European Commission

ISSN 2443-8049 (online)

European Business Cycle Indicators

Results of the October/November 2022 survey on investment in the manufacturing & services sectors

4th Quarter 2022

TECHNICAL PAPER 061 | JANUARY 2023

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.

This paper exists in English only and can be downloaded from
https://ec.europa.eu/info/publications/economic-and-financial-affairs-publications_en.

Luxembourg: Publications Office of the European Union, 2023

PDF ISBN 978-92-76-61676-4 ISSN 2443-8049 doi:10.2765/308009 KC-BF-23-001-EN-N

European Commission
Directorate-General for Economic and Financial Affairs

European Business Cycle Indicators

4th Quarter 2022

Special topic

- Results of the October/November 2022 survey on investment in the manufacturing and services sectors

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

Contact: Christian.Gayer@ec.europa.eu.

EUROPEAN ECONOMY Technical Paper 061

CONTENTS

OVERVIEW

Recent developments in survey indicators

- The EU and euro-area **Economic Sentiment Indicators (ESI)** recovered somewhat over the 4th quarter of 2022, gaining 1.3 (EU) and 1.9 (EA) points compared to September. At 94.2 and 95.8 points in December, the indicators are still well below long-term average.
- The **Employment Expectations Indicator (EEI)** remained broadly stable, well above its long-term average. The indicator finished the fourth quarter 0.6 points lower (EU) / 0.5 points higher (EA) than in September 2022.
- **Confidence** recovered markedly among consumers and in retail trade. It improved slightly in services and construction, while declining somewhat in industry.
- **Sentiment improved in five out of the six largest EU economies** over the quarter. Except for France (-2.9), the indicator increased in Italy (+4.2), the Netherlands (+2.6), Germany (+2.2), Poland (+1.8) and Spain (+1.7). The level of sentiment remains below long-term average in all the largest EU economies, except for Italy.
- The EU **Economic Uncertainty Indicator (EUI)** was 1.6 (EU) / 1.9 (EA) points lower in December than in September. Uncertainty reduced over the quarter in industry and retail trade, while remaining broadly unchanged in services, construction and among consumers.
- In October, **capacity utilisation** in manufacturing decreased compared to July. At around 81¼%, utilisation remained above long-term average in both regions. Capacity utilisation in services decreased slightly to below 91%, also remaining above average in both regions.
- The share of EU industry managers pointing to a **shortage of material and/or equipment** as a factor limiting production decreased further by 4.3 percentage points to 40.0% from July to October. Also the percentage of industry managers pointing to **labour shortages** as a limiting factor eased in October to 25.9%. However, both percentages are still at very high levels.
- Consumers' quantitative **price perceptions** over the past 12 months rose further, reaching record highs, while **price expectations** for the next 12 months eased slightly, for the first time since the beginning of 2021.

Special topic: Results of the October/November 2022 survey on investment in the manufacturing and services sectors

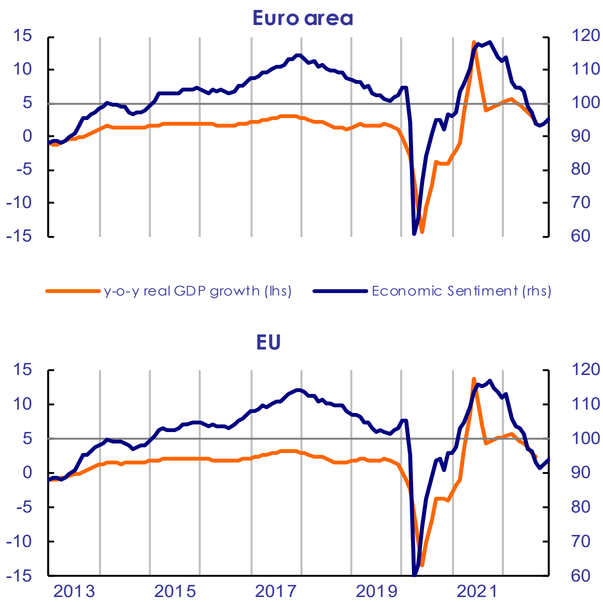
The special topic analyses the results of the specific questions on investment included in the October-November surveys for the manufacturing and services sectors, enquiring about business investment in 2022, as well as plans for 2023. On average, in the EU, managers in the manufacturing and services sectors assessed their firms' investment for both 2022 and 2023 as increasing. However, the difference between the percentage of managers expecting an increase and those expecting a decrease is lower in 2022 than in 2021 and is foreseen to reduce further in 2023. The survey also provides information on the factors driving investment (demand, financial resources, technical, other) and asks firms to assign their investments to four categories (replacement, extension, streamline, other).

1. RECENT DEVELOPMENTS IN SURVEY INDICATORS

1.1. EU and euro area

Over the 4th quarter of 2022, the EU and euro-area **Economic Sentiment Indicator (ESI)** picked up, interrupting the downward trend that had started at the end of 2021 and intensified in March 2022 after the Russian invasion of Ukraine[1], (see Graph 1.1.1).

Graph 1.1.1: Economic Sentiment Indicator

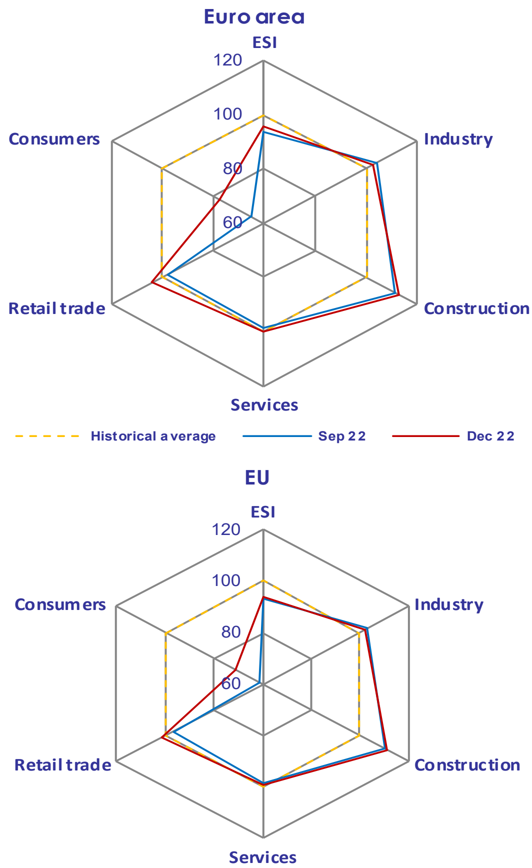


Note: The horizontal line (rhs) marks the long-term average of the survey indicators. Confidence indicators are expressed in balances of opinion and hard data in y-o-y changes. If necessary, monthly frequency is obtained by linear interpolation of quarterly data.

The turn-around came after a further decline in October, after which the ESI increased in November and December, finishing the fourth quarter 1.3 (EU) and 1.9 (EA) points above its level of September 2022. The indicator's current reading (94.2 in the EU, 95.8 in the EA) remains, however, well below its long-term average of 100.

From a sectoral perspective (see Graph 1.1.2), EU/EA confidence recovered markedly among consumers and in retail trade over the quarter. It improved marginally in services and construction, while it declined slightly in industry.

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.

Despite the partial rebound, the level of confidence remained far below its long-term average among consumers, while it came to exceed its long-term average in retail trade. Confidence remained close to its long-term

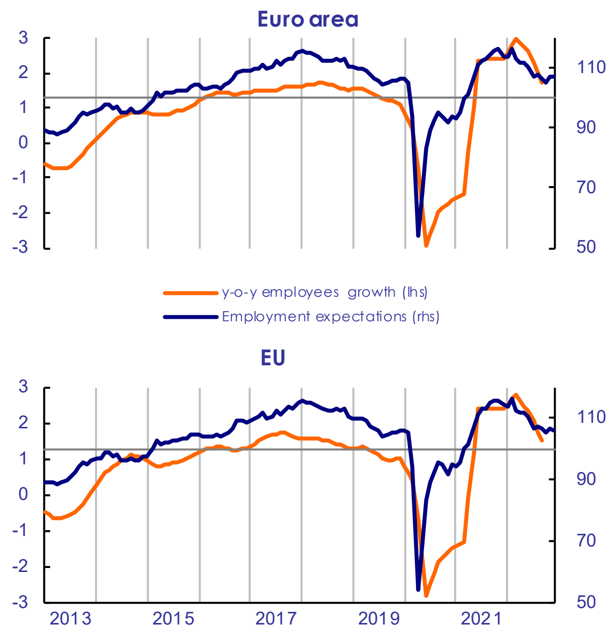
1 The February readings of the indicators were based on surveys conducted until 18 February and, hence, did not reflect the impact of the invasion.

average in services and above it in industry, and, markedly so, construction.

Economic sentiment improved in five out of the six largest EU economies. Except for France (-2.9), the indicator increased in Italy (+4.2), the Netherlands (+2.6), Germany (+2.2), Poland (+1.8) and Spain (+1.7). The level of sentiment remained below long-term average in all the largest EU economies, except for Italy where it climbed marginally above it.

The positive signal emanating from the ESI is in line with the evolution of Standard & Poor's Eurozone Composite PMI, which increased by 1.2 points over the fourth quarter, still below the no-change threshold of 50.0. ESI results are also consistent with the Ifo Business Climate Index (for Germany) which increased by 4.3 points over the quarter.

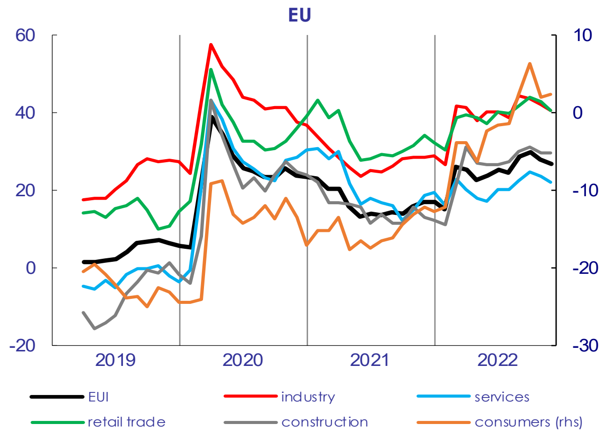
Graph 1.1.3: Employment expectations indicator



The **Employment Expectations Indicator (EEI)** remained broadly stable, remaining well above its long-term average. The indicator finished the fourth quarter 0.6 points lower (EU) / 0.5 points higher (EA) than in September 2022. In both areas, employment expectations increased markedly in construction, while remaining broadly stable in industry and services. Employment expectations in retail trade decreased slightly in the EU, while remaining stable in the EA.

After having increased further in the third quarter, the **EU Economic Uncertainty Indicator (EUI)**[2] peaked in October, and then decreased in November and December. Overall, the indicator is now 1.6 (EU) / 1.9 (EA) points lower than in September (see Graph 1.1.4).

Graph 1.1.4: Uncertainty



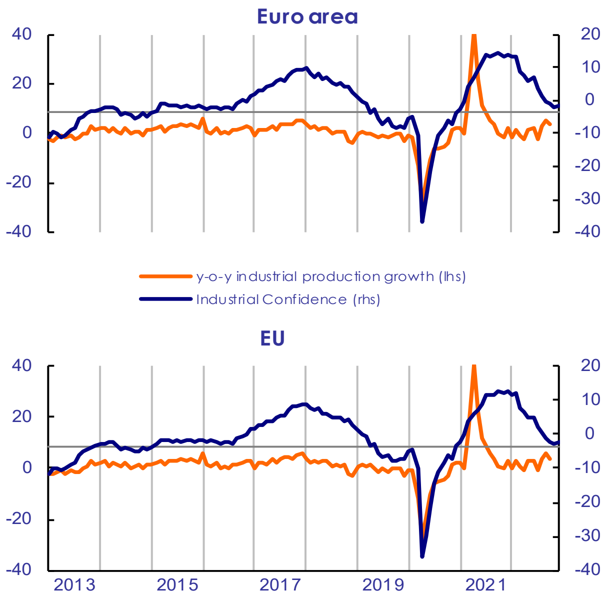
In both the EU and the EA, uncertainty reduced over the quarter in industry, services and retail trade, while remaining broadly unchanged among consumers. In construction, uncertainty remained broadly unchanged in the EU, while it decreased in the EA.

Sector developments

Industry confidence continued to worsen in October and November and picked up slightly only in December. All in all, in December the indicator was 1.1 (EU) and 1.3 (EA) points lower than in September but remained above its long-term average in both areas (see Graph 1.1.5).

2 See the special topic of the 2021-Q3 EBCI for background, and section 3.6 of the BCS User Guide for methodological details.

Graph 1.1.5: Industry Confidence indicator



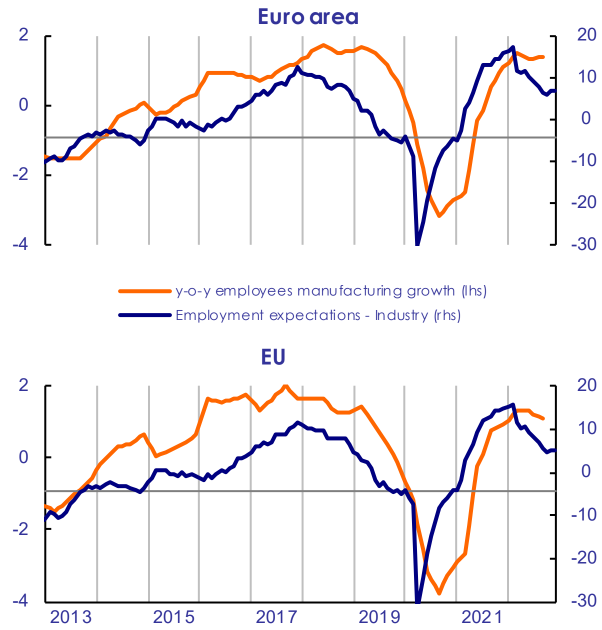
Zooming into the components of industrial confidence, the decline resulted from a sharp deterioration of managers' assessments of their **order books** and **stocks.** The latter were assessed as more abundant, pointing to some further improvement of the prevailing supply constraints but also to weakening sales. On a positive note, managers **production expectations** improved markedly throughout the quarter.

Of the components not included in the confidence indicator, managers' appraisals of **past production** remained broadly stable, while their assessment of **export order books** deteriorated markedly.

Industry managers' **employment expectations** remained broadly stable (-0.2 in the EU and +0.6 in the EA) compared to September (see Graph 1.1.6). Managers' **selling price expectations** continued to subside throughout the quarter, ending the quarter 8.9 (EU) and 10.2 (EA) points lower than in September.

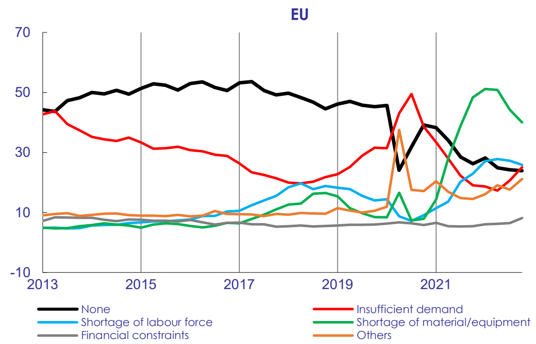
Among the six largest EU economies, industry confidence fell in France (-2.8) and Germany (-1.5), while it remained broadly stable in Italy (+0.2), Spain (+0.4) and the Netherlands (+0.6) and improved in Poland (+2.0). At the end of 2022, the level of industry confidence was above long-term average in Germany, Italy, Spain, and the Netherlands, while in France and particularly in Poland it was well below it.

Graph 1.1.6: Employment expectations in Industry



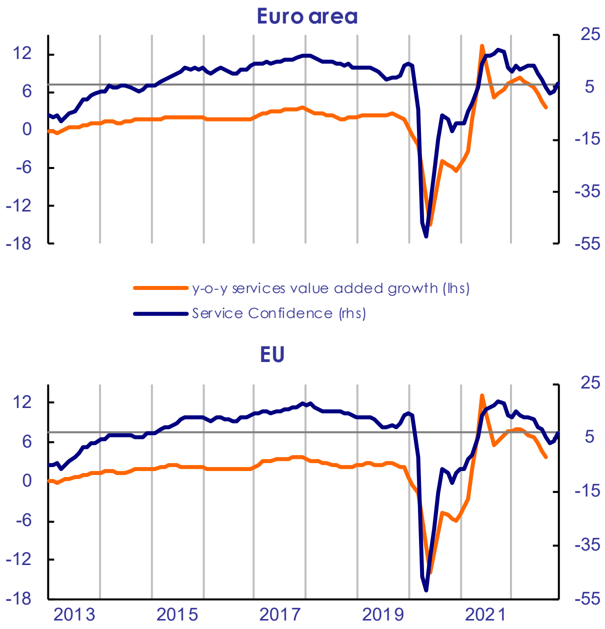
According to the quarterly manufacturing survey (carried out in October), **capacity utilisation** in manufacturing decreased compared to July in both the EU (-0.5 percentage points) and the EA (-0.9 percentage points). At 81.2% (EU) / 81.4% (EA), the indicator remained above its long-term average of 80.6% (EU) / 80.7% (EA).

Graph 1.1.7: Industry – Factors limiting production (in %)



The share of industry managers pointing to a shortage of material and/or equipment as a **factor limiting production** decreased further from the record-high levels of January and April in both the EU (by 4.3 percentage points to 40.0%) and the EA (by 7.8 percentage points to 41.8%) but remains at a high level. Also the percentage of managers indicating "shortages of labour force" as a factor limiting production eased further in October – by 1.3 (EU) and 1.9 (EA) percentage points – after reaching a peak in April. Shortage of labour force remained high, being indicated by 25.9% (EU) and 26.4% (EA) of managers in October (see Graph 1.1.7).

Graph 1.1.8: Services Confidence indicator

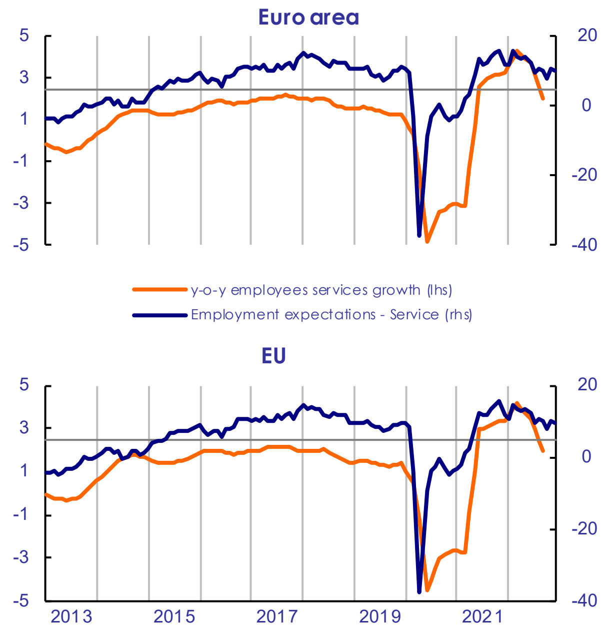


Services confidence continued to decrease in October, remained stable in November and picked up in December. All in all, in December the indicator was 0.7 (EU) and 1.1 (EA) points higher than in September. At 6.2 (EU) / 6.3 (EA) points, services confidence in December remained fractionally below its long-term average in both areas (see Graph 1.1.8).

Looking into the components of services confidence, managers' assessment of **past demand** and their **demand expectations** improved over the quarter, while their assessment of the **past business situation** deteriorated compared to September 2022.

Employment expectations in services remained broadly stable and ended the quarter 0.6 points lower than (EU) / at the same level as (EA) in September (see Graph 1.1.9). Managers' **selling price expectations** picked up in October and decreased in November and December, finishing the year broadly at the same high level as in September (0.3 points higher in the EU and 0.1 lower in the EA).

Graph 1.1.9: Employment expectations in services

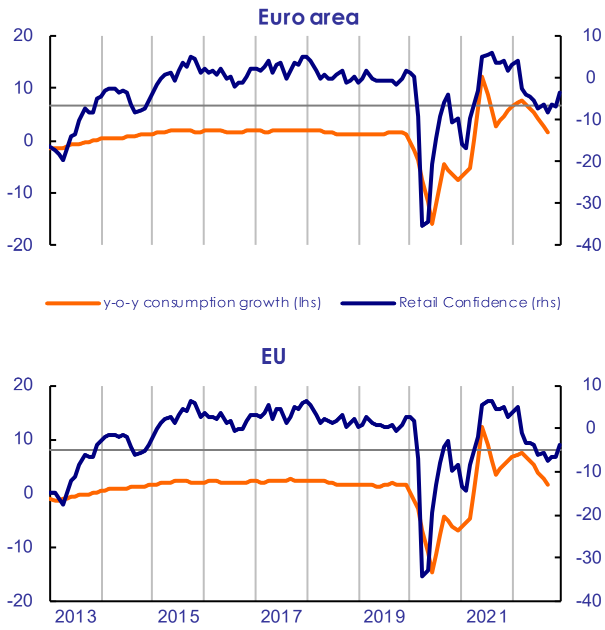


Among the six largest EU economies, services confidence improved in Italy (+3.9) and the Netherlands (+2.1), remained broadly stable in Poland (+0.3), Germany (+0.1) and France (-0.7), while worsening in Spain (-3.1).

Compared to July, **capacity utilisation in services** decreased by 0.4 (EU) and 0.3 (EA) percentage points in October, reaching 90.8% and 90.7%, respectively. In both areas, the indicator is above its long-term average (of 89.0% and 88.8%, respectively) and around half a percentage point above its level before the outbreak of COVID-19.

Retail trade confidence improved markedly in the fourth quarter of the year (+3.5 points in the EU and +4.4 points in the EA), thereby exceeding the historical average (see Graph 1.1.10).

Graph 1.1.10: Retail Trade Confidence indicator



The recovery in retail trade confidence resulted from noticeable improvements of managers' assessments of the **past** and **expected** business situation, partly offset by a strong increase in the assessment of the **volume of stocks**, which contributes negatively to the confidence indicator.

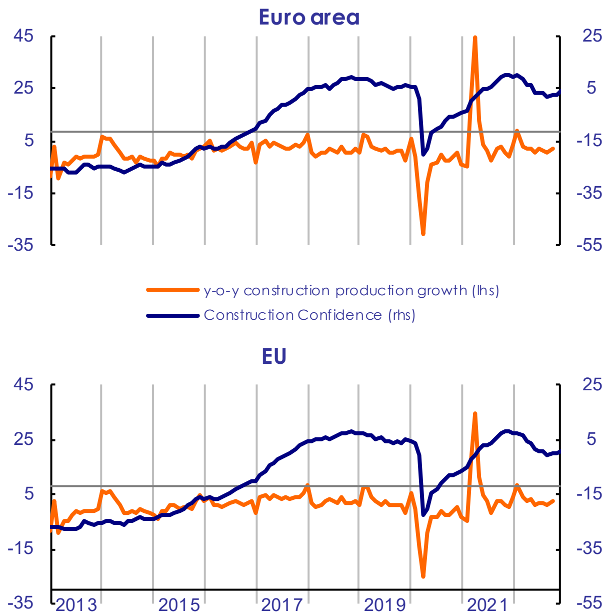
At the level of the six largest EU economies, confidence improved markedly in Germany (+6.7), France (+5.9) and the Netherlands (+4.7), and less so in Poland (+2.1) and Spain (+1.2), while it remained broadly stable in Italy (-0.2).

Construction confidence improved during the fourth quarter (+1.2 points in the EU and +2.0 points the EA), interrupting the downward trend visible since the beginning of 2022. The level of confidence remained very high by historical standards (see Graph 1.1.11).

In both areas, managers' **employment** expectations improved over the quarter, while their appraisals of **order books** remained broadly stable at September levels.

The share of construction managers pointing to a **shortage of labour as a factor limiting production** decreased compared to September in both the EU (by 2.0 percentage points to 29.7%) and the EA (by 1.9 percentage points to 29.1%). Also the corresponding shares for **shortages of material and/or equipment** decreased over the quarter. In December, the indicator was 3.9 percentage points lower than in September in the EU (18.9%) and 4.0 percentage points lower in the EA (19.8%).

Graph 1.1.11: Construction Confidence indicator

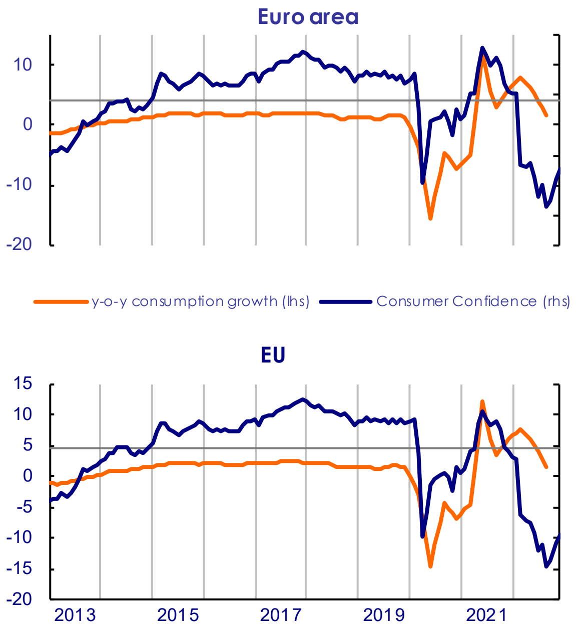


Among the largest EU economies, construction confidence increased strikingly in Spain (+12.6) and, less so, in France (+1.7) and Germany (+1.1). The indicator remained broadly stable in Italy (+0.2) and Poland (-0.6), while it decreased in the Netherlands (-2.3).

The steep downward trend visible since mid-2021 in the **consumer confidence** was interrupted and the indicator improved throughout the fourth quarter. Compared to September, the indicator gained 5.1 (EU) / 6.5 (EA) points (see Graph 1.1.12), remaining, nevertheless, far below its long-term average.

Improving confidence resulted from substantial increases in consumers' expectations about their **country's general economic situation** and their **household's future financial situation**. Though to a lesser degree, consumers also revised up their assessment of their **intentions to make major purchases**, while their appraisal of their household's **past financial situation** remained broadly unchanged.

Graph 1.1.12: Consumer Confidence indicator

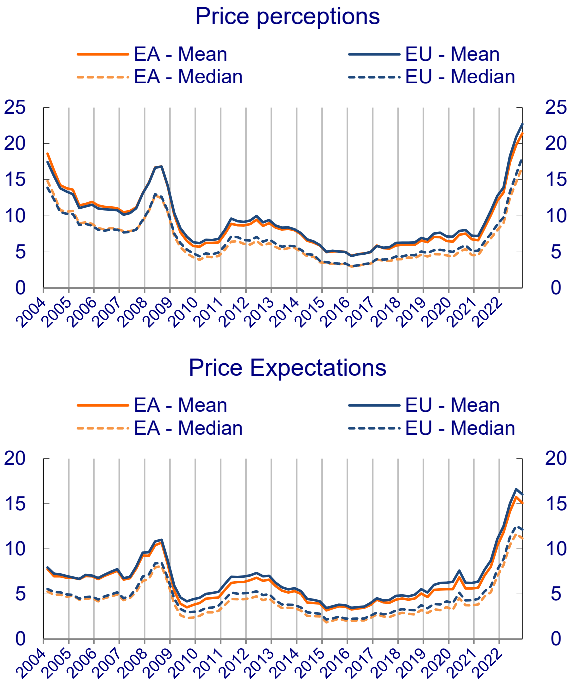


Consumer confidence improved in all six largest EU economies. The indicator rose strongly in the Netherlands (+11.1), Italy (+9.5), Germany (+7.4), and Spain (+6.7) and, less so, in Poland (+2.6), and France (+1.5). Except for Germany, confidence is now above the trough marked in the first COVID-19 wave - but remains far below the long-term average - across all largest EU economies.

In the EU and the EA, both the mean and the median of **consumers' quantitative price perceptions** continued their steep ascent in 2022-Q4, while for **quantitative price expectations** the two measures peaked and eased slightly, interrupting the upward trend visible since the beginning of 2021. Price perceptions (change over past 12 months, in %) surpassed the record-levels seen at the beginning of the series (2004), when the euro-cash changeover had had a big impact on price perceptions. Despite the small decline, consumers' price expectations (change over the next 12 months, in %) remained at a very high level (see Graph 1.1.13).[3] The results at total level were mirrored in virtually all income, education and age groups, as well as among both men and women.

The detailed results among the different socio-economic breakdowns can be downloaded from the European Commission's website.

Graph 1.1.13: Euro area and EU quantitative consumer price perceptions and expectations

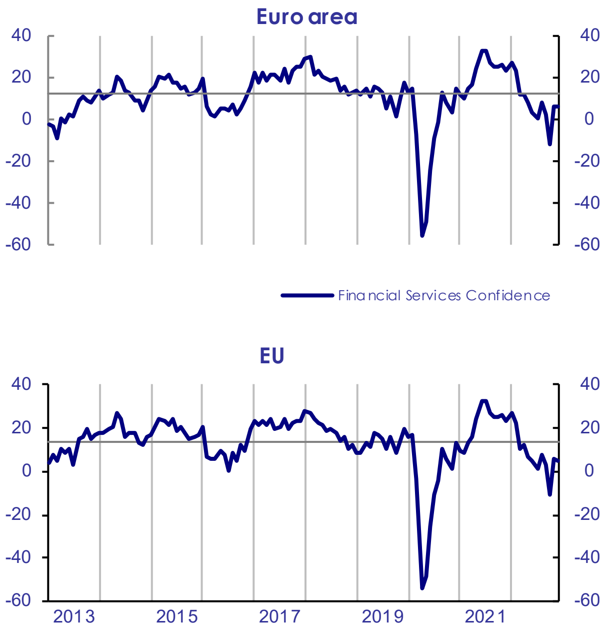


The **financial services** confidence indicator (not included in the ESI) finished the fourth quarter above its September level (+1.7 in the EU, +4.7 in the EA, see Graph 1.1.14). Confidence remains below its long-term average in both areas.

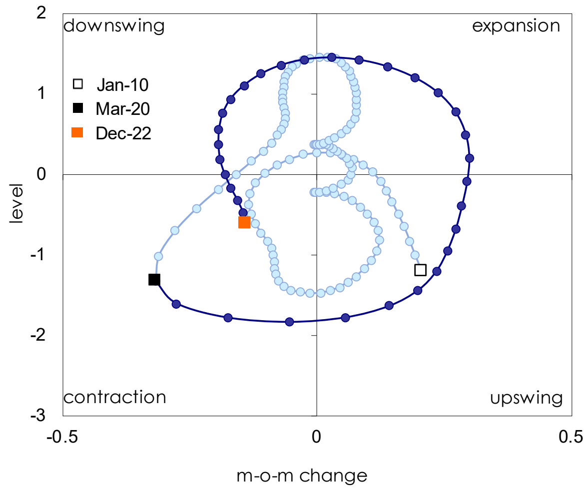
The increase in confidence was mainly driven by managers' much more positive **demand expectations**. Managers' assessment of their **past business situation** remained broadly flat in the EU, while improving in the EA. By contrast, managers' appraisal of their **past demand** worsened in the EU, while remaining broadly stable in the EA.

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

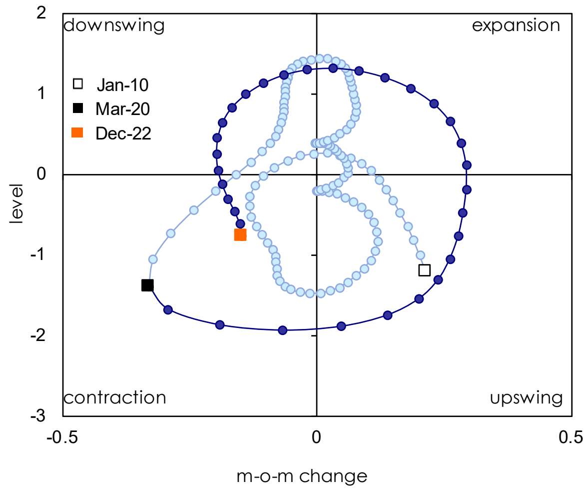
Graph 1.1.14: Financial Services Confidence indicator



Graph 1.1.15: Euro area Climate Tracer



Graph 1.1.16: EU Climate Tracer

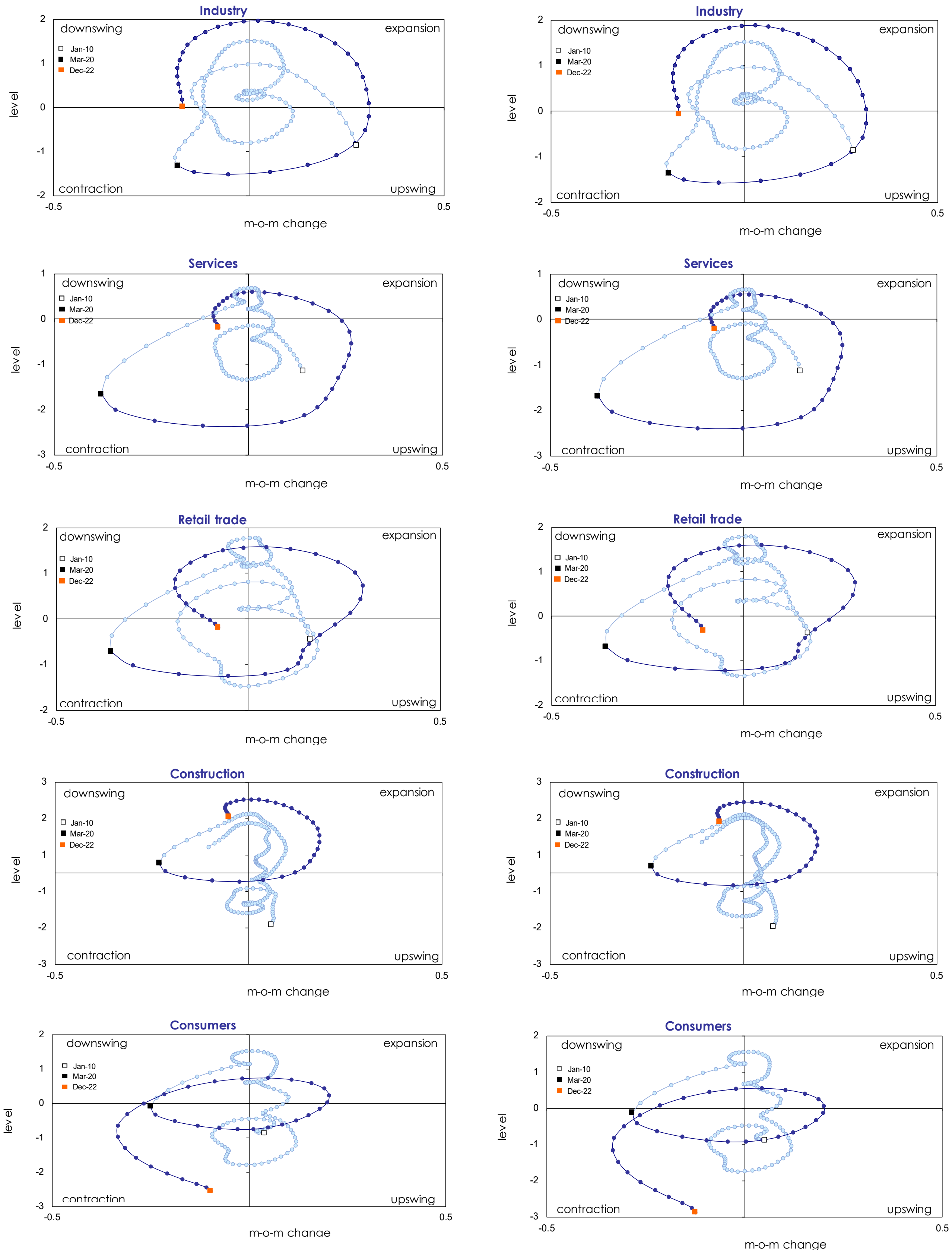


The improvement of economic sentiment in 2022-Q4, as captured by the ESI, also showed in the EU/EA **climate tracers** (see Annex for details). Both remained in the contraction quadrant, but they shifted slightly towards the upswing quadrant (see Graphs 1.1.15 and 1.1.16).

The most significant movement in the EU/EA sectoral climate tracers (see Graph 1.1.17) was for industry, which fell deeper into the downswing area and is now at the border with the contraction quadrant. The services tracer entered the contraction area but is pointing to the upswing quadrant. The retail trade and consumer tracers remained in the contraction quadrant but are moving in the direction of the upswing area. The construction tracer went deeper in the downswing area but moved slightly in the direction of the expansion area.

Graph 1.1.17: Economic climate tracers across sectors

Euro area | **EU**

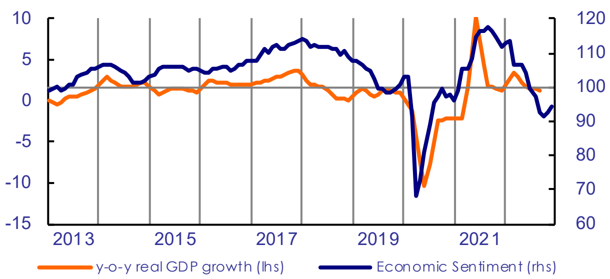


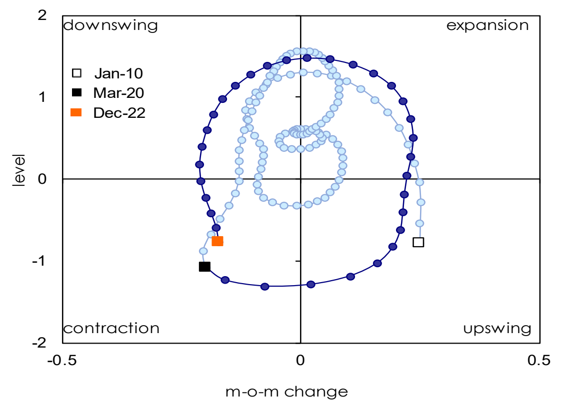
1.2. Selected Member States

Following four consecutive quarters of decline, the **German** ESI picked up over the last quarter of 2022, finishing 2.2 points above its reading at the end of 2022-Q3. At 94.6 points in December, the indicator remains, however, still below its long-term average and pre-pandemic level. The German climate tracer remained in the contraction quadrant.

The Employment Expectations Indicator (EEI) remained stable over the quarter, at the same level as in September 2022 and above its long-term average, reflecting broadly stable employment expectations in all four business sectors.

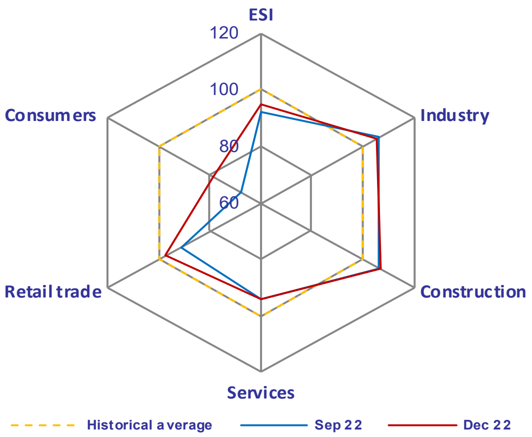
Graph 1.2.1: Economic Sentiment Indicator and Climate Tracer for Germany





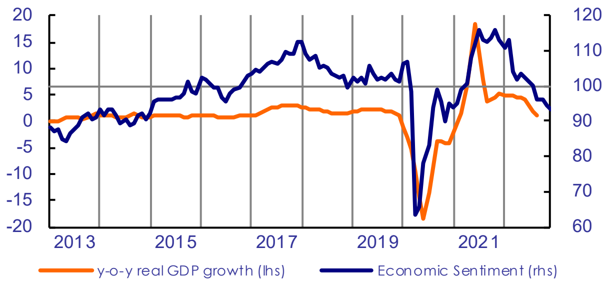
The German radar graph (see Chart 1.2.2) shows that confidence rebounded sharply among consumers, where confidence had fallen to an all-time low in September. Confidence also picked up in retail trade and, to a lesser extent, in construction, while it declined slightly further in industry. Services confidence remained virtually unchanged. The level of confidence is above its long-term average in industry and construction but remained below its long-term average in retail trade, services and among consumers.

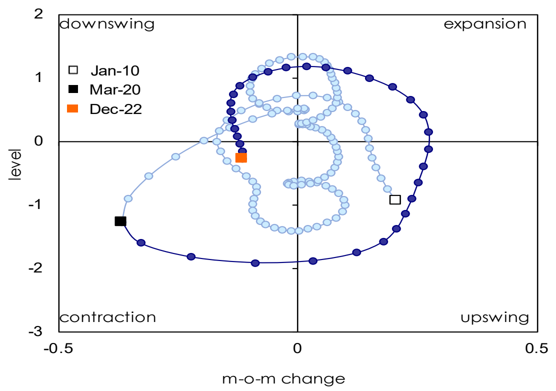
Graph 1.2.2: Radar Chart for Germany



The **French** ESI declined slightly further during the fourth quarter and is now 2.9 points lower than at the end of the third quarter of 2022. At 93.3 points in December, the indicator is well below its long-term average. The French climate tracer entered the contraction area (see Graph 1.2.3).

Graph 1.2.3: Economic Sentiment Indicator and Climate Tracer for France

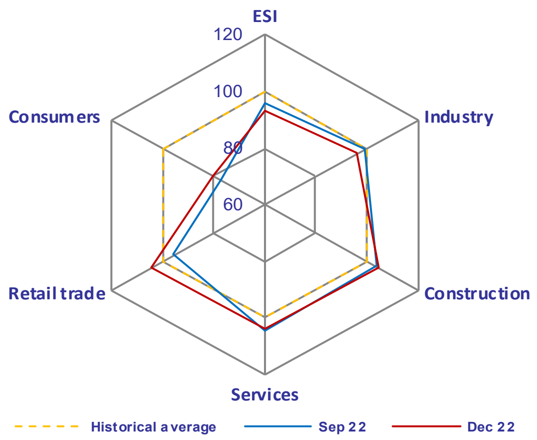




The Employment Expectations Indicator (EEI) remained broadly stable, losing -0.4 points over the quarter, as the more optimistic employment plans in construction were offset by worsened employment expectations in retail trade. Employment expectations remained broadly unchanged in services and improved only marginally in industry.

From a sectoral perspective, industry confidence deteriorated slightly further, for the fourth consecutive quarter. Confidence rebounded strongly in retail trade, and, to a lesser extent, in construction and among consumers, while it stayed virtually unchanged in services. Confidence exceeded its long-term average in retail trade, construction and services, while remaining below it in industry and among consumers (see Graph 1.2.4).

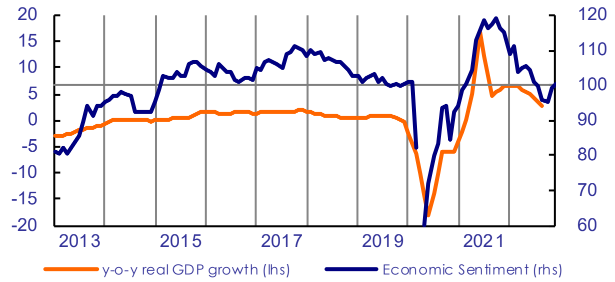
Graph 1.2.4: Radar Chart for France

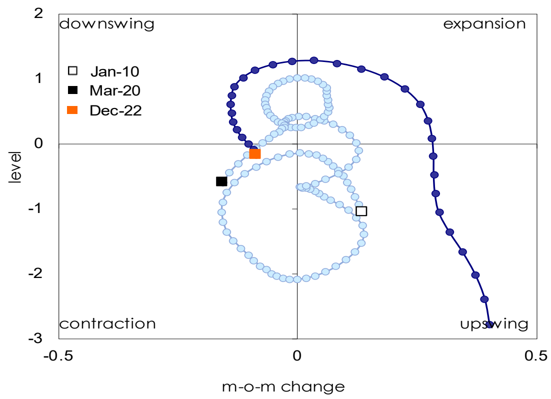


The **Italian** ESI picked up over the fourth quarter of the year (+4.2 points compared to September). At 100.3 points, the indicator is now back to its long-term average. The Italian climate tracer, however, edged into the contraction area (see Graph 1.2.5).

The Italian EEI improved by 3.4 points compared to September, reflecting upbeat employment expectations in all four business sectors, especially in industry and services.

Graph 1.2.5: Economic Sentiment Indicator and Climate Tracer for Italy[4]



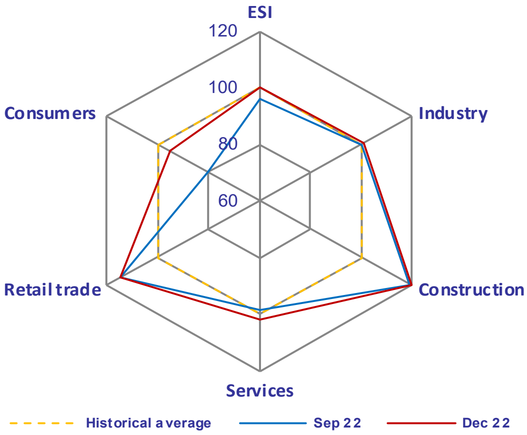


From a sectoral perspective, the Italian radar chart (see Graph 1.2.6) shows that confidence improved significantly among consumers and, though less markedly, in services, while remaining broadly unchanged in industry, construction and retail trade. The level of consumer confidence remained, however, below its long-term average, while confidence exceeded its historical average in services, industry and, more clearly so, in retail trade and construction.

---

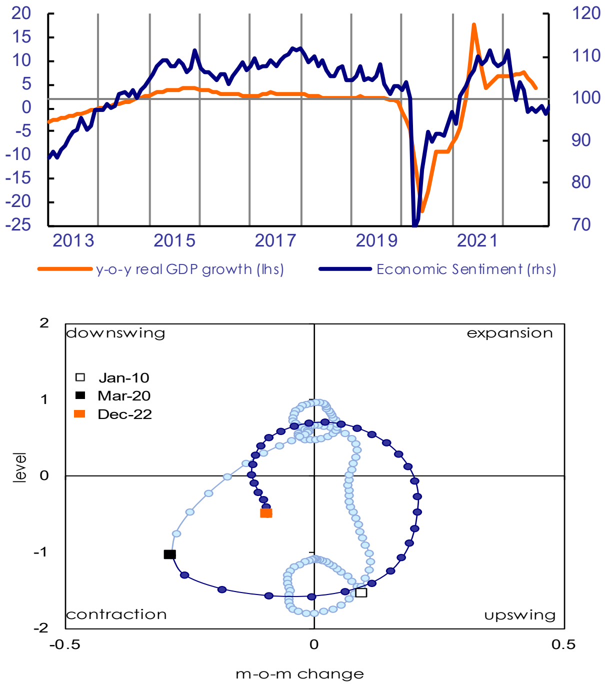
4 Due to a missing value for April 2020, the climate tracer for Italy is interrupted between March and May 2020.

Graph 1.2.6: Radar Chart for Italy



The **Spanish** ESI finished the fourth quarter of 2022 1.7 points above its level at the end of September. At 98.4 points, the indicator stayed, however, below its long-term average (see Graph 1.2.7) and the Spanish climate tracer moved further in the contraction quadrant (see Graph 1.2.7).

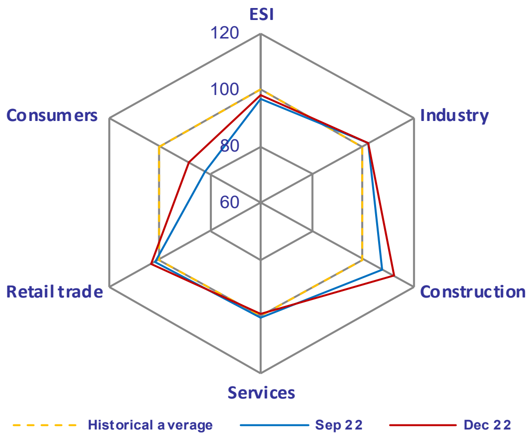
Graph 1.2.7: Economic Sentiment Indicator and Climate Tracer for Spain



The Spanish EEI stayed virtually stable (+0.5 points in December compared to September), due to strongly improved employment plans in construction, partly offset by deteriorated plans in industry. Employment plans in services and retail trade remained broadly stable.

As shown in the radar chart (see Graph 1.2.8), confidence increased markedly in construction and among consumers and, less so, in retail trade. Confidence edged down in services and remained stable in industry. Confidence fell slightly below its long-term average in services but remained above it in industry, retail trade and construction. Despite the sharp increase, consumer confidence remained well below its long-term average.

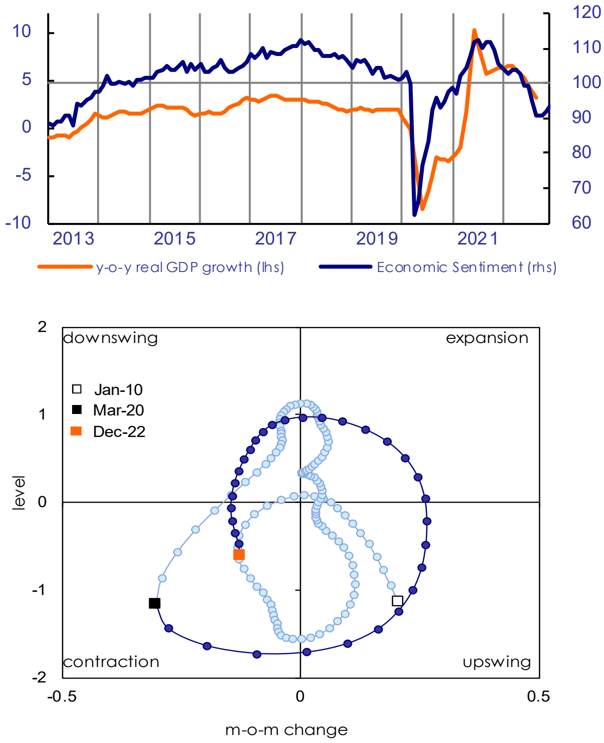
Graph 1.2.8: Radar Chart for Spain



The ESI for the **Netherlands** started to recover after five quarters of decline. The indicator was 2.6 points higher in December than in September. At 93.4, the Dutch ESI remained, however, well below its long-term average.

The climate tracer for the Dutch economy moved yet further in the contraction quadrant (see Graph 1.2.9).

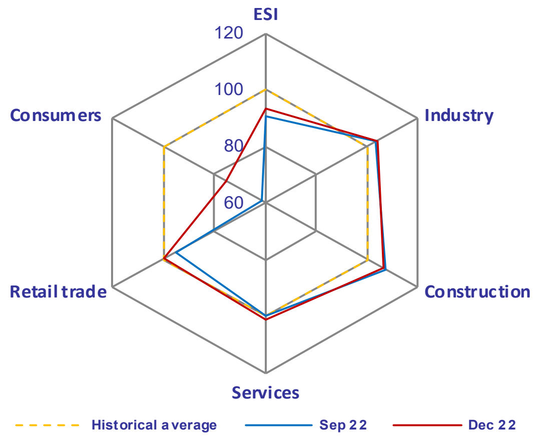
Graph 1.2.9: Economic Sentiment Indicator and Climate Tracer for the Netherlands



The EEI for the Netherlands stayed virtually stable over the quarter (+0.2 points compared to September 2022), as employment plans decreased in retail trade, while improving in services and construction. Managers' employment expectations remained virtually unchanged in industry.

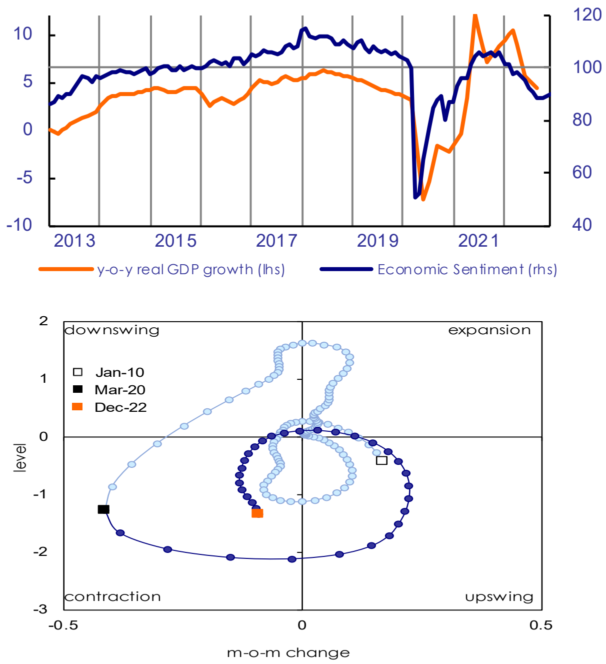
As shown in the radar chart (see Graph 1.2.10), consumer confidence rebounded strongly. Confidence in services and retail trade also brightened, while remaining broadly unchanged in industry and falling slightly in construction. While remaining above historical average in industry and construction, confidence respectively reached and surpassed its long-term average in retail trade and services. After hitting an all-time low in September, confidence among consumers, however, remained below its long-term average.

Graph 1.2.10: Radar Chart for the Netherlands



Sentiment in **Poland** recorded a slight improvement (+1.8 points compared to September). The indicator remained well below its long-term average (90.2 points in December). The Polish climate tracer stayed in the contraction quadrant (see Graph 1.2.11).

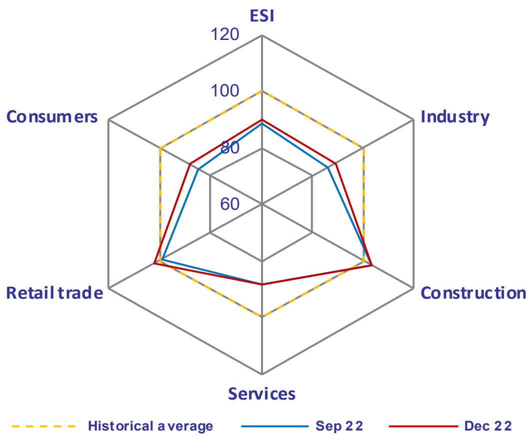
Graph 1.2.11: Economic Sentiment Indicator and Climate Tracer for Poland



The Polish EEI remained broadly stable, gaining +0.3 points over the fourth quarter, as more optimistic employment plans in industry were partly offset by slightly more pessimistic plans in construction and services. Employment plans in retail trade remained broadly unchanged.

As shown in the radar chart (see Graph 1.2.12), confidence picked up in industry, retail trade and among consumers, and remained broadly stable in services and construction. The level of confidence surpassed its historic average in retail trade and remained above in construction, while standing below it in industry, services and among consumers.

Graph 1.2.12: Radar Chart for Poland



2. SPECIAL TOPIC: RESULTS OF THE OCTOBER/NOVEMBER 2022 SURVEY ON INVESTMENT IN THE MANUFACTURING AND SERVICES SECTORS

Investment plays a key role in driving economic development, both in the short and long term. In the current context, a number of specific factors can affect investment decisions by firms. The positive effects of digitalisation acceleration, triggered by the pandemic and the support from the Recovery and Resilience Facility on 2021 investment, have continued in 2022. At the same time, the uncertainty caused by the war in Ukraine, its economic consequences, and rising interest rates could curb or cause investment projects to be revised downwards or delayed. Against the background of these considerations, this section analyses the results of the European Commission's Investment Survey conducted in October-November 2022, reporting on assessments by managers in manufacturing and services of their investment in 2022 and plans for 2023.

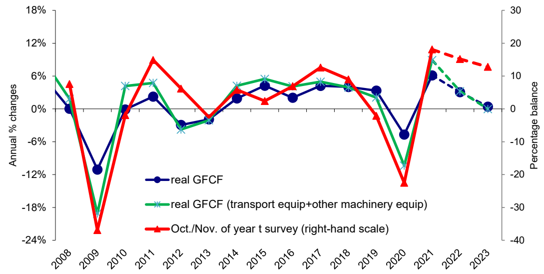
Set-up of the bi-annual investment survey

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 annual investment changes realised in the previous year (t-1) and planned in the current year (t). In autumn, they are asked about annual investment changes realised/planned in the 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).[5]

Investment in 2022 and plans for 2023

For any survey year, 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 preceding year; a second is given in March/April of the survey year; a third appraisal comes in October/November of the same year; a final assessment is given in March/April of the following year. Graph 2.1 provides an overview of managers' investment assessments for the survey year, based on the autumn surveys (i.e the third assessment) between 2008 and 2023. The graph shows that the assessments in the autumn surveys co-move quite well with the actual investment outcomes as measured by Gross Fixed Capital Formation (GFCF) in National Accounts.

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



Real GFCF data refer to EU excluding Ireland. The dotted lines for real total and transport equipment + other machinery equipment GFCF reflect the European Economic Autumn 2022 forecasts. The last point of the survey data reflects managers' investment expectations for 2023, compared to 2022.
Source: Commission services

5 The formulation of the investment questions has partially changed in autumn 2021, and the time series have been adjusted backwards accordingly (see Box 1 in the 2021Q4 EBCI).

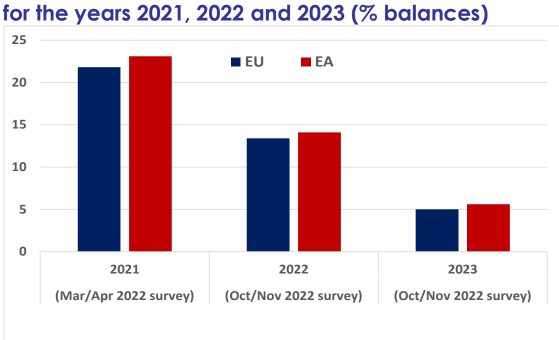
Outlook on investment in 2022 and 2023 remains positive in industry…

In October/November 2022, industry managers' assessment of their company's investment growth in the ongoing year was, on balance,[6] positive and above long-term average, but somewhat lower than in 2021. Looking forward, for 2023 managers are again expecting positive but lower growth of investment in their firm than in 2022 (see Graph 2.1 red line). The balance remains relatively high, indicating scope for an increase in investment in 2023 beyond what is projected in the Commission's autumn forecast, for both total investment (the dotted blue line in the Graph) and investment in transport and other machinery equipment investment (the dotted green line).

... and in services.

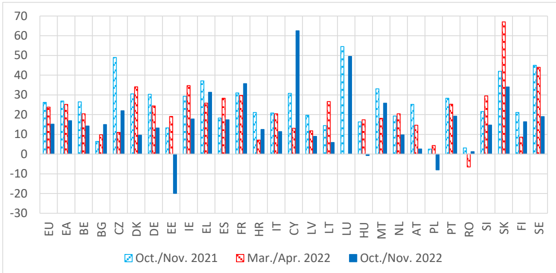
Also in services (see Graph 2.2), managers' assessment in October/November 2022 of their business' investment for the ongoing year was, on balance, positive but at a lower level than in 2021. Regarding 2023, the balance dropped further, suggesting continued softening of investment growth in services.

Graph 2.2: Services managers' investment assessment for the years 2021, 2022 and 2023 (% balances)



Industry investment plans for 2022 have been revised downwards over time. With respect to investment in 2022, managers in industry were less optimistic in the recent October/November 2022 survey compared to what they had expected a year before (i.e., October/November 2021 survey) (see Graph 2.3). A slight downward revision in investment plans was already reported in the March/April 2022 Investment Survey, when the outbreak of the war in Ukraine drove uncertainty up. Increasing energy prices and, more recently, rising interest rates have likely contributed to the downward revision. The scaling down of investment plans in the October/November 2022 survey is broad-based across Member States (see Graph 2.3).

Graph 2.3: Industry managers' investment expectations for 2022 over three successive survey vintages (% balances)

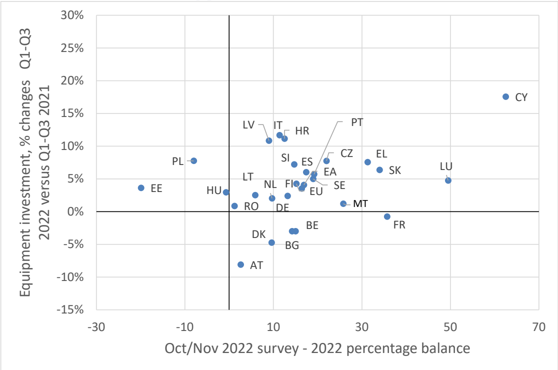


Source: Commission services

Positive industry investment growth in 2022 is broad-based across countries. In almost all EU Member States (except for EE, HU, and PL), the percentage of managers reporting to have increased their investment in 2022 compared to 2021 is higher than the percentage of those reporting a decrease – i.e. the balance of positive and negative answers is almost always positive. This result is broadly consistent with the growth in equipment investment and overall investment evidenced by National Accounts in the first three quarters of 2022. The scatter plot in Graph 2.4 shows the autumn survey results for the year 2022 and the outcomes, based on quarterly national accounts for the first three quarters of 2022 compared with the same period of 2021. Two thirds of the countries are in the upper right quadrant of the plot, where higher investment assessments for 2022 compared to 2021 coincide with increases of equipment investment during the first three quarters of 2022 compared with the same period in 2021. Five Member States (AT, BE, BG, DK, FR) are in the lower-right quadrant of the graph, suggesting that survey results are too optimistic in the light of National Account results for the first three quarters of the year. Finally, in three countries (HU, PL and EE), actual investment in the first three quarters of 2022 performed stronger than suggested by the survey results.

[6] The survey asks managers for their qualitative assessment whether their company's investment will (+) 'increase', (=) 'remain the same', or (−) 'decrease', compared to the previous year. The balance is the difference between the percentage of positive (+) answers minus that of negative (-) answers.

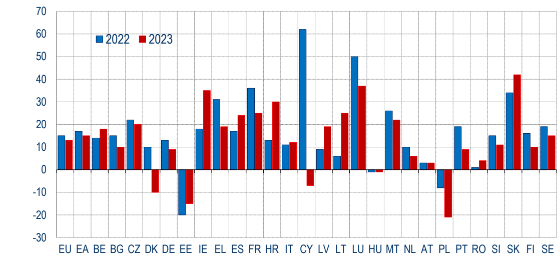
Graph 2.4: EU, investment in equipment* and Oct/Nov survey results for the year 2022 (y-o-y % changes and % balances in industry)



**based on quarterly national accounts for the first three quarters of 2022 compared with the same period of 2021. BE data shown are the Autumn Forecast projections for 2022 as no quarterly data are available.*
Source: Commission services

Positive but declining investment growth in 2023. Also concerning the year 2023, in most EU Member States the percentage of industry managers expecting to increase their investment compared to 2022 is higher than the percentage of those foreseeing a decrease. However, compared to 2022, the balance decreased in most of the countries (see Graph 2.5).

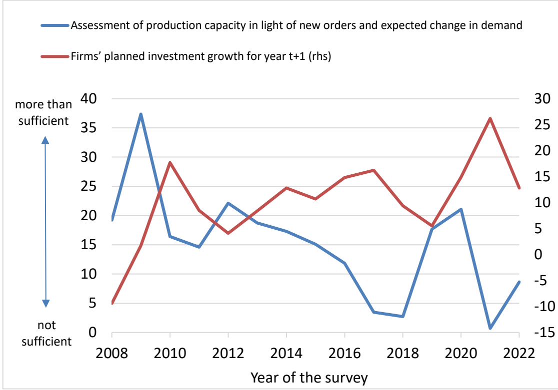
Graph 2.5: Oct/Nov 2022 survey – industry managers' investment expectations for the years 2022 and 2023 (% balances)



Source: Commission services

Managers' lower plans for investment growth in 2023 are partly related to their assessment of capacity utilisation. Graph 2.6 compares managers' investment expectations, or plans, for the year t+1 with assessments of their production capacity. 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 2023, as reported by firms at the end of 2022. The blue line captures how firms, in October of year t, assess their production capacity in light of their current order books and the expected change in demand over the coming months.[7] The higher the value of this variable, the higher the share of firms that consider their production capacity as "more than sufficient".

Graph 2.6: Expected EU investment for the year t+1 & assessment of production capacity, both surveyed in Oct/Nov of year t (% balance in industry)



Source: Commission services

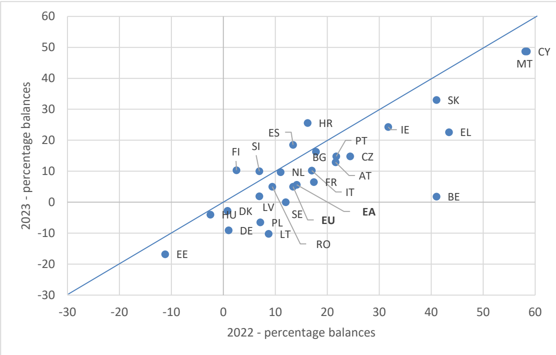
Generally, there is a negative correlation between capacity utilisation in industry and investment plans: the more excess production capacity firms consider to have (relative to orders and expected demand), the less they plan to invest. The results for the year 2021 reported in Oct/Nov 2020 were atypical, likely due to the unusual situation triggered by the pandemic. In the two latest autumn surveys (Oct/Nov 2021 and 2022), the two series moved again in opposite directions.

In services, managers in most EU Member States expect their investment to increase in 2023. However, in almost all countries, managers revised their investment plans for 2023 downward compared to 2022 (see Graph 2.7). Correspondingly, the EU/EA aggregates indicate a still positive but markedly lower figure for 2023 compared to 2022.

---

7 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".

Graph 2.7: Oct/Nov 2022 survey – services managers' investment expectations for the years 2022 and 2023 (% balances)



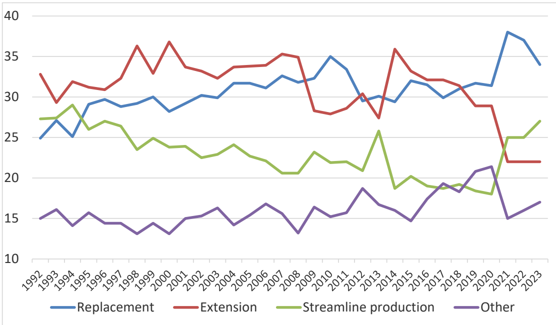
Source: Commission services

Investment structure

In the autumn survey, firms are also asked to assign their investment to four purpose 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 investment to be more geared towards the extension of production capacity than during downturns, when investment is likely focused on replacement of worn-out equipment and/or the streamlining of processes.

Low share of extension investment in industry in 2022 and 2023. While real GDP growth in the first three quarters of 2022 surprised on the upside, the share of investment that was reported in the latest survey to extend production capacity remained broadly unchanged in 2022, at the historical low level reached in 2021. Investment in 2022 thus mainly served to streamline processes or replace worn-out plants or equipment (see Graph 2.8). In 2023, managers expect an increase in the share of investment dedicated to streamline production processes, suggesting ongoing technological changes in investment, possibly including towards new green and digital technologies. Also, it is possible that rising energy prices push companies to invest in more efficient and less energy-intensive technologies.

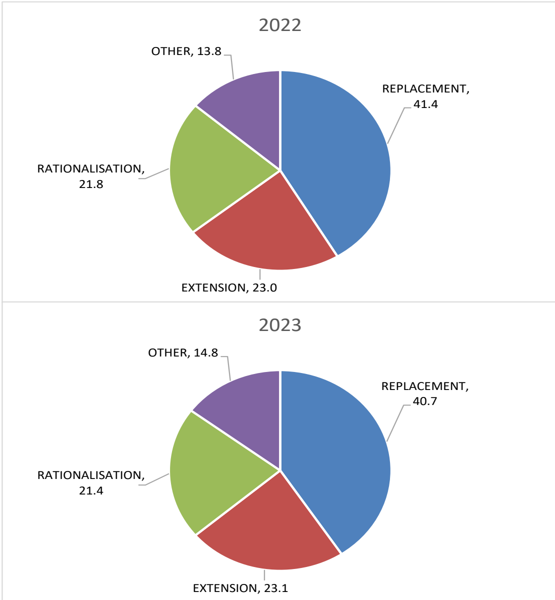
Graph 2.8: EU – Industry survey - Structure of investment (%)



Source: Commission services

In services, in both 2022 and 2023, investment reportedly served mainly replacement purposes. Extension and rationalisation objectives both represent slightly more than 20% of investment (see Graph 2.9).

Graph 2.9: EU – Services survey - Structure of investment (%)

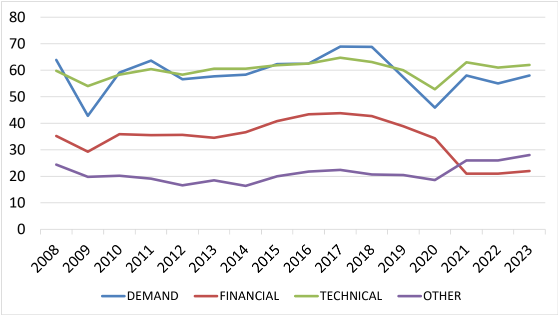


Source: Commission services

Drivers of investment

The autumn Investment Survey also collects information on the factors stimulating investment: demand, financial conditions, technical, and other factors. In the 2022 autumn survey, around 60% of industry managers reported demand and technical factors as stimulating their investment for 2022 and 2023. By contrast, a lower percentage of firms (about 20%) reported financial conditions as a stimulating factor (see Graph 2.10).

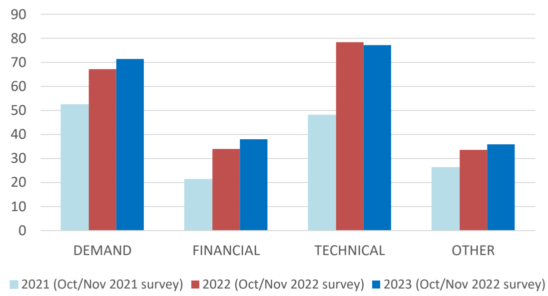
Graph 2.10: EU – Industry survey – factors stimulating investment (% of firms stating that one factor is stimulating)



Source: Commission services

In services, nearly 80% of managers stated technical factors as stimulating investment for both 2022 and 2023. Demand is considered to stimulate investment for 2022 and 2023 by about 70% of managers. This is almost 30 and 20 percentage points, respectively, more than for 2021 (from the Oct/Nov 2021 survey). Financial conditions are assessed as stimulating investment by slightly more than 30% of managers in 2022 and nearly 40% in 2023. Finally, around 35% of managers stated 'other factors' as stimulating investment in both 2023 and 2023 (see Graph 2.11).

Graph 2.11: EU – Services survey – factors stimulating investment (% of firms stating that one factor is stimulating)



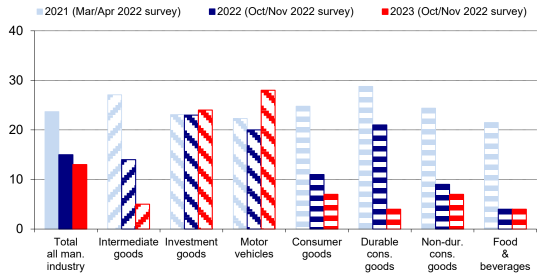
Source: Commission services

Does investment activity differ across sub-sectors?

The survey results can be broken down to track developments by 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 the statistical classification NACE Rev2.

The increase in investment in 2022 and 2023 is broad-based across the main industrial groupings, but some sectoral differences emerge (Graph 2.12)**.** For 2022, the net balance of managers in the investment (including the motor vehicle sector) and durable consumer goods-producing sectors reporting an increase rather than a decrease in their investment is high at above 20%. For 2023, the balance remains positive but is getting lower in all sub-sectors except for the investment goods sector (including particularly the motor vehicle sector). The balance among producers of intermediate and non-durable consumer goods is also positive, but much smaller than e.g. in the investment goods sector in 2022, and is foreseen to reduce even further in 2023.

Graph 2.12: EU investment plans by Main Industrial Groupings (percentage balances in industry)



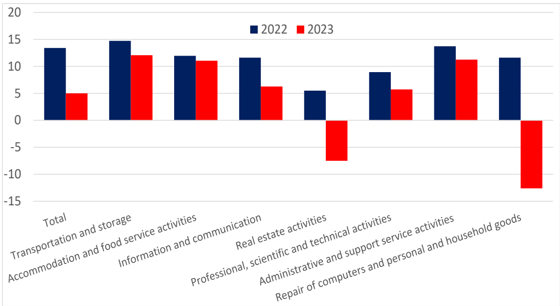
Source: Commission services

Generally lower investment growth than in 2021. In terms of changes in investment growth from 2021 to 2022, only the investment goods sector (which includes the motor vehicle sector) remained broadly stable, while the balance worsened markedly in the other MIGs. A final interesting observation emanating from Graph 2.12 is the strong investment growth foreseen by motor vehicle producers for 2022 and 2023. A possible explanation could be the ongoing, sweeping transformation of the sector from combustion engines to electric vehicles, which requires huge investment.

High investment growth in 2022 for durable consumer goods. Zooming into the consumer goods sector, for 2022, the balance is much higher in the durable consumer goods MIG than in the non-durable consumer goods group, which includes food and beverages producers. This different pattern may be explained considering that during 2020-21, demand for certain durable consumer goods, such as furniture to equip home offices[8], or consumer electronics to facilitate home entertainment (TVs, game consoles, etc.) could not be fully satisfied. This may have led an important share of enterprises to invest in order to increase their production and/or productivity. However, according to the Oct/Nov 2022 survey, investment plans for 2023 are cut back significantly.

Broad-based investment growth in services in 2022 but cooling in 2023. Across the services sub-sectors (see Graph 2.13), the balance results point to a broad-based increase in investment in 2022. For 2023, the balance remains positive at the total sector level but decreases markedly, mainly driven by significant cutbacks of investment plans in ‘real estate activities’[9] and ‘repair of computers and personal and household goods’, where balances turn negative.

Graph 2.13: EU investment plans by services sub-sectors (as surveyed in Oct/Nov 2022)



Source: Commission services

Conclusions

This special topic analyses the results of the Investment Survey conducted in October-November 2022, enquiring about business investment in 2022, as well as plans for 2023.

On average, in the EU, managers in the manufacturing and services sectors assessed their investment for both 2022 and 2023 as increasing. However, the difference between the percentage of managers expecting an increase and those expecting a decrease is lower in 2022 than in 2021 and is foreseen to reduce further in 2023.

The decrease in the balance for 2022 industry investment can be related to managers’ rising assessment of their production capacity in the latest quarterly industry survey carried out in October 2022.

In industry, investment for both 2022 and 2023 served or will mainly serve 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. Also for services, for both 2022 and 2023, investment mainly served or will serve replacement purposes. The share of investment used for extension and rationalisation accounts for slightly more than 20% each.

In both industry and services, for both 2022 and 2023, a high percentage of managers stated demand and technical factors as stimulating investment, while financial conditions are only cited by one fifth of firms in industry and around one third of firms in services as stimulating.

From a sectoral perspective, the increase in investment in 2022 is broad-based across industry and services sub-sectors. For 2023, high investment growth is expected in the investment goods sector, including, in particular, motor vehicle production. By contrast, investment growth is set to slow down markedly among intermediate goods and consumer goods producers, especially for durables. In services, investment is set to decline more markedly in 2023 according to the survey results, mainly due to decreases in investment plans in ‘real estate activities’ and ‘repair of computers and personal and household goods’.

[8] 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.

[9] 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.

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.

EUROPEAN ECONOMY TECHNICAL PAPERS

European Economy Technical Papers can be accessed and downloaded free of charge from the following address:
https://ec.europa.eu/info/publications-0/economy-finance-and-euro-publications_en?field_eurovoc_taxonomy_target_id_selective=All&field_core_nal_countries_tid_selective=All&field_core_flex_publication_date[value][year]=All&field_core_tags_tid_i18n=22620.

Titles published before July 2015 can be accessed and downloaded free of charge from:

- http://ec.europa.eu/economy_finance/db_indicators/cpaceq/index_en.htm
  (EU Candidate & Potential Candidate Countries' Economic Quarterly)
- http://ec.europa.eu/economy_finance/publications/cycle_indicators/index_en.htm
  (European Business Cycle Indicators)

GETTING IN TOUCH WITH THE EU

In person

All over the European Union there are hundreds of Europe Direct Information Centres. You can find the address of the centre nearest you at: http://europa.eu/contact.

On the phone or by e-mail

Europe Direct is a service that answers your questions about the European Union. You can contact this service:

- by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
- at the following standard number: +32 22999696 or
- by electronic mail via: http://europa.eu/contact.

FINDING INFORMATION ABOUT THE EU

Online

Information about the European Union in all the official languages of the EU is available on the Europa website at: http://europa.eu.

EU Publications

You can download or order free and priced EU publications from EU Bookshop at: http://publications.europa.eu/bookshop. Multiple copies of free publications may be obtained by contacting Europe Direct or your local information centre (see http://europa.eu/contact).

EU law and related documents

For access to legal information from the EU, including all EU law since 1951 in all the official language versions, go to EUR-Lex at: http://eur-lex.europa.eu.

Open data from the EU

The EU Open Data Portal (http://data.europa.eu/euodp/en/data) provides access to datasets from the EU. Data can be downloaded and reused for free, both for commercial and non-commercial purposes.

Publications Office
of the European Union