took a hit among consumers. The level of confidence outstrips historic averages in all surveyed business sectors except for services, while consumer confidence is roughly at its long-term average.

Graph 1.2.12: Radar Chart for Poland



2. RESULTS OF THE OCTOBER/NOVEMBER 2021 SURVEY ON INVESTMENT IN THE MANUFACTURING AND SERVICES SECTORS

Investment plays a key role in driving economic developments, both in the short term and in the long term. In the current context, a number of specific factors can affect investment decisions by firms. The acceleration of digitalisation triggered by the pandemic and new environmental requirements should spur investment activity, also benefitting from support from the Recovery and Resilience Facility. At the same time, firms' weaker financial positions left by the crisis and a possible increase in corporate insolvencies may be acting as a drag. Shortages of raw materials and input goods could also hinder investment.

Against the background of these considerations, this section analyses the results of the European Commission's Investment Survey conducted in October-November 2021, reporting assessments by managers in manufacturing and services of their investment in 2021 and plans for 2022.

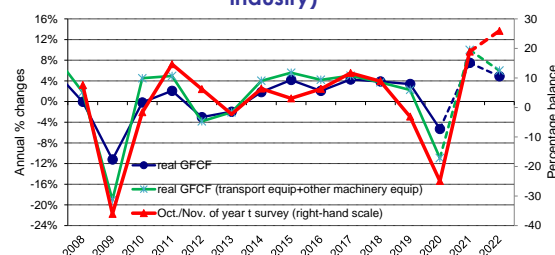
Set-up of the bi-annual investment survey

Twice a year – in spring and autumn – the Commission's business survey for the manufacturing sector includes specific questions on investment. Since October/November 2021, these questions have been included also in the services sector. In spring, managers are asked about investment realised in the previous year (t-1) and planned in the current year (t). In autumn, they are asked about investment realised/planned in current year (t) as well as plans for the following year (t+1). Moreover, the autumn survey enquires about the purpose of investment (replacement, extension of production capacity, process streamlining, other) as well as the factors driving it (demand, profitability, technical factors, others). The formulation of (most of) the questions has changed in autumn 2021, and the time series have been adjusted backwards accordingly (see Box 1).

Investment in 2021 and plans for 2022

Graph 2.1 provides an overview of managers' investment assessments for the current year (year t), based on the autumn surveys. For any year t, the business surveys enquire about managers' assessment of the evolution of their investment in four successive vintages: a first assessment, by way of expectations, is provided in October/November of the year t-1; a second evaluation is given in March/April of year t; a third appraisal comes in October/November of the same year; and a final assessment is obtained in March/April of the year t+1. The graph shows that the third vintages of assessments, from the autumn surveys, co-move quite well with the actual investment outcomes as measured by the Gross Fixed Capital Formation (GFCF). With the exception of 2015, they have anticipated reasonably well the investment outturns ever since 2008.

Graph 2.1: Investment growth in the EU (excl. IE) (y-o-y changes in % and survey balances in industry)



The dotted lines for total and transport equipment + other machinery equipment GFCF are the DG ECFIN Autumn forecasts. The last point of the survey data reflects managers' investment expectations for 2022.

Source: Commission services

Industry managers' assessment of their investment in 2021 was, on balance, for a significant (above long-term average) increase over the previous year. Looking forward, in 2022 managers were expecting further expansion of their investment relative to 2021 (see Graph 2.1 red line), indicating scope for an increase in investment in 2022 beyond

what is projected in the Commission autumn forecast.

In services (not included in the Graph 2.1), managers estimated investment to have increased in 2021 compared to 2020, but foresaw a broadly unchanged situation for 2022.

Box: Changes to the investment survey introduced in autumn 2021

In autumn 2021, three important changes have been introduced in the business surveys with respect to investment:

- i) the questions (that used to be asked in industry) have been simplified. They are now asked in qualitative terms – e.g. do you expect your investment to decrease/remains unchanged/ increase - rather than in quantitative terms – e.g. state the estimated or planned % change in investment.
- ii) similar questions on investment have been introduced in the services survey.
- iii) the questions have been integrated into the regular surveys. In industry, they used to be carried out separately from the main industry survey, which implied that in some countries, samples were different. This change implies that from now on the results are available at sub-sector level as in the rest of the industry survey, while in the former investment survey only the Main Industrial Groupings (MIGs) were available.

Investment will continue to be surveyed twice a year, in March/April and October/November. In the **October/November Industry** and **Services** surveys, managers are asked if their investment will increase/remains unchanged/decrease in the current year (t) compared to the previous (t-1) and following year (t+1), compared to year (t).

Managers are also asked about the **purpose of their investment** in the current year and planned investment for the following year. The possible answers are:

Industry survey	Services survey
Replacement of worn-out plant or equipment	Replacement of worn-out buildings, equipment and IT
Extension of production capacity	Extension of capacity for existing or new products/services
Investment designed to streamline production	Investment designed to streamline processes
Other investment objectives (pollution control, safety, etc.)	Other investment objectives (regulatory obligations, safety, etc.)

Finally, managers are asked which **main factors** (i.e., demand/financial conditions/technical factors/other factors) **stimulate their investment** (in the current year and the next). Also in this case, the reply options for managers have been simplified in autumn 2021: rather than asking managers to assess the extent to which each of the listed factors played a role in stimulating (or limiting) their investment, they can now just indicate the main stimulating factors.

In the **March/April Industry** and **Services** surveys, managers are asked if their investment has/will increase(d)/remain(ed) unchanged/decrease(d) over the previous year (t-1) compared to year (t-2) and over the current year (t) compared to year (t-1). These two questions are asked for ‘Overall investment’, but also for investment in ‘Machinery and equipment’, ‘Land, building and infrastructure’ and ‘Intangibles’ (R&D, software, data, intellectual property, vocational training, etc.)

The results regarding investment plans are now expressed as **balances**, calculated as the difference between the percentage of managers stating that their investment has or will increase(d), and those stating it has or will decrease(d), taking into account the size of the companies.

The change of the questions’ formulation highlighted above implied breaks in the series. To overcome such breaks, the BCS partner institutes backcasted (as far back as 2008 at least) the survey results

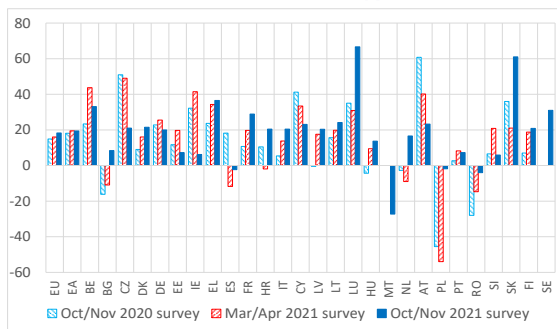
based on the results of the ‘old’ investment survey.¹ In practice, the percentage growth rates for investment reported until spring 2021 have been classified as “increase” if above zero, “decrease” if below zero and “unchanged” if at zero. Similarly, the factors driving investment that were reported to be “very stimulating” or “stimulating” for investment are now classified as the main stimulating factors.

The backcast was performed only down to the level of the breakdown deployed in the former (quantitative) investment survey, i.e. Main Industrial Grouping (MIGs: manufacture of motor vehicles, trailers and semi-trailers (sector 29); durable consumer goods (CDUR); non-durable consumer goods (CNDU); food and beverages industry (FOBE); consumer goods (CDUR+CNDU); intermediate goods (excluding mining and quarrying); and investment goods (includes 29)).

¹ No backcast data is available for Sweden, as the former investment survey was carried out by a different partner institute. Backcast data for Malta are not available so far.

With respect to investment in 2021, managers in industry were more optimistic in the recent October/November 2021 survey compared to what they first expected a year before (i.e., October/November 2020 survey) (see Graph 2.2). An upward revision in expectations was already reported in the March/April 2021 investment survey, when the availability of vaccines brought forward the perspective of a gradual normalisation of economic activity. Despite a resurgence of infections, the October/November 2021 survey saw a further improvement in managers’ assessments.

Graph 2.2: Surveyed investment changes in 2021 in the three successive survey vintages (percentage balances in industry)



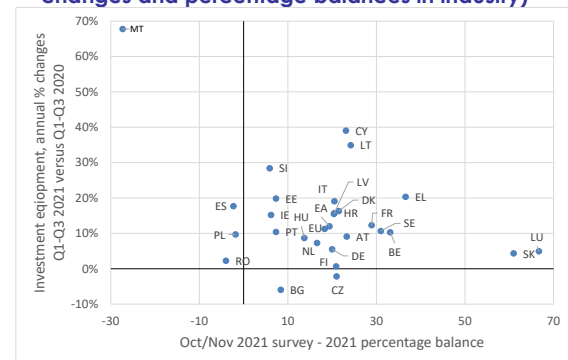
Note: no backcasted data are available for MT and SE (see box).

Source: Commission services

In almost all EU Member States (except for PL, RO, ES, and MT), the percentage of managers reporting to have increased their investment in 2021 is (significantly) higher than the percentage of those reporting a decrease. This is broadly consistent with the growth in equipment and investment confirmed by quarterly national accounts in the first three quarters of the year. The scatter plot in Graph 2.3 shows the latest survey

results for the year 2021 and the actual outcomes of the first three quarters of 2021 compared with the same period of 2020. Except for 5 Member States (MT, ES, PL, RO, BG and CZ), all the countries are in the upper right quadrant of the plot. Thus, assessments of higher investment in 2021 than in 2020 according to the survey coincide with increases of equipment investment during the first three quarters of 2021 compared with the same period in 2020.

Graph 2.3: EU, investment in equipment* and Oct/Nov survey results for the year 2021 (y-o-y % changes and percentage balances in industry)

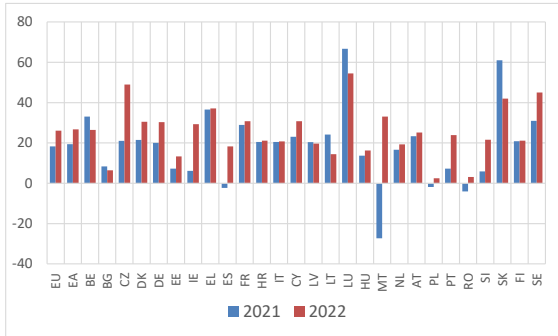


*based on the outturns of the first three quarters of 2021 compared with the same period of 2020. BE and IE data shown are the Autumn Forecast projections for 2021 as no quarterly data are available.

Source: Commission services

Concerning the year 2022, in all EU Member States the percentage of industry managers expecting to increase their investment in 2022 compared to 2021 is higher than the percentage of those foreseeing a decrease (see Graph 2.4).

Graph 2.4: Oct/Nov 2021 survey – managers' investment expectations for the years 2021 and 2022 (percentage balances in Industry)

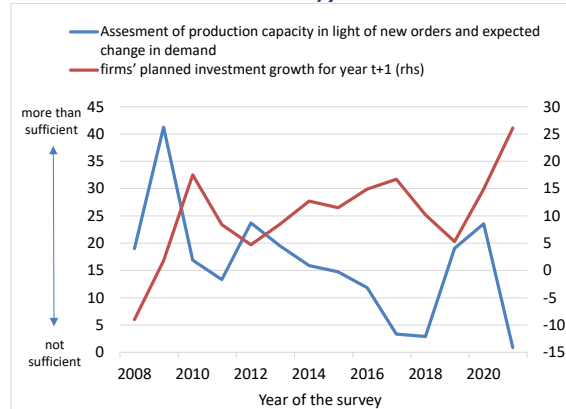


Source: Commission services

Managers' optimism about investment in 2022 could be due to the fact that, at the time of the survey, risks related to a resurgence of the pandemic still appeared rather low. It could also be due to the assessment of insufficient capacity utilisation.

Graph 2.5 compares managers' investment forecasts for the year t+1 with assessments of their production capacity in the light of current order books and expected change in demand over the coming months. The red line represents firms' planned investment growth for year t+1 (percentage balance), as surveyed in Oct/Nov of year t. The last point reported in the graph is thus the investment growth planned for 2022, as reported by firms at the end of 2021. The blue line captures how firms, in October of year t, assessed their production capacity in the light of current order books and the expected change in demand over the coming months.² The higher the value of this variable, the higher the share of firms that consider their production capacity as "more than sufficient".

Graph 2.5: Expected EU investment for the year t+1 & assessment of production capacity, both surveyed in Oct/Nov of year t (percentage balance in industry)

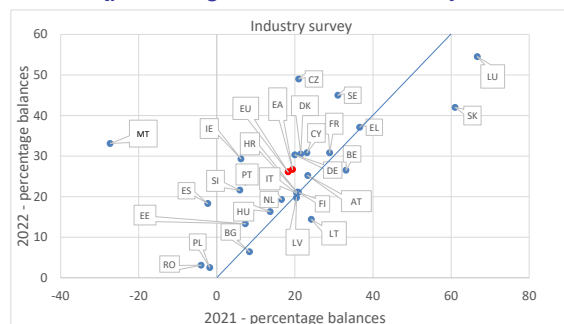


Source: Commission services

Generally, there is a negative correlation between the two series: the more excess production capacity firms deem to have (relative to orders and expected demand), the less they plan to invest. The results for the two time series reported in 2020 were rather atypical, suggesting that firms' investment plans for 2021 were subject to a high degree of uncertainty. In the latest survey (Oct/Nov 2021), the two series moved again in opposite directions.

Also managers in the services sector, in all EU Member States except PL, expect to further increase their investment in 2022 compared to 2021 (see Graph 2.6). However, when weighted by the real gross value added in services, the EU/EA aggregate indicates a broadly unchanged result for 2022 compared to 2021.

Graph 2.6: Oct/Nov survey – managers' investment expectations for the years 2021 and 2022 (percentage balances in services)



Source: Commission services

² The question (Q9), which is asked in the first month of each quarter, reads: "Considering your current order books and the expected change in demand over the coming months, how do you assess your current production capacity? The current production capacity is...+ more than sufficient/= sufficient/- not sufficient"

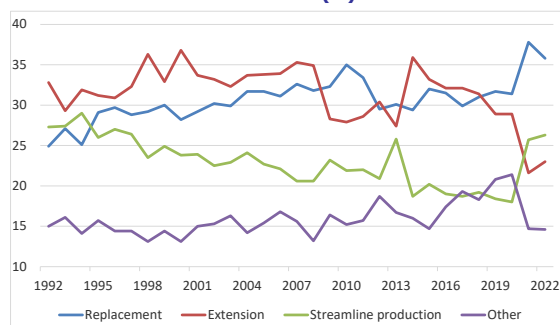
Investment structure

In the autumn survey, firms are also asked to assign their investments to four categories: replacement of worn-out plant or equipment, extension of production capacity, investment designed to streamline processes, and other investment objectives (pollution control, safety, etc.).

In times of economic upswings, one would expect investments to be more geared towards the extension of production capacity than during downturns, when they are likely focused on replacement of worn-out equipment and/or the streamlining of processes.

Despite the strong economic recovery started in spring 2021, the share of investment that was reported in the latest survey to extend production capacity decreased by more than seven percentage points in 2021 compared with 2020, reaching a historical low. Investments in 2021 thus mainly served the purpose to streamline processes or replace worn-out plants or equipment (see Graph 2.7), with the share of the latter category reaching an all-time high. In 2022, managers expect a slight normalisation of these extreme trends. The higher share of investments dedicated to streamline processes could indicate ongoing technological changes in investment, including towards new green and digital technologies. Indeed, the crisis caused by the coronavirus pandemic has accelerated the digitisation process and the current recovery is probably the right time for the innovative retooling needed to thrive in the new, more digital world. Companies can also seize the opportunity – and are indeed often encouraged through specific policies - to replace outdated equipment with greener technologies.

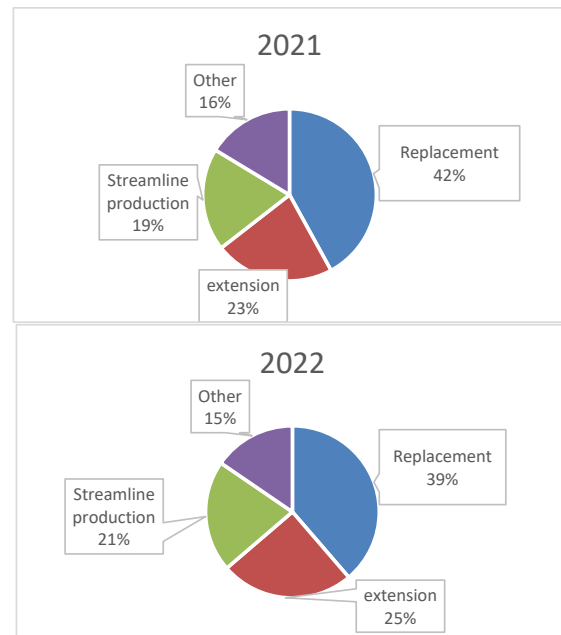
Graph 2.7: EU – Industry survey - Structure of investment (%)



Source: Commission services

Also in services, in 2021, investment reportedly served mainly replacement purposes. In 2022, compared to 2021, a slightly higher share will be made for extensions and rationalisation ends, but replacement will remain the principal investment objective (see Graph 2.8)

Graph 2.8: EU – Services survey - Structure of investment (%)



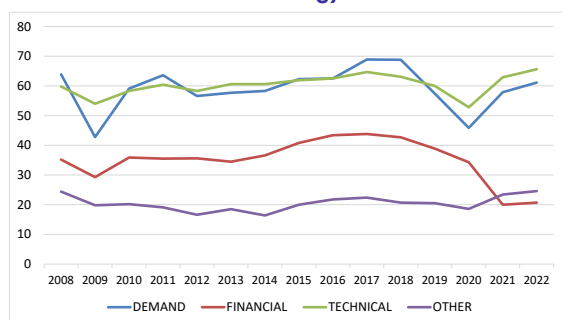
Source: Commission services

Drivers of investment

The autumn Investment Survey also collects information on the factors stimulating investment, namely: demand, financial resources, technical and other factors.

In the 2021 autumn survey, a higher percentage of industry managers than in the same survey in 2020 reported demand and technical factors as stimulating their investments in 2021 and 2022. This seems plausible in the light of the return of demand after COVID, as well as new investment needs related to the green and digital transition. By contrast, a lower percentage of firms reported financial conditions as a stimulating factor (see Graph 2.9).

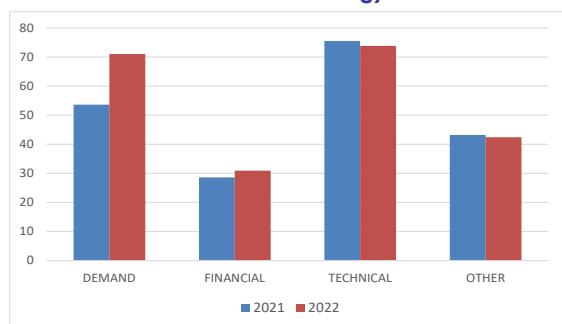
Graph 2.9: EU – Industry survey – factors stimulating investment (% of firms stating that one factor is stimulating)



Source: Commission services

In services, more than 70% of managers stated technical factors as stimulating investment in both 2021 and 2022. Demand is considered to stimulate investment for more than 50% of the managers in 2021. For 2022, this figure rises to around 70%, indicative of the expectation of a strong return of demand in 2022. Financial conditions are assessed as motivating investment for just about 30% of managers in 2021 and 2022. Finally, around 40% of managers stated ‘other factors’ as stimulating investment in both 2021 and 2022 (see Graph 2.10).

Graph 2.10: EU – Services survey – factors stimulating investment (% of firms stating that one factor is stimulating)



Source: Commission services

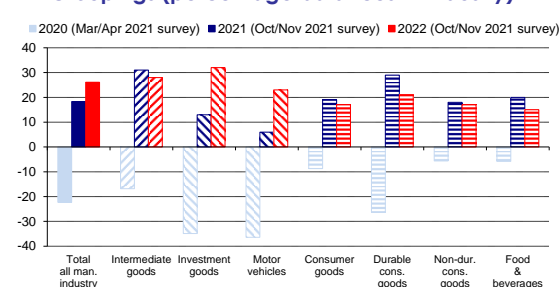
Does investment activity differ across sub-sectors?

To assess whether the overall investment dynamics signalled by the survey are broadly uniform across companies and sectors or mask divergences, we look at the results by main industrial groupings (MIGs) and by services’ sub-sectors at level 1 (alphabetical letters) of NACE Rev2.

As suggested by Graph 2.11, the increase in investment in 2021 and 2022 is broad-based

across main industrial groupings. For 2021, the percentage of managers in the intermediate and consumer goods-producing sectors reporting an increase in their investment is much higher than the share of managers reporting a decrease. For 2022, the balance remains positive but decreases slightly. The difference between increase and decrease answers among producers of investment goods (particularly the Motor vehicle sector) is also positive, but much smaller than in the other MIGs in 2021, before increasing substantially in 2022.

Graph 2.11: EU investment plans by Main Industrial Groupings (percentage balances in industry)



Source: Commission services

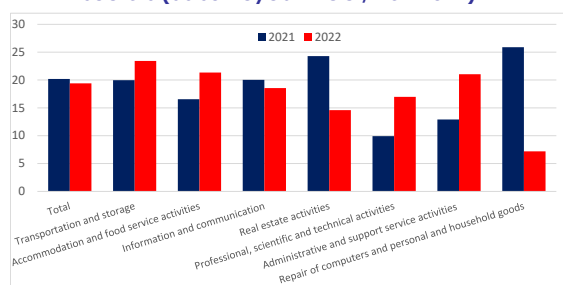
However, it has to be noted that this comes after an extremely negative final assessment of investment in 2020, according to the previous survey conducted in Mar/Apr 2021. In terms of changes from 2020 to 2021, the increase in the balance of the investment goods is comparable to the other MIGs. A final interesting observation emanating from Graph 2.11 is the particularly strong investment growth foreseen by motor vehicles producers in 2022. A possible explanation could be the ongoing, sweeping transformation of the sector from combustion engines to electric vehicles, which requires huge investment that was probably suspended in 2020/2021 due to the pandemic and the supply bottlenecks of raw materials (e.g. metal) and semi-conductors.

Zooming into the consumer goods sector, for 2021, the positive balance in the consumer durable goods MIG is much higher than for the non-durable consumer goods/food and beverages groupings. This different pattern

could be explained considering that during the last year not all the demand for some durable consumer goods, such as furniture to equip home offices³, as well as consumer electronics to facilitate home entertainment (TVs, game consoles, etc.) could be satisfied (or could be satisfied with delay). This could have pushed an important share of enterprises to invest in order to increase the production and/or the productivity.

When looking at the services sub-sectors (see Graph 2.12), an increase in investment (in balance terms) in 2021 and 2022 is broad-based across sub-sectors. For 2022, the balance remains positive but decreases slightly at total level, mainly due to a deceleration of investment plans in ‘real estate activities’⁴ and ‘repair of computers and personal and household goods’.

Graph 2.12: EU investment plans by services sub-sectors (as surveyed in Oct/Nov 2021)



Source: Commission services

Conclusions

This special topic analyses the results of the Investment Survey conducted in October-November 2021, enquiring about business investment in 2021, as well as plans for 2022.

On average, in the EU as a whole, managers in the manufacturing and services sectors reported a significant increase in investment in 2021. For 2022, in industry, an increase of the percentage balance suggests a further growth

in investment, while in services, the balance for 2022 remains broadly unchanged at the 2021 level.

The increase in industry investment in 2021 could be related to managers’ assessment of capacity utilisation in the latest quarterly industry survey carried out in October 2021. Back then, capacity utilisation was deemed as insufficient in the light of order books and the expected change in demand over the following three months.

In industry, investment in both 2021 and 2022 served or will mainly serve the purpose to replace worn-out plants or equipment or streamline production. The share of investment used to extend production capacity is expected to account for just over a fifth of investment, well below the long-term average of nearly one-third. For services, in 2021, investment also served mainly for replacement purposes. In 2022 compared to 2021, the share of investment used to extensions and rationalisation ends will increase slightly, but replacement will remain the principal investment objective.

Turning to the factors stimulating investment, in industry, for both investment in 2021 and 2022, a high percentage of managers stated demand and technical factors as stimulating investments, while only around one fifth of firms perceive financial conditions as driving factors (in both 2021 and 2022). In services, more than 70% of the managers reported technical factors as stimulating investment in both 2021 and 2022. Demand is considered to stimulate investment for more than half of the managers in 2021. For 2022, this figure rises to around 70%, highlighting the expectation of a strong return of demand in 2022.

From a sectoral perspective, the increase in investment in 2021 and 2022 is broad-based across Main Industrial Groupings (MIGs). For 2021, the percentage of managers in intermediate and consumer goods reporting an increase in their investment is much higher than the share of managers reporting a decrease. For 2022, the balance remains positive but decreases slightly. By contrast, the balance for investment goods (particularly the Motor vehicle sector) is smaller in 2021 but increases substantially in 2022. Also in the

³ It should be noted that computers and computer screens, which are likely to have been purchased a lot during the lockdown, are categorised as investment goods.

⁴ It should be noted that the real estate sub-sector enters with a weight of nearly 32% in the calculation of the total services aggregate.

services sector the increase in investment in 2021 and 2022 is broad-based among sub-sectors. For 2022, the balance remains positive but decreases markedly among

managers in 'real estate activities' and 'repair of computers and personal and household goods'.

3. SPECIAL TOPIC: BUSINESS SENTIMENT ACROSS SUBSECTORS SINCE THE START OF THE COVID CRISIS

The horizontal description in section 1 has established marked differences between sectors in terms of managers' business perceptions and expectations, almost two years after the start of the COVID-19 pandemic. While industry and construction confidence stands at record high levels, despite persisting challenges from supply-chain disruptions and rising input and output prices, managers in services and retail trade have become more cautious again in the face of the recent deterioration of the epidemiological situation and the related reintroduction or tightening of restrictions to activity in most EU Member States. However, these broad sectoral trends hide interesting developments at the lower level of individual branches. Has sentiment in all manufacturing activities fully recovered? And are there services activities that fare better than others? To address such questions, this special topic offers a granular picture of the impact of the pandemic and related recent developments at the sub-sector level.

The harmonised BCS programme comprises four business surveys in manufacturing industry, services, construction and retail trade. Within these sectors, the programme aims to collect information on 66 branches, i.e. divisions from the NACE Rev. 2 classification of economic activities (see Annex for detailed classification). For some branches, data are available only for a few countries.⁵ Since the analysis in this section is conducted for the EU aggregate, it only covers 23 out of the 24 divisions surveyed in industry, 23 out of 37 in

services, and all 3 and 2 divisions in construction and retail trade, respectively. It should be noted that series at the sub-sector level can be based on relatively small samples, especially in smaller countries, and therefore their use and interpretation deserve some caution.

When did sentiment catch up with its pre-crisis level?

In spring 2020, most Member States imposed severe restrictions on business activity to stem the spread of the then unknown COVID-19 virus. Some business sectors were fully shut down (e.g. food service activities, air travel, etc.), while others could operate only at reduced capacity. While managers' business expectations generally plummeted as early as April 2020, their assessment of past business activity,⁶ as measured by the balance of positive over negative replies to the relevant questions, generally reached a minimum in May or June. While the initial hit of the COVID-19 crisis in early 2020 thus took a largely synchronised toll on managers' assessments across most branches, the rebound has been uneven.⁷

Graph 3.1 displays the percentage of branches in industry and services where EU managers' assessment of their production/business situation over the past 3 months, in any given month between March 2020 and December

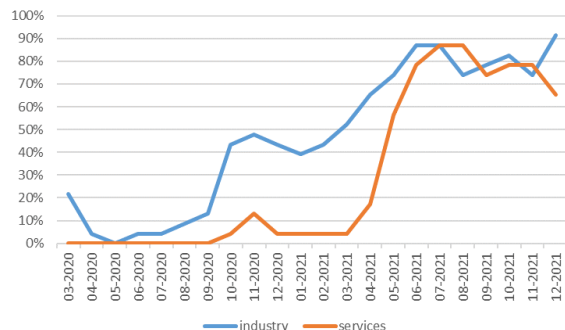
⁵ Missing data is mostly due to small numbers of enterprises active in certain sub-sectors, in extreme cases quasi-monopolistic positions, and the resulting confidentiality of the sub-sector results. Results from small sub-sectors are however included in higher-level aggregates.

⁶ The relevant concept is 'production' in industry, 'building activity' in construction, 'business activity (sales)' in retail trade and 'business situation' in services.

⁷ See the EBCI_2020_Q3 Special topic on the impact of COVID-19 and containment measures on business sentiment.

2021, was at least as high as its pre-crisis level (February 2020).⁸

Graph 3.1. Percentage of branches having reached or surpassed the pre-crisis level of managers' assessment on past production/situation, EU



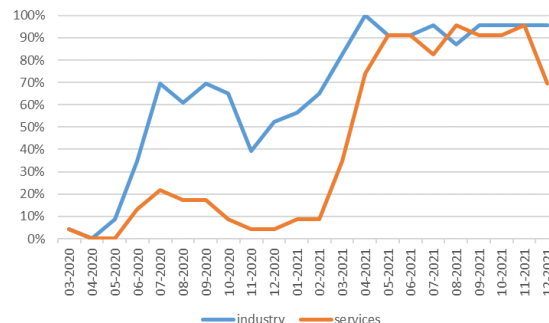
Note: For any given month between March 2020 and December 2021, the graph shows the share of branches reporting balance scores at least as high as the level recorded in February 2020.

In manufacturing, which was less impacted than other sectors by the second and third COVID waves, managers' assessments of their past business situation improved much faster than in the services sector and remained at a rather high level thereafter. In October 2020, the balance of managers' assessments of their past business situation was back to or above its pre-crisis level in around 45% of branches in industry, while in the services sector such a high share was reached only in May 2021. After peaking around July 2021, at almost 90% of branches in industry and services, balances started to drop again below their pre-crisis level, to around 80% in autumn 2021 in both sectors. In December (latest available wave of survey results), the gap between the two sectors opened up again: in around 15% of branches in services, the balance of managers' assessment of the past business situation fell back below its pre-crisis level, while it improved and exceeded its February 2020 level

⁸ The graph is based on the balances (in percentage points) of positive over negative answers to Question Q1 of the industry and services sector surveys, on the evolution of their production and business situation over the past three months. In retail trade and construction, survey results are available for only two and three subsectors. Therefore, the diffusion index approach taken for industry and services is not applicable.

for a similar percentage of branches in industry.

Graph 3.2. Percentage of branches having reached the pre-crisis level of managers' production/activity expectations, EU



Note: see Graph 3.1

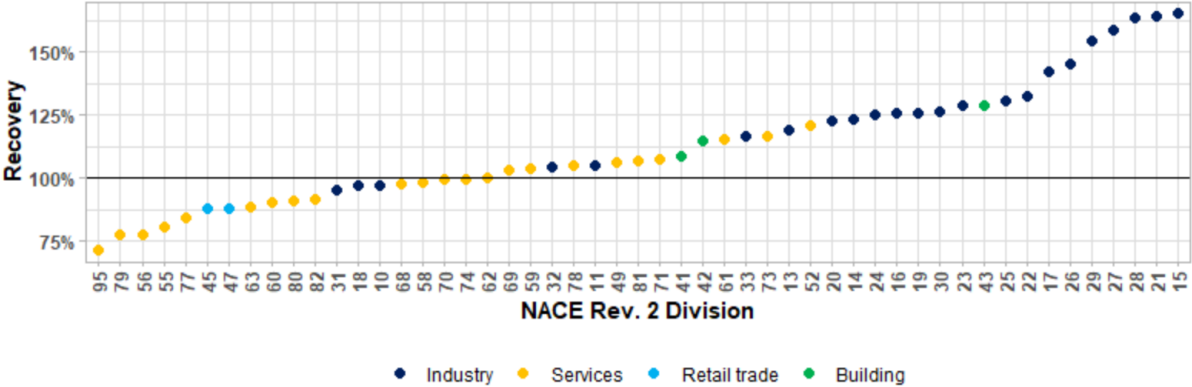
When looking at the forward-looking assessment of the business situation (production/business expectations over the next 3 months),⁹ Graph 3.2 shows that sentiment in the manufacturing branches recovered even earlier. By summer 2020, balances of managers' expectations had recovered or exceeded their pre-pandemic level in over 60% of branches. This share was only reached in April 2021 for branches in the services sector. In a similar manner to balances of backward looking questions, those in services branches dropped again in December 2021, most likely due to the resurgence of the pandemic in Europe and the re-introduction of virus containment measures.

Improved sentiment highlights the ongoing expansion

By December 2021, managers' expectations about their production/business situation over the next three months had fully recovered or exceeded their pre-crisis level in most branches, particularly in industry.

⁹ Question 5 in industry survey "How do you expect your production to develop over the next 3 months? It will increase, remain unchanged, decrease" and question 3 in services "How do you expect the demand (turnover) for your company's services to change over the next 3 months? It will increase, remain unchanged, decrease".

Graph 3.3. Recovery of production/business expectations for the following three months, December 2021 vs February 2020 for the EU (in % of the maximum loss recorded after the COVID shock)



To gauge the extent of the recovery in individual branches, Graph 3.3 presents the share of the maximum losses¹⁰ recorded since February 2020 that has been recovered by the end of December 2021. A value below 100% means that production/business expectations in December 2021 are below their February 2020 level in a given branch. By contrast, a value above 100% means that expectations in the branch are now above their pre-crisis level. The lowest rates (on the left hand side) are mostly seen in service activities (and retail trade) while the highest ones (on the right hand side) are mostly seen in manufacturing branches. Construction takes an intermediate position.

The gap between service/retail trade activities and manufacturing is marked. By December 2021, sentiment in most subsectors of industry had fully recovered or was even well beyond the pre-crisis level, while service/retail trade activities barely reached it. This likely reflects the impact of the resurgence of infection rates and the related renewed restrictions, which focus on contact-intensive service activities.

In particular, expectations in the three main contact-intensive services¹¹ (Accommodation (55), Food service activities (56) and Travel agency, tour operator and other reservation services (79)) remain below the level recorded before the crisis.¹² By contrast, the services branches that appear to have recovered well in excess of previous sentiment losses tend to be business services (i.e. ‘Logistics’ services (52)¹³, Advertising and market research (73) and Telecommunication activities (61).

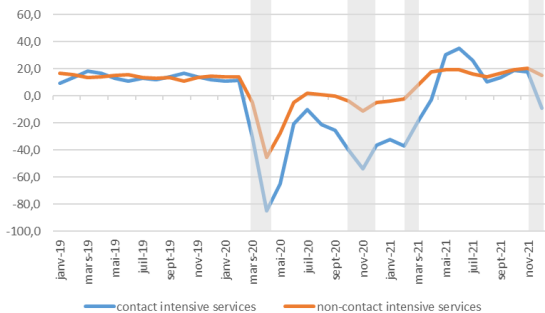
Graph 3.4 takes a closer look at expectations in the above-mentioned contact-intensive services versus all other services. During the first wave of the pandemic, expectations of managers from

¹⁰ The maximum losses (i.e. the local minima of the balances of expectations) were generally recorded as early as April 2020. The maximum loss measures the difference (in balance points) between the pre-crisis level in February 2020 and the local minima after the COVID shock.

¹¹ Services with non-teleworkable occupations, reliant on in-person teamwork or face-to-face customer interaction.
¹² Somewhat surprisingly, division 95 ‘Repair of computers and personal and household goods’ stands out with the lowest recovery rate. After a strong rebound in early summer 2020, expectations of branch managers dropped below their pre-crisis until the end of 2020 again, and have moved broadly sideways since then. Arguably, this reflects the fact that after the run on and large-scale replacement of goods such as computers, screens, television sets and household appliances in the initial recovery phase, business prospects for the repair of such durable consumption goods remain presently subdued.
¹³ Warehousing and support activities for transportation.

contact-intensive services plummeted below those in other services sectors, and also suffered more marked dips during the following two waves. Following a steep rebound in spring and early summer 2021, expectations of managers from contact-intensive services took another hit in the latest wave emerging in November 2021.

Graph 3.4. Assessment of expected business situation in contact-intensive vs. non-contact-intensive services, EU¹⁴



Note: contact intensive services are a value-added weighted average of divisions 55 (Accommodation), 56 (Food and beverage service activities) and 79 (Travel agency, tour operator reservation service and related activities)

Within manufacturing, only a few branches have barely recovered from the pandemic, notably the Manufacture of furniture (31). While business expectations of furniture manufacturers had recovered to well above their pre-pandemic level by spring/early summer 2021, it was presumably the emergence of supply-side and transportation bottlenecks¹⁵ that made managers correct their business expectations downwards again since the start of the summer.

By contrast, unsurprisingly the Manufacture of pharmaceutical products and pharmaceutical preparations (21) is among the branches where the balance of managers expecting their production to increase has recovered to far above pre-pandemic levels, as demand to this sector has

noticeably increased over the period and is likely to remain high for the foreseeable future.

Conclusion

This special topic offers a granular picture of the impact of the pandemic and related recent developments at subsector level.

Overall, most surveyed branches have almost fully, fully or even more than fully recovered from the steepest decline at the outset of the crisis. However, there is a marked gap between services/retail trade activities on the one hand and manufacturing on the other.

In particular, contact-intensive services, most affected by the initial restrictions, are also the sectors most affected by the two subsequent COVID waves and the recent re-emergence of restrictions - though the impact so far is much more contained than during the first wave.

By contrast, with very few exceptions, industry stands out as the sector where managers' business sentiment across branches has fully recovered from the first COVID wave, having remained largely unaffected during the subsequent waves.

¹⁴ Waves of infection are indicated in grey.

¹⁵ The exceptionally strong rebound in global demand in the second half of 2020 met a weakened supply due to restrictions put in place to contain the spread of the pandemic. Several key industries were affected including the production of raw materials. The combination of soaring demand and supply disruptions lifted commodity prices such as metals, wood and natural gas to record or near-record high levels (see European Economic Forecast. Autumn 2021).

ANNEX TO SECTION 3

Classification of sectors (NACE Rev. 2)

Industry		weight ¹⁶ in 2019
10	Manufacture of food products	9,3%
11	Manufacture of beverages	2,0%
12	Manufacture of tobacco products	0,8%
13	Manufacture of textiles	1,2%
14	Manufacture of wearing apparel	1,1%
15	Manufacture of leather and related products	0,9%
16	Manufacture of wood and of products of wood and cork, except furniture	1,8%
17	Manufacture of paper and paper products	2,3%
18	Printing and reproduction of recorded media	1,3%
19	Manufacture of coke and refined petroleum products	1,9%
20	Manufacture of chemicals and chemical products	7,4%
21	Manufacture of basic pharmaceutical products and pharmaceutical preparations	5,1%
22	Manufacture of rubber and plastic products	4,6%
23	Manufacture of other non-metallic mineral products	3,3%
24	Manufacture of basic metals	3,3%
25	Manufacture of fabricated metal products, except machinery and equipment	8,8%
26	Manufacture of computer, electronic and optical products	5,2%
27	Manufacture of electrical equipment	4,6%
28	Manufacture of machinery and equipment n.e.c.	12,1%
29	Manufacture of motor vehicles, trailers and semi-trailers	11,6%
30	Manufacture of other transport equipment	2,9%
31	Manufacture of furniture	1,8%
32	Other manufacturing	2,4%
33	Repair and installation of machinery and equipment	4,2%
Services		weight in 2019
49	Land transport and transport via pipelines	5,4%
50	Water transport	0,5%
51	Air transport	0,7%
52	Warehousing and support activities for transportation	4,2%
53	Postal and courier activities	0,9%
55	Accommodation	2,6%

56	Food and beverage service activities	4,3%
58	Publishing activities	1,5%
59	Motion picture, video and television programme production, sound recording and music publishing activities	0,6%
60	Programming and broadcasting activities	0,6%
61	Telecommunications	2,6%
62	Computer programming, consultancy and related activities	5,7%
63	Information service activities	0,9%
64	Financial service activities, except insurance and pension funding	6,8%
65	Insurance, reinsurance and pension funding, except compulsory social security	1,9%
66	Activities auxiliary to financial services and insurance activities	1,7%
68	Real estate activities	25,4%
69	Legal and accounting activities	4,4%
70	Activities of head offices; management consultancy activities	3,6%
71	Architectural and engineering activities; technical testing and analysis	3,3%
72	Scientific research and development	2,2%
73	Advertising and market research	1,0%
74	Other professional, scientific and technical activities	1,0%
75	Veterinary activities	0,2%
77	Rental and leasing activities	2,9%
78	Employment activities	2,8%
79	Travel agency, tour operator reservation service and related activities	0,5%
80	Security and investigation activities	0,7%
81	Services to buildings and landscape activities	2,2%
82	Office administrative, office support and other business support activities	1,8%
90	Creative, arts and entertainment activities	0,8%
91	Libraries, archives, museums and other cultural activities	0,5%
92	Gambling and betting activities	0,5%
93	Sports activities and amusement and recreation activities	1,4%
94	Activities of membership organisations	1,6%
95	Repair of computers and personal and household goods	0,3%
96	Other personal service activities	2,0%
Retail trade		weight in 2019
45	Wholesale and retail trade and repair of motor vehicles and motorcycles	25,9%
47	Retail trade, except of motor vehicles and motorcycles	74,1%
Construction		weight in 2019
41	Construction of buildings	27,3%
42	Civil engineering	14,5%
43	Specialised construction activities	58,2%

¹⁶ Sources: For industry, services and construction, FIGARO table and Commission calculation based on Value added (at factor cost) available in the Eurostat Economic Indicator for Structural Business Statistics (SBS). For retail trade, gross value added from Eurostat National Accounts.

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 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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