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# European Business Cycle Indicators

2<sup>nd</sup> Quarter 2021

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# European Business Cycle Indicators

## 2<sup>nd</sup> Quarter 2021

### Special topic

Managers' and consumers' price expectations on the rise

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## OVERVIEW

### Recent developments in survey indicators

- Thanks to a surge in April, followed by further marked improvements in May and June, the Economic Sentiment Indicators (ESI) for the EU and the euro area (EA) gained a remarkable 17.1 and 17.0 points compared to March. The ESI is now well above its long-term average, reaching a 21-year high in both regions.
- Likewise, the Employment Expectations Indicator (EEI) in both the EU and the EA recorded a sharp rise in April, followed by two further, albeit somewhat less marked, increases in May and June. Compared to March, the EEI in June is 13.5 (EU) / 13.8 (EA) points up and well above its long-term average of 100 in both areas.
- From a sectoral perspective, the second quarter of 2021 saw the most significant improvements in confidence in services and retail trade. The gains in industry, construction and among consumers were also marked. Considering the long-term averages of the indicators, the current level of confidence is high in all sectors.
- The ESI recovered in all of the six largest EU economies. The gains registered between March and June 2021 were strongest in Italy (+18.4), followed by Poland (+16.6), France (+16.0), the Netherlands (+15.8), Germany (+13.5) and Spain (+10.3). In June, the ESI was well above its long-term average of 100 and its pre-pandemic level in all six countries.
- In April, capacity utilisation in manufacturing increased markedly in both the EU (+4.7 percentage points) and the EA (+5.0 percentage points) compared to the last survey of January. At 82.3% (EU) and 82.5% (EA) in April, both indicators are now above their respective long-term averages of 80.5% (EU) / 80.6% (EA). Both indicators are also higher than their pre-pandemic level recorded in January 2020. Capacity utilisation in services increased by 1.1 percentage points in the EU (to 86.9%) and by 1.2 percentage points in the EA (to 86.4%) compared to January. In both regions, however, the indicator remains below both its long-term average (88.9% in the EU, 88.6% in the EA) and its pre-pandemic level (90.5% in the EU, 90.3% in the EA).

### Special topic: Managers' and consumers' price expectations on the rise

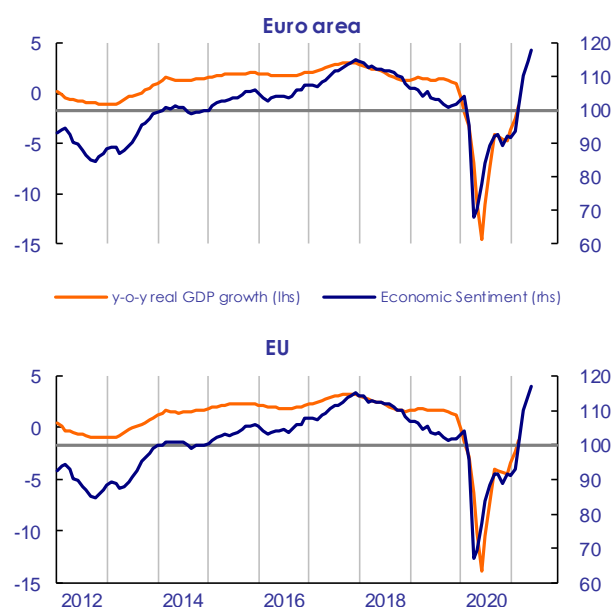
Since the beginning of the year, consumer inflation has been rising rapidly. This Special Topic explores to what extent selling and consumer price expectations up to June 2021 can provide additional information on consumer inflation going forward. Upside pressure on prices appears to be a response to shortage of material and broad demand pressures, as highlighted by increasing capacity utilisation and orders and low levels of stocks. However, in the services sector, survey results suggest that price pressure remained overall contained in June. Still, with demand returning forcefully to certain contact-intensive services after a protracted COVID-related standstill, shortage of labour may temporarily push up prices in contact-intensive activities further. Statistical analysis suggests that the recent surge in selling price expectations could translate into further price pressures in the near future for products sold by the surveyed managers – either at intermediate or final level. Under the current exceptional circumstances, selling price expectations may provide important indications of further pressure ahead on consumer prices and therefore should be carefully monitored.

# 1. RECENT DEVELOPMENTS IN SURVEY INDICATORS

## 1.1. EU and euro area

The economic sentiment indicators (ESI) for the EU and the euro area (EA) rose sharply during the second quarter of 2021 (see Graph 1.1.1). In June, the indicator reached a 21-year high in both areas.

Graph 1.1.1: Economic Sentiment Indicator



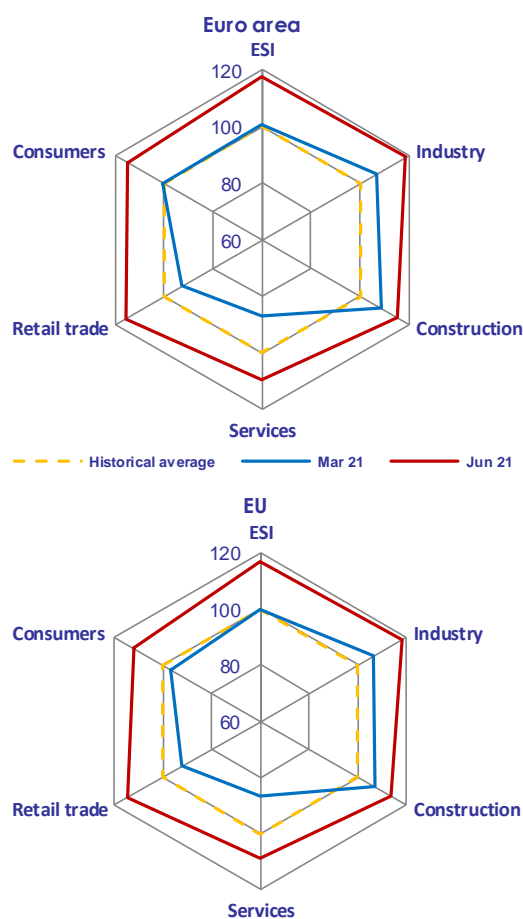
Note: The horizontal line (rhs) marks the long-term average of the survey indicators. Confidence indicators are expressed in balances of opinion and hard data in y-o-y changes. If necessary, monthly frequency is obtained by linear interpolation of quarterly data.

The ESI finished the second quarter a substantial 17.1 (EU) / 17.0 (EA) points above its level at the end of the first quarter of 2021. At 117.0 (EU) and 117.9 (EA) points, the ESI is well above its pre-crisis level and its long-term average of 100 in both regions.

Looking at the ESI's sectoral components (see Graph 1.1.2), the second quarter of 2021 saw the most significant improvements in confidence in services and retail trade. The gains in industry, construction and among consumers were also marked. Considering the long-term averages of

the indicators, the current level of confidence is high in all sectors.

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.

Except for construction, where confidence stood at record levels before the COVID19 outbreak in Europe, all confidence indicators finished the second quarter well above their respective pre-pandemic reading of February 2020.

At country level, the ESI recovered in all of the six largest EU economies. The gains registered between March and June 2021 were strongest in Italy (+18.4), followed by Poland (+16.6), France (+16.0), the Netherlands (+15.8),

Germany (+13.5) and Spain (+10.3). In June, the ESI was well above its long-term average of 100 and its pre-pandemic level in all six countries.

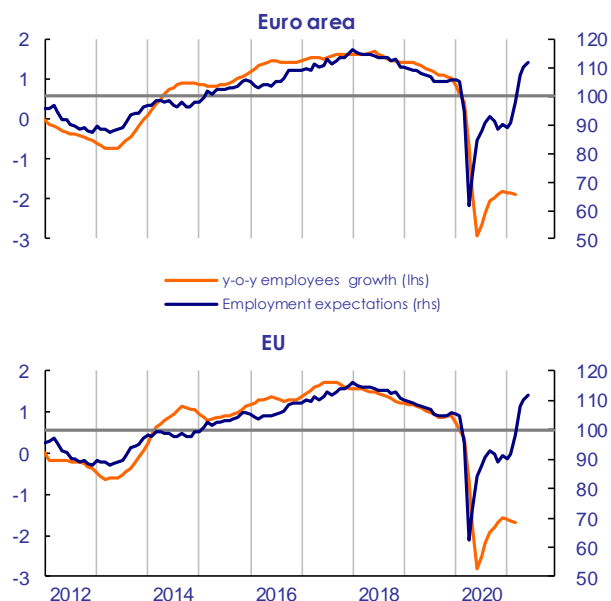
During the second quarter of the year, the evolution of the ESI was broadly in line with developments in other survey-based bellwethers for the EA/EU. Markit Economics' PMI Composite Output Index for the EA increased throughout the second quarter, bringing the indicator to a level (59.5 points) not seen since June 2006.

Also the Ifo Business Climate Index (for Germany), improved markedly during the second quarter and is now well above its pre-pandemic levels.

The Employment Expectations Indicator (EEI)<sup>1</sup> moved in line with the ESI. The EEI in both the EU and the EA recorded a sharp rise in April, followed by two further, albeit somewhat less marked, increases in May and June. Compared to March, the EEI in June is 13.5 (EU) / 13.8 (EA) points up and well above its long-term average of 100 in both areas (see Graph 1.1.3).

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

Graph 1.1.3: Employment expectations indicator



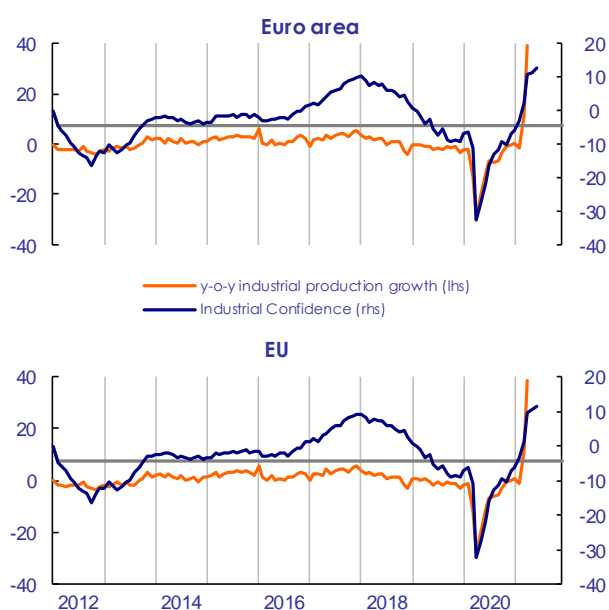
<sup>1</sup> The new indicator was presented in the 2019-Q4 special topic of the [European Business Cycle Indicators](#) publication (see also the [Methodological User Guide](#) to the Joint Harmonised EU Programme of Business and Consumer Surveys, p. 22, for a description of the EEI).



## Sector developments

**Industry confidence** in 2021-Q2 recovered for the fourth quarter in a row. Thanks to a significant improvement in April, followed by two further increases in May and June, the indicator gained 10.3 (EU) / 10.6 (EA) points compared to March 2021. The boost lifted the indicator in both regions firmly above its long-term average and pre-pandemic readings (see Graph 1.1.4), to a record level of 11.4 in the EU and 12.7 in the euro area.

Graph 1.1.4: Industry Confidence indicator



Zooming into the individual components of industrial confidence, all of them improved sharply. More precisely, managers' **production expectations** increased sharply in April, reaching a historical high and then declined in May and June. Managers' assessment of **order book** increased strikingly throughout the quarter and their appraisals of **stocks** are now at historically scarce levels.

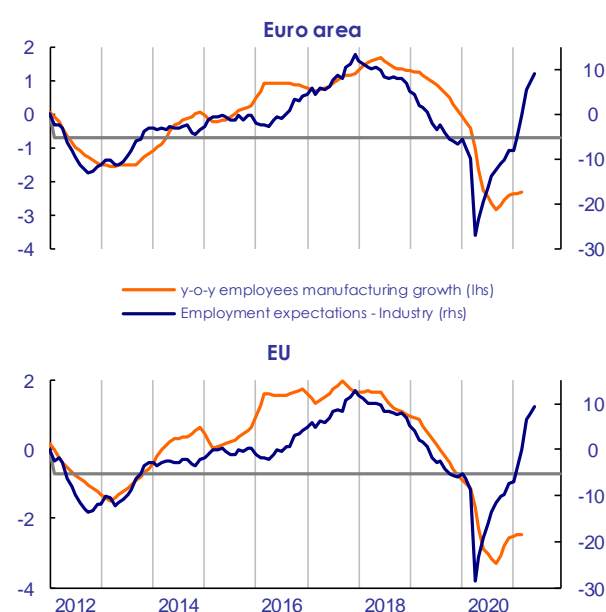
Of the components not included in the confidence indicator, managers' appraisals of both **export order books** and **past production** saw a significant improvement over the quarter, too.

Managers' **employment expectations** (see Graph 1.1.5) recovered for the fourth quarter in a row, outstripping the indicator's pre-pandemic level and long-term average in both the EU and the EA. The same observations hold true for

their **selling price expectations**, which saw the sharpest month-on-month increase on record in April and reached an all-time high in June (see also the Special Topic of this edition).

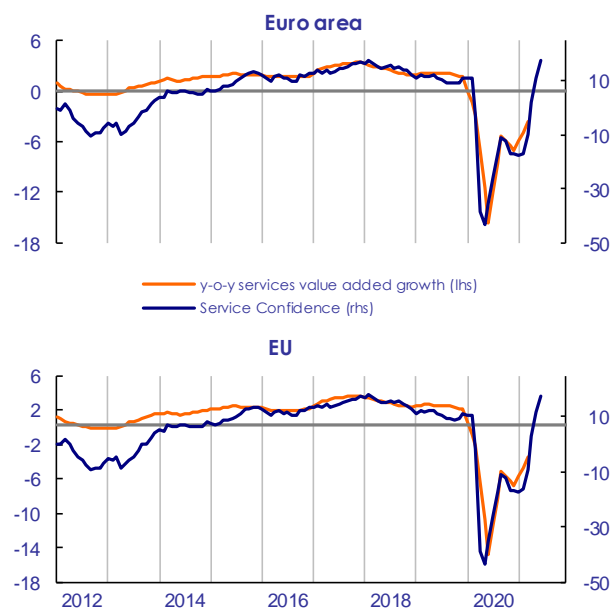
Substantial increases were registered in all the six largest EU economies: the Netherlands, (+11.4), Italy (+11.3), Germany (+9.7), France (+9.3), Poland (+6.5) and Spain (+5.9). Industry confidence is now above its pre-pandemic and long-term average level in all these countries. In Germany and the Netherlands the indicator even reached an all-time high in June.

Graph 1.1.5: Employment expectations in Industry



According to the quarterly manufacturing survey (carried out in April), **capacity utilisation in manufacturing** increased markedly in both the EU (+4.7 percentage points) and the EA (+5.0 percentage points) compared to the last survey of January. At 82.3% (EU) and 82.5% (EA) in April, both indicators are now above their respective long-term averages of 80.5% (EU) / 80.6% (EA). Both indicators are also higher than their pre-pandemic level recorded in January 2020.

Graph 1.1.6: Services Confidence indicator



**Services confidence** improved sharply during the second quarter, neutralising the losses the indicator had incurred in the first and fourth quarters of last year. Compared to March, the indicator gained 27.1 (EU) / 27.5 (EA) points on the quarter. Scoring at 17.7 (EU) / 17.9 (EA), services confidence in June is now well above its long-term average and pre-pandemic level in both regions (see Graph 1.1.6).

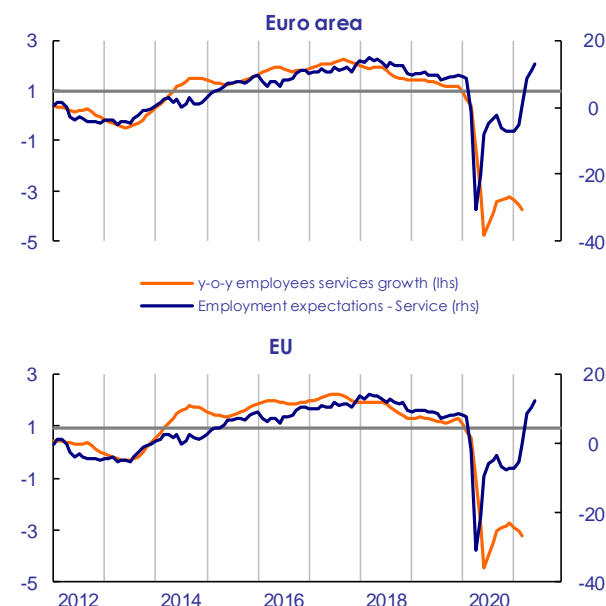
At sub-sector level, the surge in services confidence was broad-based. During the second quarter, thanks to the lifting of most of the restrictions related to COVID-19, confidence in contact-intensive services such as accommodation, restaurants, and travel services (particularly affected by the lockdown) increased significantly. Overall, confidence in contact-intensive services activities is now close to its pre-crisis level, while it is above it in non-contact-intensive services activities.

Looking into the components of services confidence (i.e. managers' appraisals of **past demand**, the **past business situation** and their **demand expectations**), all of them registered sharp increases all over the quarter. Only managers' demand expectations slowed in June, recording a less significant increase than in the previous two months.

In both the EA and the EU, **employment expectations in services** improved sharply in the second quarter (see Graph 1.1.7). Managers' **selling price expectations** also saw a

substantial increase over the quarter, which resulted from a significant rise in April and May.

Graph 1.1.7: Employment expectations in services

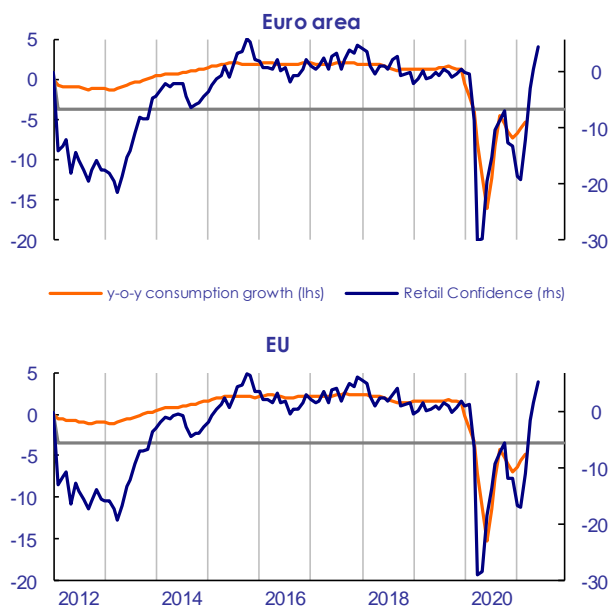


Focusing on the six largest EU economies, the period from March to June brought remarkable increases in services confidence across the board, most so in Spain (+37.4), followed by Germany (+27.2), the Netherlands (+27.0), Italy (+24.5), France (+23.2) and Poland (+18.3). Except for Poland, the indicator in these countries is now above its long-term average.

**Capacity utilisation in services**, as measured by the quarterly survey conducted in April, increased by 1.1 percentage points in the EU (to 86.9%) and by 1.2 percentage points in the EA (to 86.4%) compared to January. In both regions, however, the indicator remains below both its long-term average (88.9% in the EU, 88.6% in the EA) and its pre-pandemic level (90.5% in the EU, 90.3% in the EA).

In the second quarter 2021, **retail trade confidence** continued the upward development that started in March. Thanks to a sharp rise in April followed by two further marked increases in May and June, the indicator ended the second quarter significantly higher (+16.3 points in the EU, +16.7 points in the EA) than its reading of March. In both regions, confidence indicators are now well above the long-term average and pre-pandemic levels (see Graph 1.1.8).

Graph 1.1.8: Retail Trade Confidence indicator



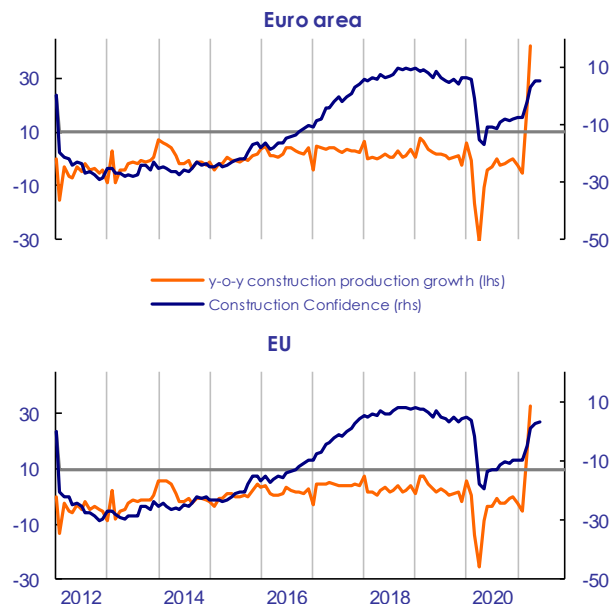
All the components of retail trade confidence improved strongly over the quarter. Managers' assessments of the **past business situation** rose sharply throughout the quarter, while their expectations regarding the **future business situation** improved substantially in April, less so in May and decreased in June. Managers signalled depleted **levels of stocks** at the end of 2021-Q2. Levels of stocks, which enter with an inverted sign in the confidence indicator, decreased markedly in April, picked up slightly in May, and decreased again in June.

Retail trade confidence posted sharp increases in the six largest EU economies. The increase was particularly pronounced in Spain (+28.8), followed by the Netherlands (+18.7), Italy (+16.8), Germany (+15.9), Poland (+13.6) and France (+13.0). In both the EU and the euro area, confidence is now well above the long-term average and pre-pandemic levels.

Thanks to two significant increases in April and March, and a further slight rise in June, **construction confidence** ended the second quarter of the year 8.3 (EU) / 7.4 (EA) points above the level of March. In both regions, the indicator is comfortably above its long-term average, but still slightly below its pre-pandemic level (see Graph 1.1.9).

In terms of components, EU/EA managers' appraisals of **order books** and their **employment expectations** brightened. The latter, after a strong increase in April and a slight increase in May, however decreased in June.

Graph 1.1.9: Construction Confidence indicator

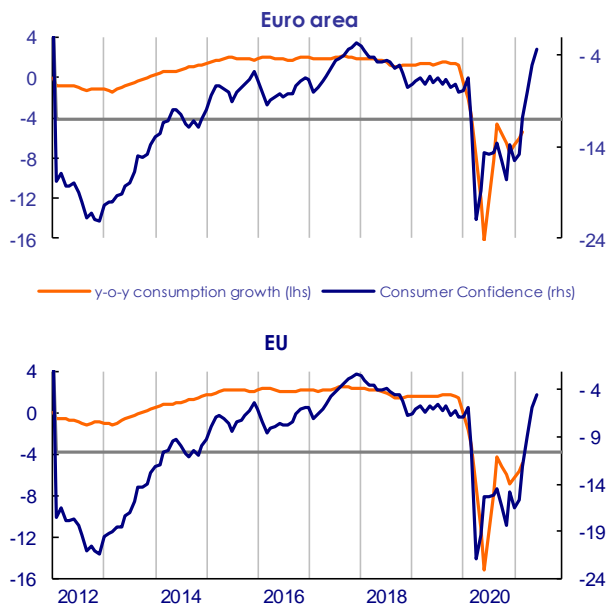


Construction confidence firmed sharply in Spain (+11.5), followed by France (+6.9), the Netherlands and Poland (both +6.4), Italy (+6.1) and Germany (+4.4). Worth highlighting, confidence in France, Italy, the Netherlands and Poland registered a decrease in June (the Netherlands also in May). The indicator is now above its long-term average in all of the six largest Member States but it is still below its pre-pandemic level in Germany, France and Poland.

**Consumer confidence** in March came in 7.6 (EU) / 7.5 (EA) points above its reading in March. Confidence improved all over the quarter and is now above both the long-term average and the pre-pandemic level (see Graph 1.1.10).

Looking at the individual components of the confidence indicator, consumers in both areas were much more optimistic in respect of the **general economic situation in the country** and, though to a lesser extent, their intentions to **make major purchases** and **their past and future personal financial situation**.

Graph 1.1.10: Consumer Confidence indicator



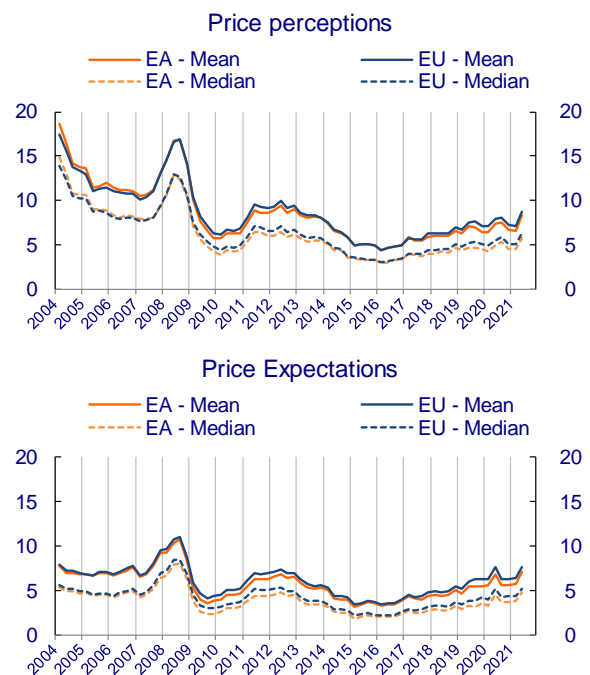
While not included in the consumer confidence indicator, **consumers' savings expectations** increased compared to March, reaching an all-time high in May.

Consumer sentiment brightened in all of the six largest EU economies, namely in the Netherlands (+9.7), Italy (+8.3), France (+8.0), Poland (7.4), Germany (+7.0) and Spain (+5.7). In June, confidence was well above its long-term average in all of the six Member States and, except for Spain and Poland, confidence was also above its pre-pandemic levels.

In the EU and the EA, both the mean and the median of **consumers' price perceptions** and **expectations** increased in 2021-Q2 compared to 2021-Q1 (see Graph 1.1.11).<sup>2</sup>

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

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

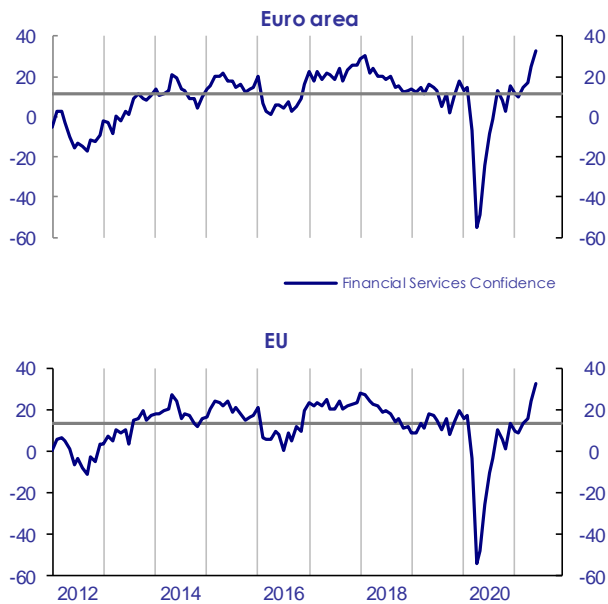


The **financial services confidence** indicator (not included in the ESI) strengthened significantly by 19.3 (EU) / 18.2 (EA) points from March to June, thanks, notably, to two substantial increases in May and June. In June, the indicator was far above its long-term average and its pre-pandemic level in both areas (see Graph 1.1.12).

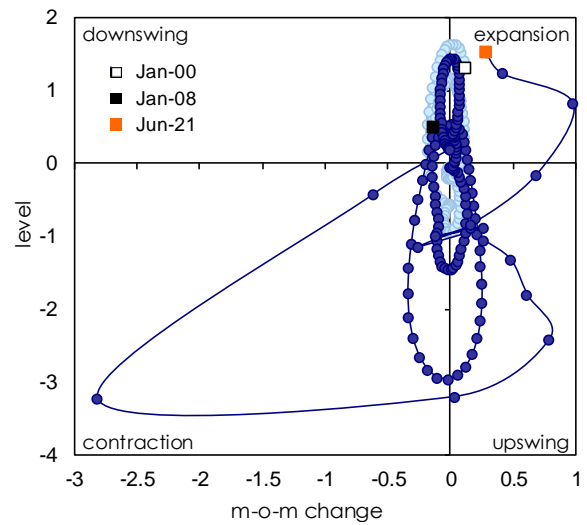
Taking a look at the individual components underlying the indicator, the increase in confidence resulted from substantial rises of all three components (i.e., managers' assessments of the **past demand** and **business situation** and their **demand expectations**).

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

Graph 1.1.12: Financial Services Confidence indicator

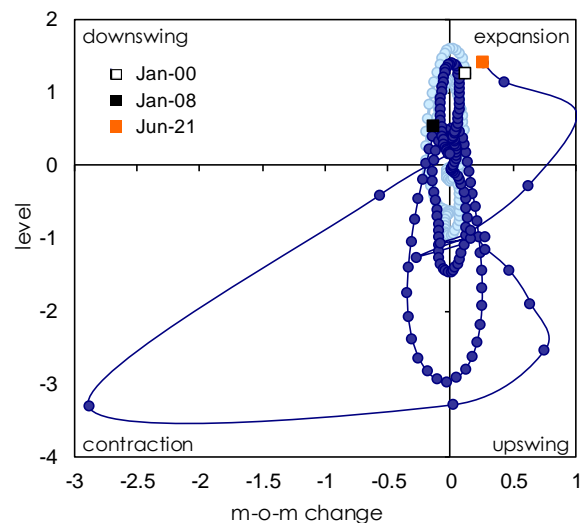


Graph 1.1.13: Euro area Climate Tracer



The dynamics of the ESI in the second quarter of the year, namely a sharp increase in April, followed by two less pronounced but still marked increases in May and June, also showed in the EU/EA **climate tracers** (see Annex for details). In April, the climate tracer entered the expansion quadrant and in May and June it started to move in the direction of the downswing area (see Graphs 1.1.13 and 1.1.14).

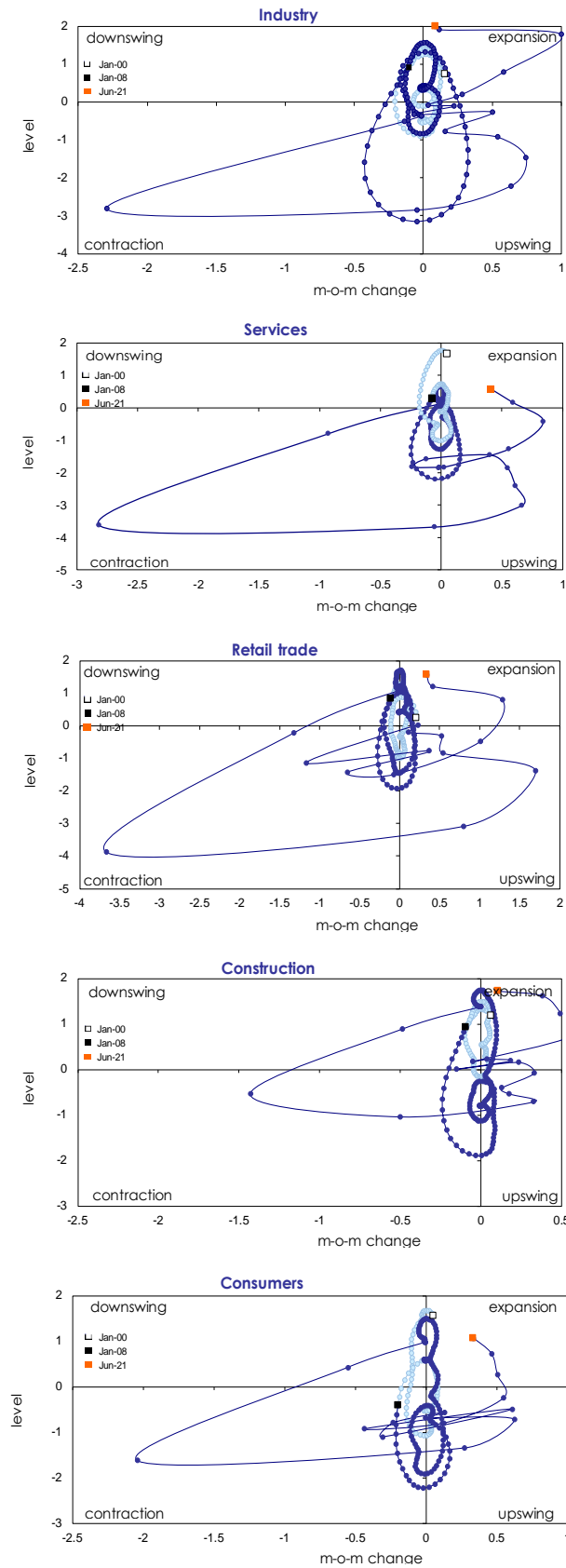
Graph 1.1.14: EU Climate Tracer



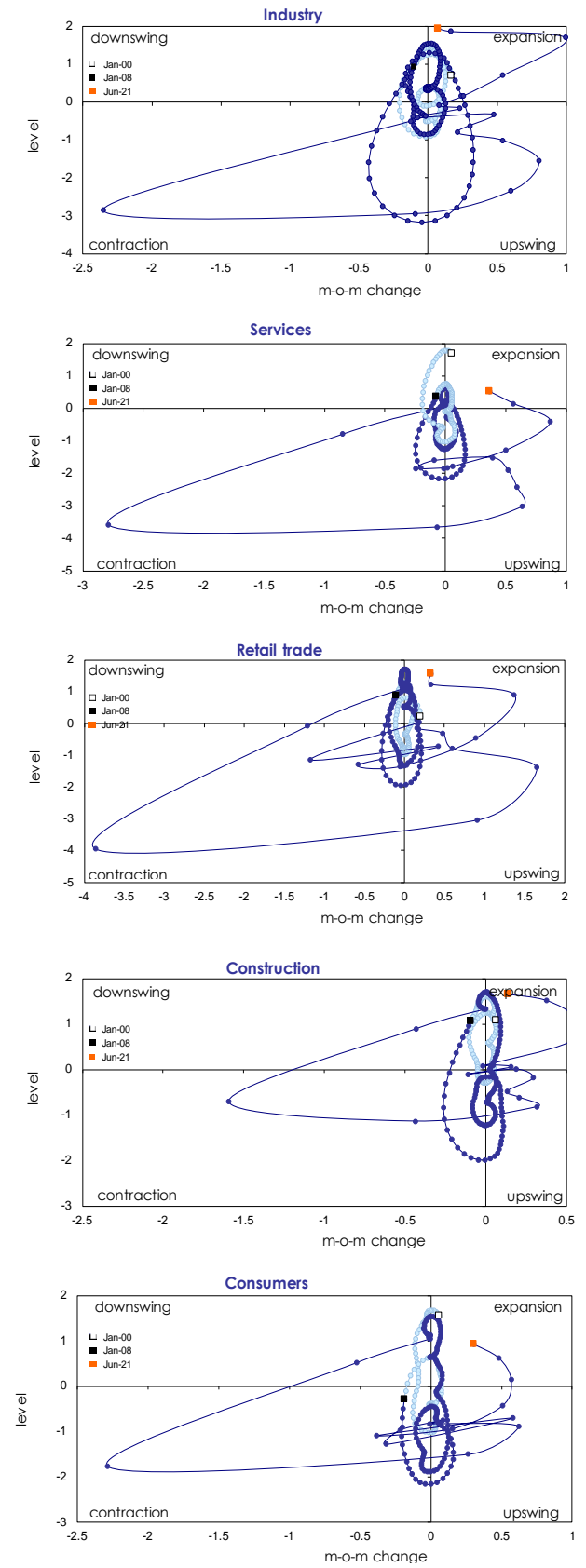
The EU/EA sectoral climate tracers (see Graph 1.1.15) all show a similar trend to that of the climate tracer for the ESI. The tracers for industry and construction moved deeper in the expansion area in April and point to the downswing border in May and June. The retail trade and consumer tracers entered the expansion quadrant in April and are moving in the direction of the downswing border. Finally, the services tracer only entered the expansion area in May and although it remains firmly in this area, it moved in the direction of the downswing quadrant in June.

Graph 1.1.15: Economic climate tracers across sectors

Euro area



EU



## 1.2. Selected Member States

At country level, the ESI surged in all of the six largest EU economies. The gains registered between March and June 2021 were strongest in Italy (+18.4), followed by Poland (+16.6), France (+16.0), the Netherlands (+15.8), Germany (+13.5) and Spain (+10.3).

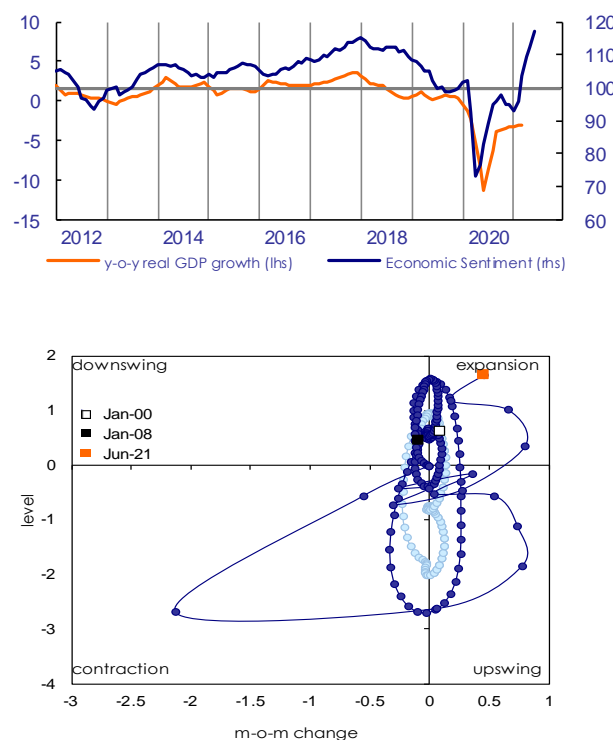
At 117.2 points in June, the ESI for Germany posted a fifth consecutive strong monthly increase, pushing the indicator up by 13.5 points compared to March. Just as the other 'big-6' countries, the indicator outstripped its long-term average, well above the level prevailing on the eve of the outbreak of COVID-19 on the continent.

The sentiment boost pushed the German climate tracer further up in the expansion quadrant (see Graph 1.2.1).

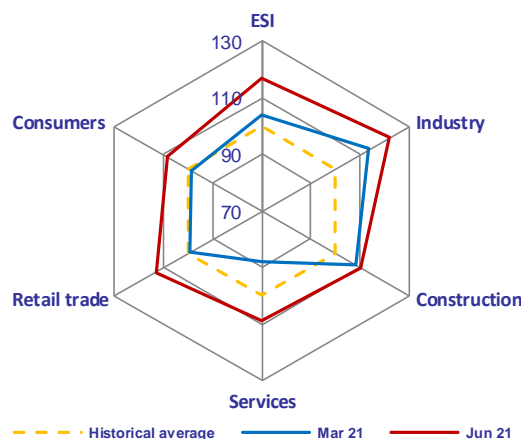
The Employment Expectations Indicator (EEI) followed the evolution of the ESI, gaining 12.3 points over the quarter, thanks to strong increases in all three months. Employment expectations increased sharply across all surveyed sectors (i.e. industry, services, retail trade and construction).

From a sectoral perspective, confidence in services stood out with its strongest quarterly increase on record, which brought the indicator to a 20-year high. Outstanding increases were also recorded in retail trade and industry, and to a lesser extent in construction. Consumer confidence rose markedly also. The level of confidence is above its long-term average in all sectors and among consumers.

Graph 1.2.1: Economic Sentiment Indicator and Climate Tracer for Germany



Graph 1.2.2: Radar Chart for Germany

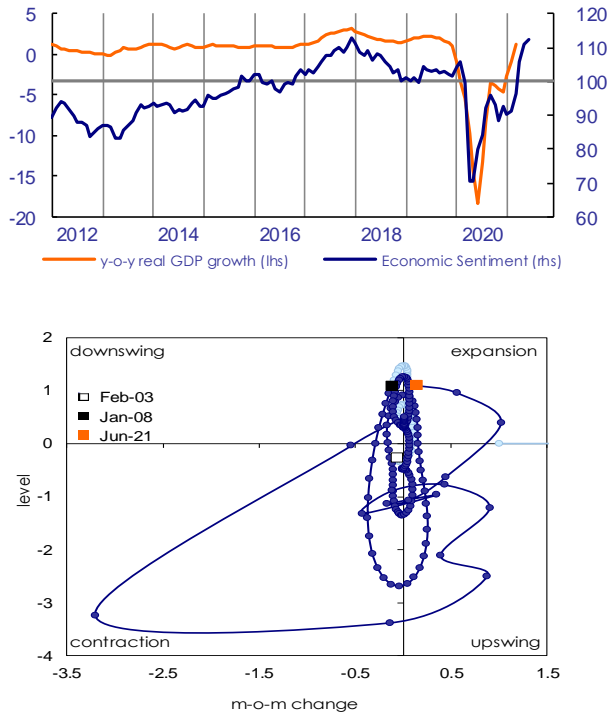


In June, the ESI for **France** continued its upward trend visible since February, though at a slower pace. Compared to March, the indicator finished the first quarter 16.0 points higher, at 112.2, back to its December 2017 level. The indicator has now fully recovered from the pandemic crisis and is well above its long-term average of 100.

The sentiment boost in April pushed the French climate tracer in the expansion area, now

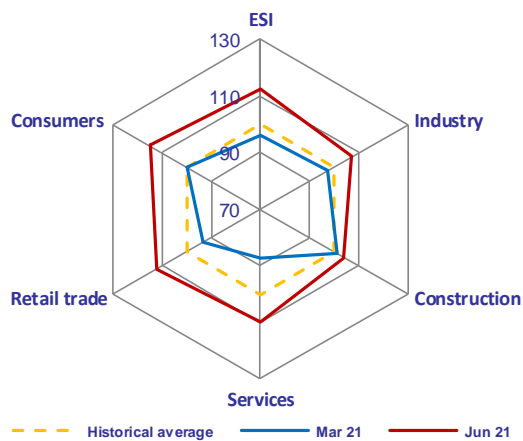
pointing to the downswing quadrant in June (see Graph 1.2.3).

**Graph 1.2.3: Economic Sentiment Indicator and Climate Tracer for France**



Thanks to significant increases in April and May, the French EEI improved again significantly in the second quarter (+10.5 points compared to March). The result reflects sharp improvements in managers' employment expectations in industry, services, construction and, to a lesser extent, retail trade.

**Graph 1.2.4: Radar Chart for France**



The French radar chart (see Graph 1.2.4) displays the most significant improvements in services and retail trade confidence. Sharp rises were also recorded in industry and construction and among consumers, though less marked in comparison. Considering the long-term averages of the indicators, the current level of confidence is high in all sectors and among consumers.

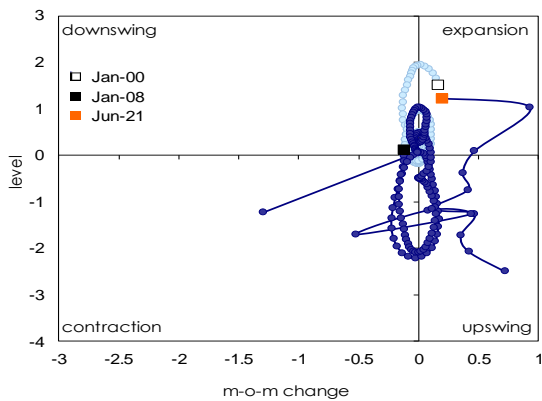
For the second time in a row, **Italy** posted the strongest quarterly improvement in sentiment of the six largest EU economies. Fuelled by a record high increase in April (+11.0 points), the ESI finished the second quarter 18.4 points above its March reading. At 117.9, it reached a level of confidence unseen since August 2000.

The confidence boost pushed the Italian climate tracer in the expansion quadrant in April, now moving to the downswing area in June (see Graph 1.2.5).

Over the second quarter, the Italian EEI improved further by 10.4 points compared to March, spurred by markedly improved employment expectations in services, retail trade and industry, as well as moderately better ones in construction.

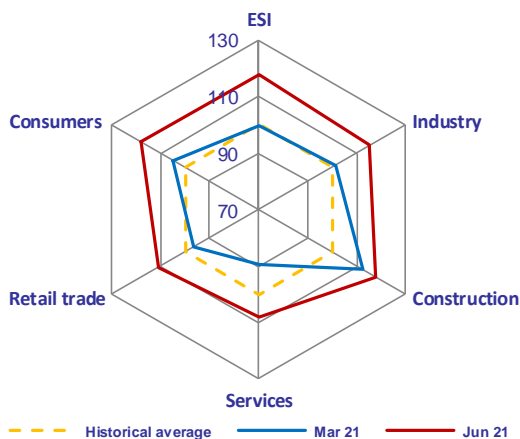


**Graph 1.2.5: Economic Sentiment Indicator and Climate Tracer for Italy**



From a sectoral perspective, confidence in services also stood out in the Italian radar chart (see Graph 1.2.6) with a striking quarterly increase, which brought the indicator to a level unseen since February 2018. Strong increases were also recorded in retail trade and industry, and to a lesser extent in construction. Consumer confidence also increased further. The level of confidence is above its long-term average in all surveyed sectors and among consumers.

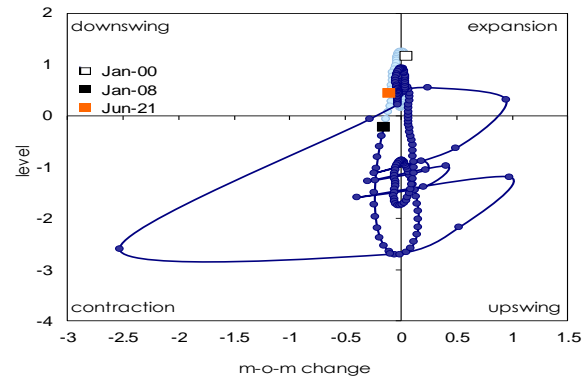
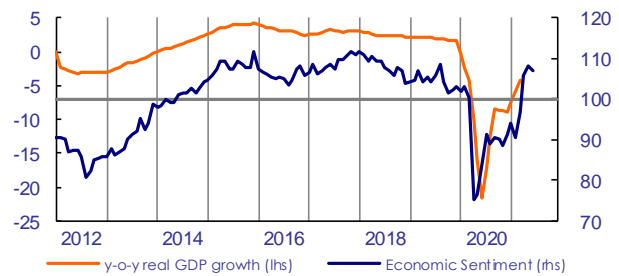
**Graph 1.2.6: Radar Chart for Italy**



Following a surge in April and a further increase in May, the ESI for **Spain** gained 10.3 points compared to March, despite the slight dip in June. At 107.2 points, the ESI has fully recovered the record losses incurred in spring 2020 and exceeded its pre-crisis level.

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

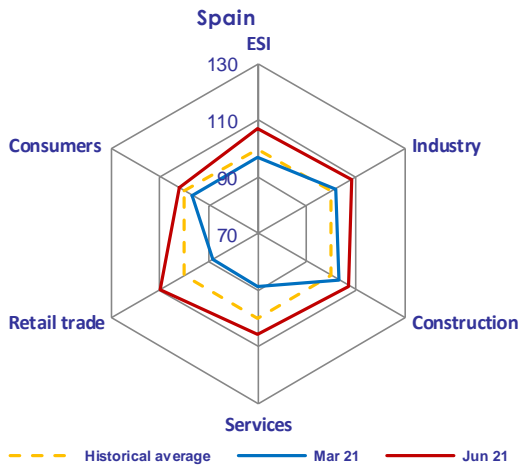
**Graph 1.2.7: Economic Sentiment Indicator and Climate Tracer for Spain**



Just like the ESI, the Spanish EEI strengthened significantly (+9.1 points in June compared to March). Managers' employment plans improved sharply in all surveyed sectors but most spectacularly in construction.

As shown in the radar chart (see Graph 1.2.8), confidence firmed in all surveyed sectors. The improvements were largest in retail trade and services, while smallest in construction. Compared to the respective long-term averages, confidence is at a high level in all business sectors, while it remains close to its long-term average among consumers.

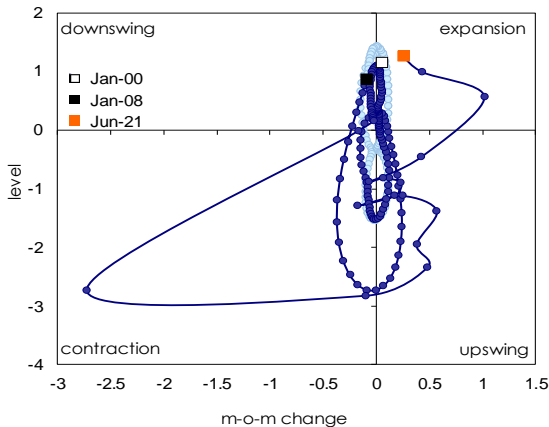
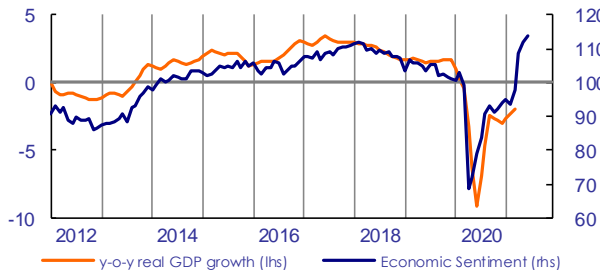
Graph 1.2.8: Radar Chart for Spain



After a record high increase in April and four consecutive months of rising, the ESI for the **Netherlands** recorded a 15.8 point gain compared to March. At 113.7 points, the indicator is at its highest level since August 2007.

The upbeat sentiment also showed in the Dutch climate tracer which has moved up into the expansion quadrant since April (see Graph 1.2.9).

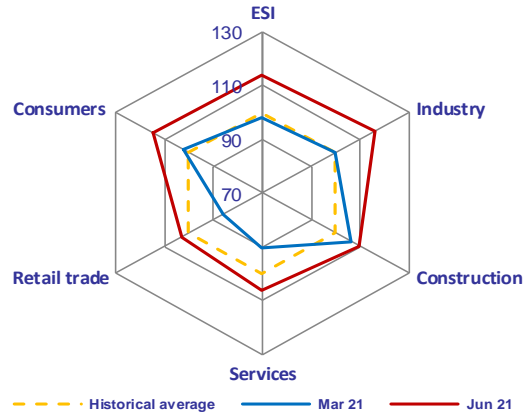
Graph 1.2.9: Economic Sentiment Indicator and Climate Tracer for the Netherlands



The Dutch EEI gained 12.8 points on the quarter, as managers' employment expectations improved markedly in all surveyed sectors.

As shown in the radar chart (see Graph 1.2.10), sentiment brightened markedly in all surveyed sectors and among consumers. Confidence is now well above its long-term average across all surveyed sectors and among consumers.

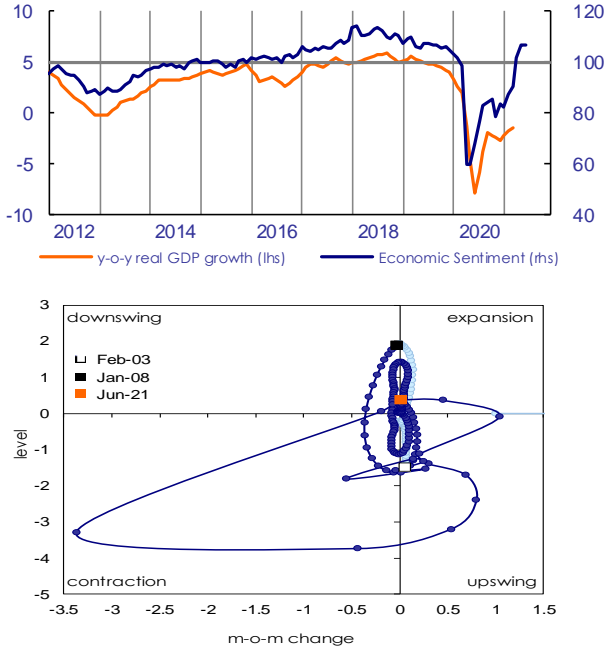
Graph 1.2.10: Radar Chart for the Netherlands



The surge in managers' and consumers' confidence in April lifted the ESI in **Poland** 16.6 points above the indicator's reading in March. At 106.9 points, the ESI has fully recovered from its 2020 losses and is now well above its long-term average of 100.

The Polish climate tracer entered the expansion area in May but moved to the border of the downswing area in June (see Graph 1.2.11).

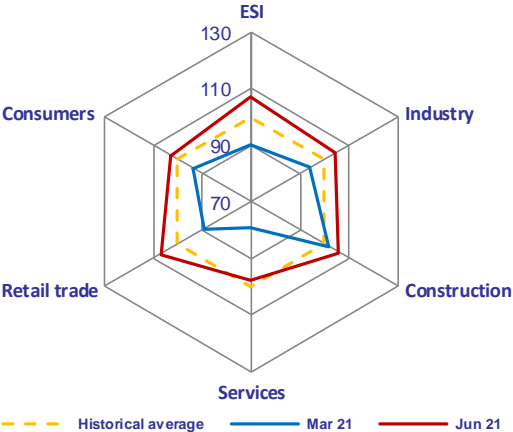
**Graph 1.2.11: Economic Sentiment Indicator and Climate Tracer for Poland**



The Polish EEI picked up by 7.0 points over the second quarter. Managers from all surveyed sectors revised their employment expectations upwards.

As shown in the radar chart (see Graph 1.2.12), the surge in ESI was fuelled by positive signals from all surveyed sectors in the first quarter. Only in the services sector does the level of confidence still remain below its long-term average. In industry, retail trade, construction and among consumers, confidence has now outstripped its historical mean.

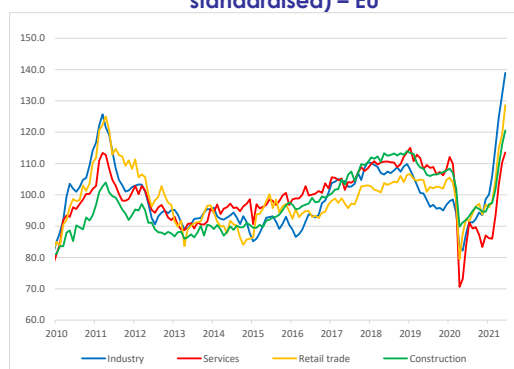
**Graph 1.2.12: Radar Chart for Poland**



## 2. SPECIAL TOPIC: MANAGERS' AND CONSUMERS' PRICE EXPECTATIONS ON THE RISE

Since the beginning of the year, rapidly rising consumer inflation and bottlenecks at different stages of the production chain amid increasing commodity prices and booming demand have risen the question whether price pressures may eventually feed more strongly or persistently into consumer prices. This Special Topic looks at the results from the European Commission's monthly surveys on managers' and consumers' price expectations, which can provide additional information about potential further price pressure.<sup>3</sup>

**Graph 2.1: Selling-price expectations (% balances standardised) – EU**



### Developments in managers' selling price expectations

Managers' selling price expectations are on an upward trend across all surveyed business sectors (see Graph 2.1). In industry, this trend was already visible in the final quarter of 2020. Accelerating since February 2021, the indicator reached an all-time high in June. This suggests that the sharp rise in industrial producer prices<sup>4</sup> observed since the beginning of the year is set to continue. Marked increases in selling price expectations among industry managers were reported in the six largest EU Member States. Selling price expectations in construction and retail trade also rose markedly in the EU, largely driven by a strong increase in Germany, and are now well above their respective pre-crisis levels. In services, selling price expectations started to rise steeply in March and are now standing at their pre-crisis level. Disregarding some monthly volatility, the increase was broad-based across the six largest EU Member States.

Surging assessments of selling prices are also reflected in IHS Markit's PMI results for EU output prices<sup>5</sup> in manufacturing and services, as well as euro-area input prices for construction<sup>6</sup>.

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<sup>3</sup> The question on selling price expectations asked in all business sectors (i.e. industry, services, retail trade and construction) reads "How do you expect your selling prices to change over the next 3 months? They will increase, remain unchanged or decrease". The questions on consumers' price perceptions and expectations are as follows: "How do you think that consumer prices have developed (will develop) over the last (next) 12 months? They have risen a lot (will increase more rapidly) /risen moderately (will increase at the same rate)/risen slightly (will increase at a slower rate)/stayed about the same (will stay about the same)/fallen (will fall).

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<sup>4</sup> The last available data for producer prices in manufacturing in the EU as measured by Eurostat points to a year-on-year growth rate of 5.8% in May 2021.

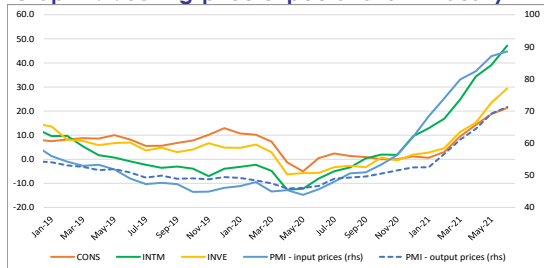
<sup>5</sup> PMI questions inquire about current prices compared to the previous month.

<sup>6</sup> For construction, the PMI price index is available only for input prices in the euro area.

## A strong increase for industrial intermediate goods

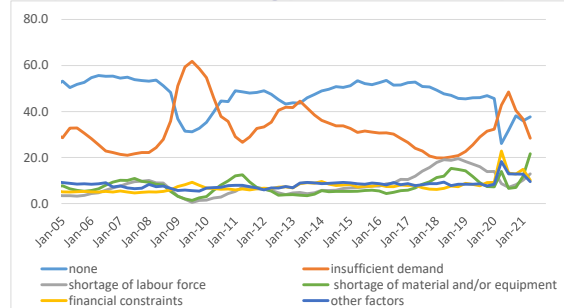
Increases in selling price expectations in industry are broad-based across subsectors, but are particularly strong for intermediate goods, and especially in the manufacture of wood, paper, rubber and plastic products, and basic metals.<sup>7</sup> In line with the reading of PMI's industrial input price indicator, this points to price pressures coming from the early stages of the production chain, feeding into the production of consumer and investment goods and into different sectors of activity, including construction (see Graph 2.2).

**Graph 2.2: Selling-price expectations in industry – EU**



Managers' reported intention to charge higher prices may be related to cost factors (i.e. the recent surge in shipping costs and the increase in commodity prices) or the result of bottlenecks in upstream segments of global supply chains (e.g. shortage of semiconductors globally, construction materials in the US, electricity shortages in China) and, more broadly, stronger demand. In the Commission's business surveys, managers express increasing concern about the shortage of material/equipment as the main factor limiting production (see Graph 2.3).

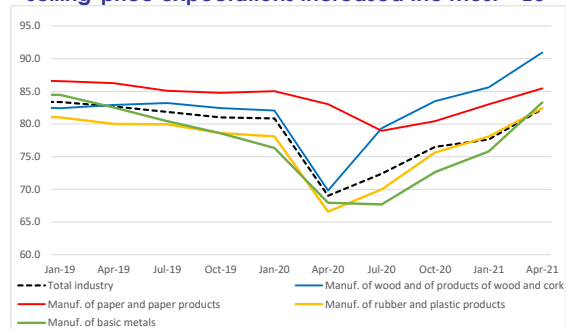
**Graph 2.3: Factors limiting production in industry – EU**



*Note: results from quarterly surveys carried out in January, April, July and October.*

A number of other indicators from the industry surveys are indicative of price pressures due to high demand. In April, production expectations reached an all-time high and reported capacity utilisation rates recovered to pre-crisis levels - or well above those levels in certain sub-sectors such as the manufacture of basic metals, rubber and plastic products and, in particular, wood (Graph 2.4). Moreover, the percentage of managers assessing their current order books as more than sufficient (above normal) has been increasing even in subsectors that are currently reporting lower than pre-crisis capacity utilisation levels. This suggests that demand pressure should remain strong in the coming months. Finally, managers' assessment of their stock of finished products has reached an all-time low in June 2021, suggesting a role for both demand and supply factors in shaping future price developments.

**Graph 2.4: Capacity utilisation (%) – total industry and in the intermediate goods sub-sectors where selling-price expectations increased the most – EU**



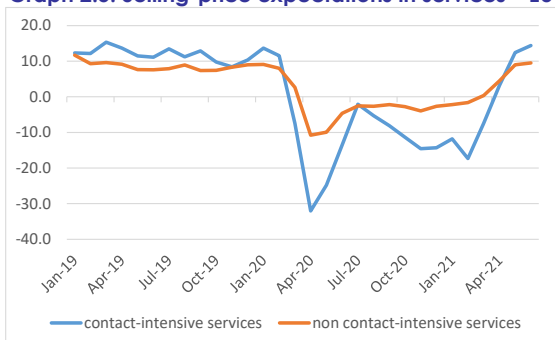
*Note: results from quarterly surveys carried out in January, April, July and October.*

<sup>7</sup> Corresponding to the sectors 16, 17, 22 and 24 of the NACE Rev. 2 classification of activities.

## Developments in the services sector

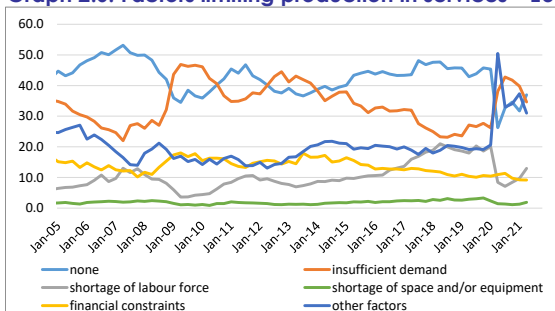
The striking increase in selling price expectations in services registered over the last four months was driven by contact-intensive services such as accommodation, restaurants, and travel-related services, which started re-opening only recently (Graph 2.5). Managers in these particularly affected activities had revised their selling price expectations sharply downwards in the two lockdown periods of spring 2020 and last autumn/winter. As the restrictions started being lifted, managers' selling price expectations have been on the rise, as had been the case in spring/summer 2020 after the first lockdown. Overall, they are now broadly at pre-crisis levels in both contact and non-contact intensive services activities.

**Graph 2.5: Selling-price expectations in services – EU**



As regards factors limiting business activity, services managers do not currently signal shortage of space or equipment (see Graph 2.6).

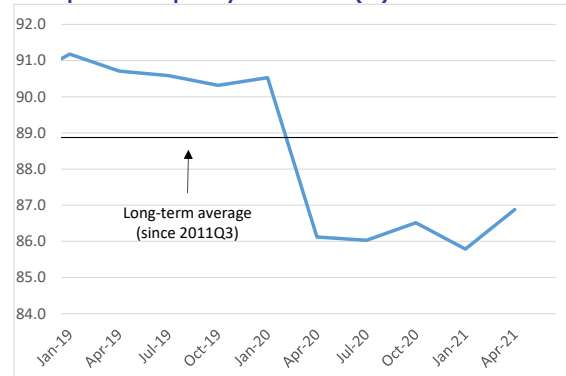
**Graph 2.6: Factors limiting production in services – EU**



*Note: results from quarterly surveys carried out in January, April, July and October.*

Despite the uptick in labour as a limiting factor in April<sup>8</sup>, the percentage of managers reporting labour shortages is still well below the pre-crisis level. Similarly, while capacity utilisation<sup>9</sup> in the services sector started to recover at the beginning of the year, it is still well below both its pre-crisis level and long-term average (see Graph 2.7).

**Graph 2.7: Capacity Utilisation<sup>6</sup> (%) in services – EU**



*Note: results from quarterly surveys carried out in January, April, July and October.*

However, demand expectations have been increasing since March, bringing the indicator above its pre-crisis level. In June, a clear majority of managers expected an increase in demand for the coming months, which could indicate further pressure on prices going forward.

## Developments in the retail trade and construction sectors

Selling price expectations in construction and retail trade have significantly increased since April, driven by a surge in Germany. In construction, this appears to be the result of raw material shortages, especially in Germany. Unlike in other sectors, managers in the construction sector do not expect a

<sup>8</sup> April was the last time the quarterly questions (on factors limiting business and capacity utilisation) were included in the surveys.

<sup>9</sup> In the services sector survey, managers are asked whether the volume of activity of their business could be increased with present resources and, if so, by how much. The replies to this question are used to calculate a measure of capacity utilisation as follows:

$$CU = \frac{1}{1 + (\text{percentage of increase})}$$

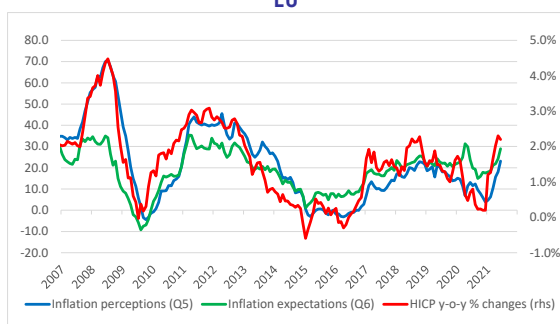
large increase in demand and report past demand as still below its pre-crisis level.

By contrast, in retail trade, increasing selling price expectations appear to be mainly due to returning demand. As COVID-restrictions are being lifted, retailers assess their past business activity as back on track and expect further improvement in the coming months.

## Developments in consumers' price perceptions and expectations

Data from the Commission's consumer surveys show that consumers' inflation perceptions and expectations have been on an upward trend since the beginning of the year (see Graph 2.8), broadly mirroring HICP developments. In June, both consumer price perceptions and expectations were above their pre-crisis levels.

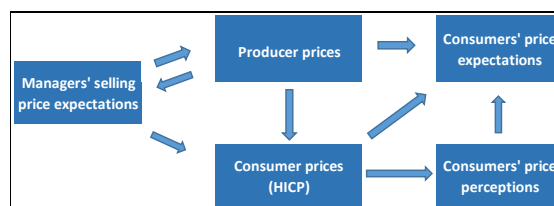
**Graph 2.8: HICP (annual percentage change) and consumers' inflation perceptions and expectations – EU**



## Leading indications for producer prices and consumer prices (HICP)

While there is a clear visual co-movement between qualitative survey data on perceived and expected price developments and official price statistics data, the question is to what extent businesses' selling price expectations can detect price pressure at an early stage of price formation and whether selling price expectations and/or consumer price perceptions and expectations could be a bellwether of HICP inflation, and hence signal possible pressure on consumer prices during the post-Covid reopening phase (see Graph 2.9).

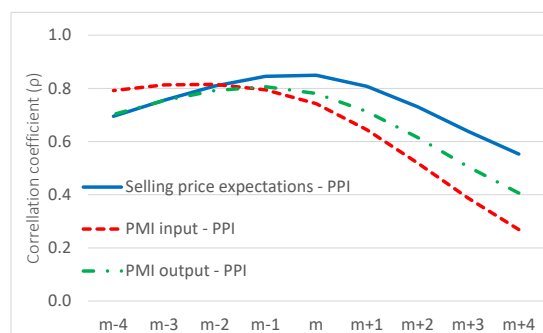
**Graph 2.9: Possible spillover effects of a change in managers' selling-price expectations**



Being released at the end of each month, managers' selling price expectations for the coming three months provide early information on producer price developments, which are released by Eurostat with a publication lag of slightly over a month.

In particular in the manufacturing sector, selling price expectations are highly correlated with producer prices (see Graph 2.10). The highest correlation is reached with coincident producer prices, but the correlation is virtually identically high with producer prices one month ahead. By way of comparison, PMI output and input prices show slightly lower correlations, albeit with a lead of around 2 months with respect to producer prices.

**Graph 2.10: Correlation between producer prices and survey data on prices<sup>10</sup> in manufacturing – Jan 2001 to May 2021 – EU**



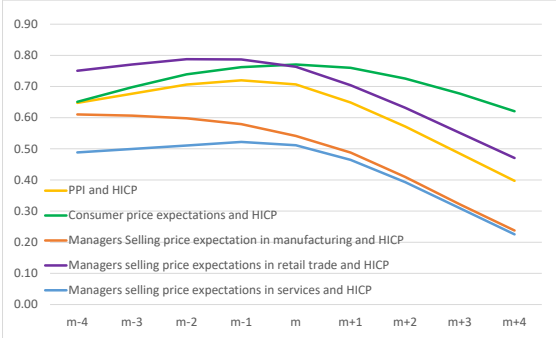
Note: on the x-axis, "m" represents a coincident relationship between the variables, "m+1" a one month lag of survey information and "m-1" a one month lead.

Selling price expectations, especially in the retail trade sector, are also highly correlated with HICP inflation (year-on-year percentage

<sup>10</sup> Correlations were calculated between the year-on-year % changes of 'Manufacturing PPI', and EC 'Selling price expectations in industry' and PMI input and output prices in industry.

change) and appear to be slightly leading (Graph 2.11). The graph also shows that while producer prices are slightly leading HICP inflation by one month, correlation between the two series is only at about 70%. Finally, correlation between consumers' price expectations and HICP is somewhat below 80% and pointing to a broadly coincident statistical relationship.

**Graph 2.11: Correlation between year-on-year % change of HICP with PPI and EC price expectations – Jan 2001 to May 2021 – EU**

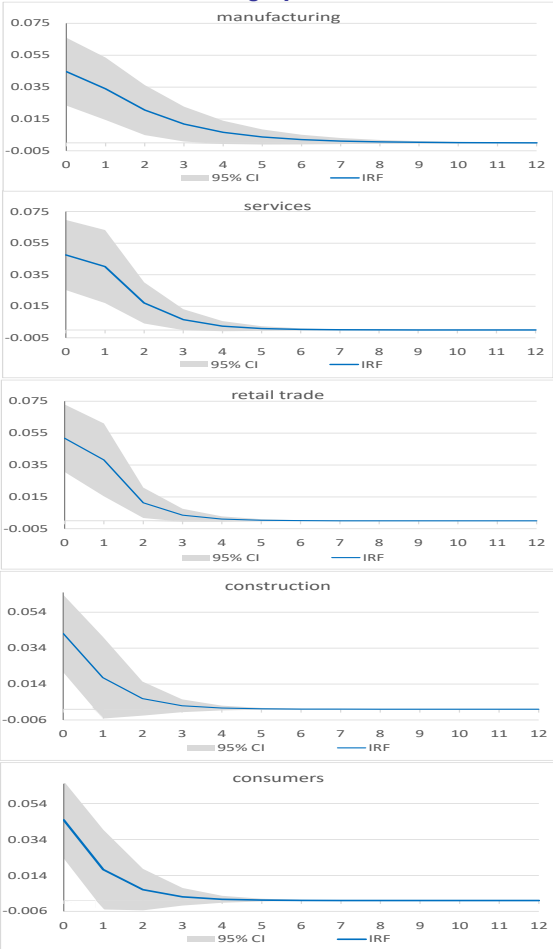


Note: see Graph 2.10

To investigate the relationship between survey data and euro-area inflation further, a simple modelling exercise using bivariate vector autoregressions was carried out over the period January 2002 - June 2021. Results suggest that shocks to manufacturing, retail trade and services selling price expectations have transitory effects on headline inflation that dissipate after 2 to 3 months, but leaving a lasting effect on the price level (see Graph 2.12).

Conversely, shocks to selling price expectations in the construction sector and to consumers' price expectations have a very limited impact on HICP, dissipating already after one month.

**Graph 2.12: Impact of a shock of 1STD in selling price expectations<sup>11</sup> on HICP (month-on-month % changes) – EA<sup>12</sup>**



Despite the significant impact that shocks to survey information on prices can have on headline inflation according to the model results presented above, simple bivariate regressions fail to show significant forecast improvements of HICP inflation due to the inclusion of selling price expectations

<sup>11</sup> The graph shows impulse response functions (IRF) and 95% confidence intervals (CI) of a bivariate vector autoregressive model including headline inflation and selling price expectations in a particular sector. More specifically, it depicts the response of monthly inflation to a 1SD shock to the month-on-month change in managers' selling price expectations, identified via timing restrictions.

<sup>12</sup> The impact analysis was carried out on euro-area seasonally adjusted series in order to avoid any exchange rate interference and to compare it with survey data that are seasonally adjusted.



compared to autoregressive models of HICP inflation.<sup>13</sup>

Overall, selling and consumer price expectations are highly correlated with HICP inflation and shocks to managers' selling price expectations in industry, services and retail trade have a statistically significant impact on consumer prices in the short-term. However, survey data generally appears to carry limited additional information about future developments in year-on-year HICP inflation.

It is important to note that in the context of the COVID crisis and its unprecedented economic impact, past relationships may not be an appropriate benchmark. The dramatic changes reported by the surveys may however provide important indication of further pressure on consumer prices ahead and therefore warrant careful monitoring.

## Conclusions

This Special Topic takes a look at selling and consumer price expectations up to June 2021 and assesses their possible impact on consumer inflation.

Since the beginning of the year, managers' selling price expectations for the next three months have been on an upward trend across all surveyed sectors. Consumers' inflation perceptions and expectations have also been on an upward trend over the same period, and are now above their respective pre-crisis levels.

Upside pressure on prices appears to be a response to shortage of material/equipment and broad demand pressures, as highlighted

by increasing capacity utilisation and orders and low levels of stocks. However, in the services sector, survey results suggest that price pressure remained overall contained in June. Still, with demand returning forcefully to certain contact-intensive services after a protracted standstill, shortage of labour may temporarily push up prices in contact-intensive activities further.

Statistical analysis suggests that the recent surge in selling price expectations could translate into further price pressures in the near future for products sold by the surveyed managers – either at intermediate or final level. Selling price expectations historically barely seem to improve the forecasts for consumer inflation compared to a simple autoregressive model, but under the current exceptional circumstances, they may provide important indications of further pressure on consumer prices and therefore should be carefully monitored.

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<sup>13</sup> The correlation between year-on-year HICP inflation at time  $t$  and at time  $t-1$  is very high (around 0.96), which explains why it is challenging to beat an autoregressive (AR) model of inflation. Evidence provided in Radde, S.: *From Supply to Price Pressures—A Flashing PMI Signal?*, Goldman Sachs European Daily, 28 May 2021, on forecasting *month-on-month* inflation using PMI indicators points to a better performance of survey data on prices in short-term inflation forecasting.

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