

**Slight Improvement in Economic Sentiment  
at the Beginning of the Year.** Results of the  
WIFO-Konjunkturtest Quarterly Survey  
of January 2023

Werner Hölzl, Jürgen Bierbaumer, Michael Klien,  
Agnes Kügler

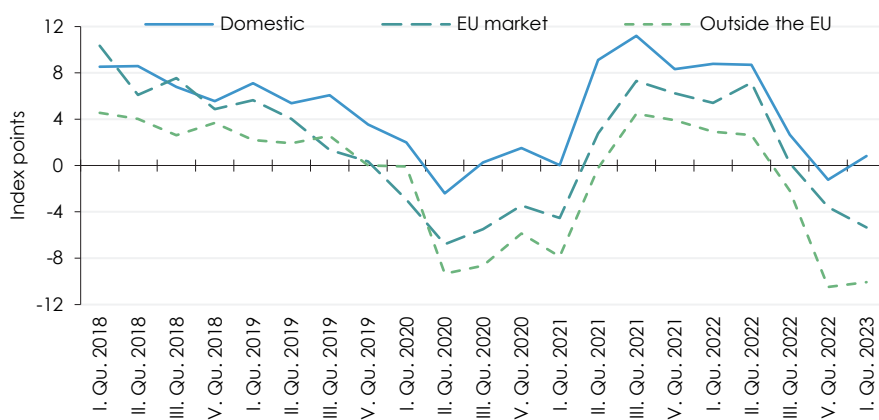
# Slight Improvement in Economic Sentiment at the Beginning of the Year

## Results of the WIFO-Konjunkturtest Quarterly Survey of January 2023

Werner Hölzl, Jürgen Bierbaumer, Michael Klien, Agnes Kügler

- Domestic companies were somewhat more confident about the economic situation in January than they were in October 2022. The WIFO-Konjunkturampel (economic traffic light) shows green accordingly.
- The index of business expectations remained negative in manufacturing and retail trade despite improvements. It declined in construction.
- Although business uncertainty has decreased, it is still high and signals significant economic risks.
- Capacity utilisation was 88.9 percent in the economy in January, and roughly in line with the long-term average in all sectors.
- As in the previous quarters, most companies reported impairments to their business activities. In the total economy, "shortage of labour force" remained the most important constraint, well ahead of "insufficient demand" and "shortage of materials and/or equipment".
- Despite declining momentum, the majority of companies still expect to have to raise sales prices further in the coming months.

### Change in competitive position in manufacturing



**"Companies' self-assessment of their competitive position in the surveys has deteriorated since summer 2022, especially in markets outside the EU".**

The change in the competitive position is shown by means of balances: the share of companies that reported an improvement in their competitive position in the last three months is subtracted from the share of companies that reported a deterioration in their competitive position (source: WIFO-Konjunkturtest (business cycle survey), seasonally adjusted).

# Slight Improvement in Economic Sentiment at the Beginning of the Year

## Results of the WIFO-Konjunkturtest Quarterly Survey of January 2023

Werner Hölzl, Jürgen Bierbaumer, Michael Klien, Agnes Kügler

February 2023

### Slight Improvement in Economic Sentiment at the Beginning of the Year. Results of the WIFO-Konjunkturtest Quarterly Survey of January 2023

The results of the WIFO-Konjunkturtest (business cycle survey) in January show a slight improvement in economic assessments compared with the previous quarter. However, economic expectations remained subdued in all sectors. Capacity utilisation stayed at an average level. In the aggregate economy, as in the previous quarters, the "shortage of labour force" was the most important obstacle to business activity, with "insufficient demand" continuing to gain slightly in importance. Although business uncertainty has decreased, it is still high and reflects considerable economic risks. Despite declines, sale price expectations also remained above average.

**JEL-Codes:** E32, E66 • **Keywords:** WIFO-Konjunkturtest (business cycle survey), quarterly data, business cycle

**Scientific referee:** Marcus Scheiblecker • **Research assistance:** Birgit Agnezy ([birgit.agnezy@wifo.ac.at](mailto:birgit.agnezy@wifo.ac.at)), Tobias Bergsmann ([tobias.bergsmann@wifo.ac.at](mailto:tobias.bergsmann@wifo.ac.at)), Alexandros Charos ([alexandros.charos@wifo.ac.at](mailto:alexandros.charos@wifo.ac.at)), Tim Slickers ([tim.slickers@wifo.ac.at](mailto:tim.slickers@wifo.ac.at)) •

**Cut-off date:** 2 February 2023

**Contact:** Werner Hölzl ([werner.hoelzl@wifo.ac.at](mailto:werner.hoelzl@wifo.ac.at)), Jürgen Bierbaumer ([juergen.bierbaumer@wifo.ac.at](mailto:juergen.bierbaumer@wifo.ac.at)), Michael Klien ([michael.klein@wifo.ac.at](mailto:michael.klein@wifo.ac.at)), Agnes Kügler ([agnes.kuegler@wifo.ac.at](mailto:agnes.kuegler@wifo.ac.at))

**Imprint:** Publisher: Gabriel Felbermayr • Editor-in-Chief: Hans Pitlik ([hans.pitlik@wifo.ac.at](mailto:hans.pitlik@wifo.ac.at)) • Editorial team: Tamara Fellingner, Christoph Lorenz, Tatjana Weber • Media owner (publisher), producer: Austrian Institute of Economic Research • 1030 Vienna, Arsenal, Objekt 20 • Tel. (+43 1) 798 26 01-0, <https://reportsonaustria.wifo.ac.at/> • Place of publishing and production: Vienna • 2021/RoA/7496

© Austrian Institute of Economic Research 2023

## 1. Economic indices

The results of the WIFO-Konjunkturtest (business cycle survey)<sup>1</sup> for January 2023 (beginning of the first quarter) show a slight improvement in companies' economic assessments. The WIFO Business Climate Index rose by 3.5 points quarter-on-quarter to 6.4 points and was thus around 6.6 points lower than in January of the previous year (Table 1). The assessments of the current situation improved by 3.7 points compared to October, the corresponding index at 11.5 points was still above the zero line that separates negative from positive economic assessments. Economic expectations, on the other hand,

remained sceptical: although the index of business expectations improved by 3.3 points compared to October, it was barely in positive territory with 1.2 points.

In quarterly comparison, a slight improvement in sentiment can be seen in all sectors except construction: in manufacturing, the WIFO Business Climate Index gained 0.9 points compared to the previous quarter, but remained in negative territory at -1.3 points. The index of current business situation deteriorated by 3.2 points compared to October, but remained in positive

**Economic sentiment improved quarter-on-quarter in all sectors except construction. Economic expectations remained subdued due to the still significant risks.**

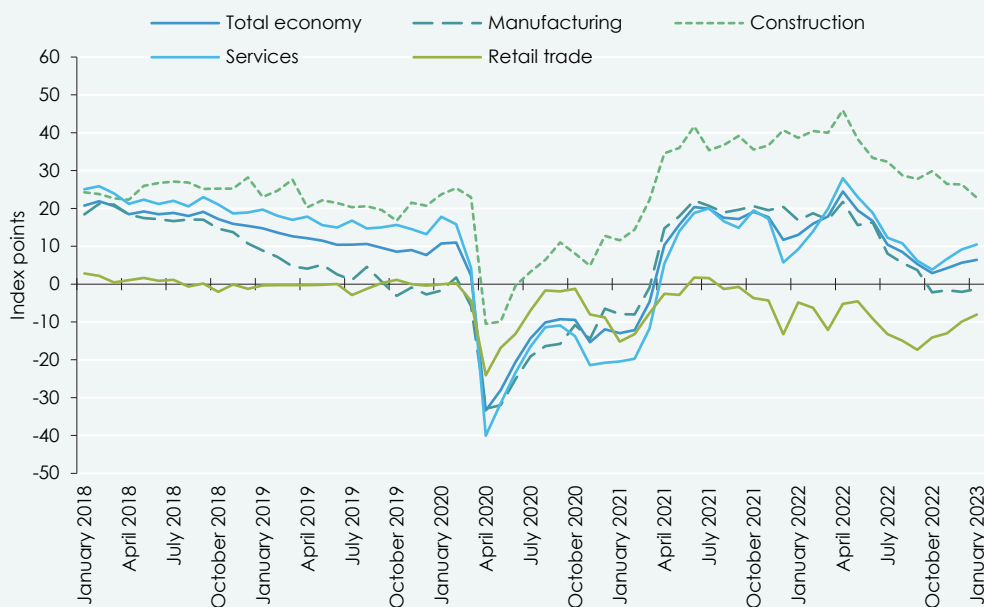
<sup>1</sup> The WIFO-Konjunkturtest (business cycle survey) is a monthly survey of Austrian companies on their current economic situation and the development in the coming months. Once a quarter, the questionnaire of the WIFO-Konjunkturtest is extended by additional questions ("quarterly questions"), which provide relevant information on the business cycle but are not included in the monthly indices of the WIFO-Konjunkturtest. The current results of the WIFO-Konjunkturtest (business cycle survey) are available on the WIFO website (<https://www.wifo.ac.at/en/publications/wifo-konjunkturtest/>)

[konjunkturtest](https://www.wifo.ac.at/en/research-priorities/business-cycle-and-forecasting-or-wifo-konjunkturtest-at)) and on the business cycle analysis page at WIFO (<https://www.wifo.ac.at/en/research-priorities/business-cycle-and-forecasting-or-wifo-konjunkturtest-at>). Hölzl and Schwarz (2014) provide an overview of the WIFO-Konjunkturtest (business cycle survey). Detailed results on the sub-sectors of manufacturing and services can be downloaded as a graphical appendix from the project homepage (<https://www.wifo.ac.at/en/research-priorities/wifo-konjunkturtest/publications>).

territory with 2.6 points. Despite an improvement of 4.8 points, the index of business expectations remained below the zero line

separating optimistic from pessimistic expectations (-5.3 points).

Figure 1: WIFO Business Climate Indices



Source: WIFO-Konjunkturtest (business cycle survey), seasonally adjusted.

Table 1: Indices of the WIFO-Konjunkturtest (business cycle survey)

	2022							January	January Change compared to October (previous quarter)
	January	April	July	October	November	December	Index points		
<b>Total economy</b>									
WIFO Business Climate Index	13.0	24.5	10.4	2.9	4.2	5.7	6.4	+ 3.5	
Index of current business situation	14.0	27.4	16.7	7.8	7.5	10.4	11.5	+ 3.7	
Index of business expectations	12.0	21.7	4.2	- 2.0	1.0	0.9	1.2	+ 3.3	
<b>Manufacturing</b>									
WIFO Business Climate Index	16.8	21.7	8.1	- 2.2	- 1.6	- 2.0	- 1.3	+ 0.9	
Index of current business situation	18.6	26.9	15.8	5.8	4.1	3.9	2.6	- 3.2	
Index of business expectations	15.1	16.7	0.4	- 10.1	- 7.3	- 8.1	- 5.3	+ 4.8	
<b>Construction</b>									
WIFO Business Climate Index	38.6	46.0	32.3	29.8	26.5	26.3	22.8	- 7.0	
Index of current business situation	41.2	45.8	28.6	23.6	17.5	19.6	17.8	- 5.8	
Index of business expectations	36.2	46.3	36.2	35.9	35.2	33.0	27.4	- 8.5	
<b>Services sector</b>									
WIFO Business Climate Index	9.2	28.0	12.2	3.8	6.7	9.2	10.5	+ 6.6	
Index of current business situation	9.4	31.0	20.0	8.9	10.1	14.9	17.2	+ 8.3	
Index of business expectations	9.1	25.1	4.5	- 1.2	3.3	3.4	3.6	+ 4.9	
<b>Retail trade</b>									
WIFO Business Climate Index	- 4.8	- 5.2	- 13.2	- 14.1	- 13.0	- 9.9	- 8.0	+ 6.1	
Index of current business situation	- 3.1	- 7.3	- 8.1	- 8.2	- 6.1	- 2.7	2.2	+ 10.4	
Index of business expectations	- 6.5	- 3.2	- 18.3	- 20.0	- 19.9	- 17.1	- 18.3	+ 1.7	

Source: WIFO-Konjunkturtest (business cycle survey).

In the construction sector, the WIFO Business Climate Index deteriorated compared to October (-7.0 points to 22.8 points). The index of current business situation dropped by 5.8 to 17.8 points, the index of business expectations fell somewhat more sharply by 8.5 to 27.4 points. However, the expectations index also reflects the still high construction price expectations, which currently allow few conclusions to be drawn about the business cycle – the business situation in the next six months has already been assessed as unfavourable by the majority since May 2022.

In the services sector, the indices improved. The WIFO Business Climate Index increased by 6.6 points compared to October 2022 and was again more clearly in positive territory at 10.5 points. The index of current business situation improved by 8.3 points quarter-on-quarter to 17.2 points. The index of business expectations gained 4.9 points compared to October and was again just above the zero line at 3.6 points.

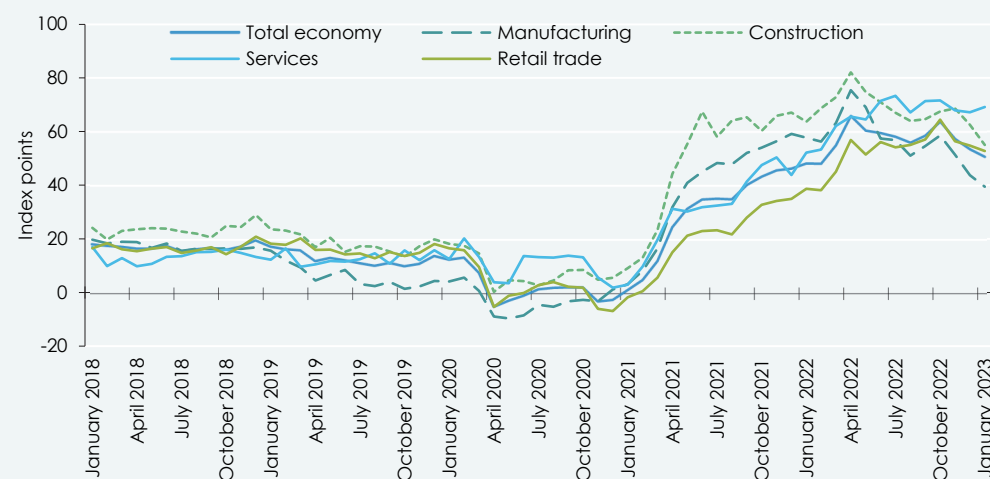
The business climate indices for the retail trade, which WIFO calculates on the basis of surveys by the Austrian Institute for SME

Research, improved noticeably compared to the previous quarter: the corresponding WIFO Business Climate Index in January was 6.1 points above the value of October, but remained below the zero line (-8.0 points). This is mainly due to the still pessimistic expectations: while the index of current business situation rose strongly (+10.4 points to 2.2 points), the index of business expectations improved only slightly by 1.7 points to -18.3 points. It thus remained at a very low level even for the retail trade.

A longer-term view of the WIFO Business Climate Indices shows the decline because of the COVID-19 crisis, the upswing in the course of 2021 and the gradual economic slowdown since the outbreak of the Ukraine war (Figure 1).

The Ukraine war triggered a sharp rise in energy prices, which in addition to consumer prices also increased the sales price expectations of Austrian companies<sup>2</sup>. The latter had already risen in 2021 during the economic recovery and as a result of supply bottlenecks. The Ukraine war has further accelerated the high price dynamics.

Figure 2: Sales price expectations



Source: WIFO-Konjunkturtest (business cycle survey), seasonally adjusted. Sales price expectations are presented as balances: The share of companies planning to raise their sales prices in the coming months is subtracted from the share of companies indicating that they will have to raise their sales prices in the coming months.

Sales price expectations are presented in the WIFO-Konjunkturtest (business cycle survey) as balances, i.e. as the difference between the share of positive and the share of negative responses in all responses. They have a value range of -100 to +100 points. As the results from January 2023 show, a majority of the companies surveyed expect to

have to raise sales prices in the coming months (Figure 2). For the total economy, the balance of sales price expectations was most recently 50.6 points. Although this value is 13.1 points below the October 2022 level, it is still well above the long-term average of 20.2 points. Although declines were recorded in all sub-sectors (construction

<sup>2</sup> The results of the special surveys conducted as part of the WIFO-Konjunkturtest (business cycle survey) (Hölzl et al., 2022a, 2022b) provide more insight into the effects of the Ukraine war and the rise in energy

prices. The majority of Austrian companies (82 percent) reported in November that their business activity is currently impaired, especially by increased energy and intermediate input prices.

–12.5 points to 55.0 points, manufacturing –19.1 points to 39.4 points, services –11.7 points to 52.8 points, retail

trade –2.5 points to 69.2 points), sales price expectations remained above average in all sectors in a long-term comparison.

### Indices of the WIFO-Konjunkturtest (business cycle survey)

The indices of the WIFO-Konjunkturtest (business cycle survey) are calculated monthly at sector level for manufacturing, construction, services, and retail trade. The surveys are conducted monthly by WIFO (manufacturing, construction, and services) and the Austrian Institute for SME Research (retail trade). Based on the sector indices, the "total economy indices" are calculated by weighting (weights: services 0.5, manufacturing 0.3, construction and retail trade 0.1 each). The summary WIFO Business Climate Index aggregates two sub-indices, which are shown separately:

- The index of current business situation is based on the monthly surveys on the assessment of the current situation and the development in the last three months. It is designed as a concurrent index, which is ahead of the official short-term statistics solely due to its early availability (about two months before the current data of the official statistics).
- The index of business expectations summarises those monthly questions that refer to the development in the following months of the survey. It is designed as a leading indicator.

Details on the indices are provided by Hölzl and Schwarz (2014).

## 2. Economic traffic light jumps to green

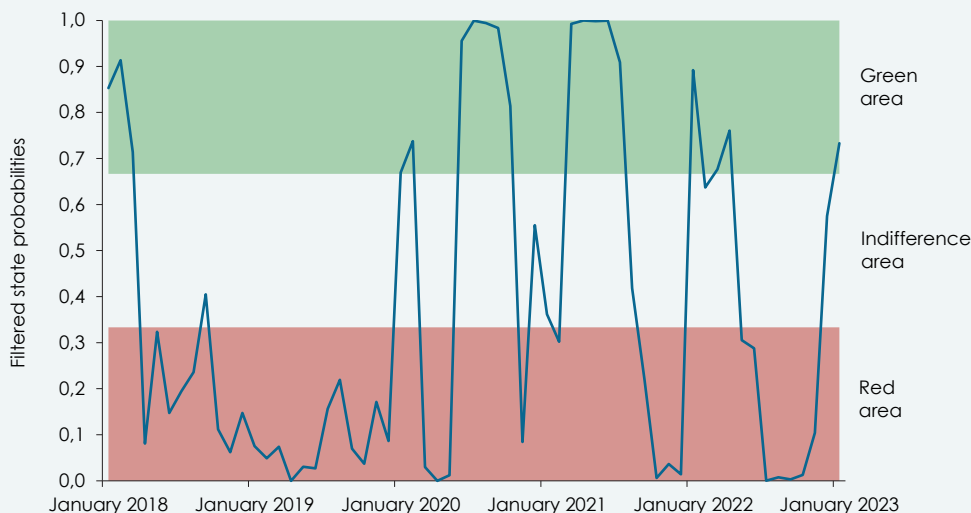
Using a Markov regime switching model, the WIFO-Konjunkturampel (economic traffic light) calculates the probability with which the current values of the indicators of the WIFO-Konjunkturtest (business cycle survey) correspond to an improvement or deterioration in economic assessments compared to the previous period (Glocker & Hölzl, 2015)<sup>3</sup>. The determined probability can fall into one of three categories, which are collectively referred to as the "business cycle traffic light":

- In the "green area" (improvement), the probability is over two-thirds that the

change in the current index values compared to the previous measuring point reflects an improvement in economic assessments.

- In the "red area" (deterioration), the probability is less than one third that the current index value represents an improvement over the previous measuring point.
- Between the "green" and the "red" area lies the indifference area. In this case, the development of the business cycle assessments cannot be clearly assigned.

Figure 3: WIFO-Konjunkturampel (economic traffic light)



Source: WIFO-Konjunkturtest (business cycle survey). The WIFO-Konjunkturampel (economic traffic light) for Austria shows the monthly probability for the phases "improvement of economic assessments" ("green area") and "deterioration of economic assessments" ("red area"). In the indifference area, the development of the business cycle assessments cannot be clearly classified.

<sup>3</sup> Deterioration is defined as the opposite state of the "improvement" state: the probability of being in the

"improvement" state ( $q$ ) is 1 minus the probability of being in the "deterioration" state ( $p = 1 - q$ ).

In January 2023, the probability of being in an improvement regime was estimated by the model to be relatively high at 0.73. The WIFO-Konjunkturampel (economic traffic light) thus showed green in January for the first time since April 2022. The improvement

confirms the stabilisation of the economy in recent months. Whether it already indicates an economic turnaround remains an open question, as economic expectations remained subdued also in January.

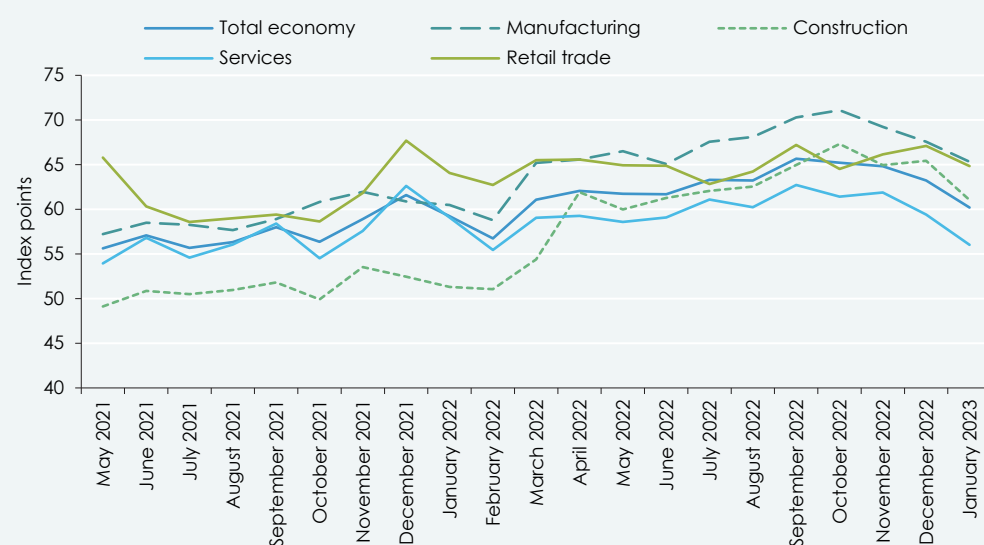
### 3. Uncertainty still very high despite improvements

Since the 1980s, the WIFO-Konjunkturtest (business cycle survey) has surveyed companies' assessment of the uncertainty of the future business situation, which has an influence on companies' investment and employment decisions (Glocker & Hölzl, 2022). In May 2021, the wording of the corresponding question was changed in the course of

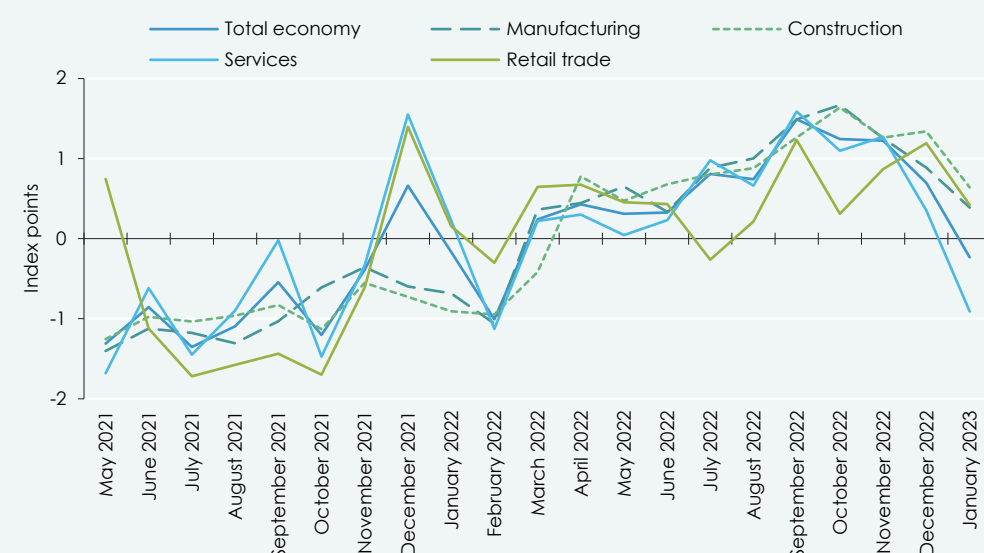
its inclusion in the Joint Harmonised EU Programme of Business and Consumer Surveys. In addition, since May 2021 the question on uncertainty has been asked monthly instead of quarterly as before. Due to these changes, comparisons over time to date are only possible to a limited extent (Figure 4).

Figure 4: **Business uncertainty indicator for the total economy and the sectors**

Indicator values as of May 2021



Standardised time series



Source: WIFO-Konjunkturtest (business cycle survey), not seasonally adjusted. 0 . . . no uncertainty, 100 . . . highest uncertainty. Standardised presentation: normalisation of all indicators to a mean of 0 and a standard deviation of 1. This facilitates the assessment of the business cycle of the uncertainty indicator.

The indicator of uncertainty about the future business situation has a value range from 0 (no uncertainty) to 100 (highest uncertainty). For the total economy, the value in January (first quarter of 2023) was 60.2 points. The indicator was thus 5.0 points lower than in October 2022 (65.2 points). The Ukraine war, the related rise in energy prices and uncertainty about energy supply had already caused uncertainty to rise in all sectors in March 2022, especially in export-oriented

manufacturing. There, business uncertainty continued to be above average in January 2023 (65.3 points) despite a decline. It also remained considerable in construction (61.0 points) despite improvements in recent months, as well as in retail trade, where uncertainty in January 2023 was similar to that in January of the previous year at 64.8 points. In the service industries alone, the uncertainty indicator was in the range of the sector-specific average (56.0 points).

**Business uncertainty decreased compared to autumn 2022. A month-on-month comparison also shows a decline in uncertainty for most sectors.**

## 4. Capacity utilisation and order backlogs stabilise

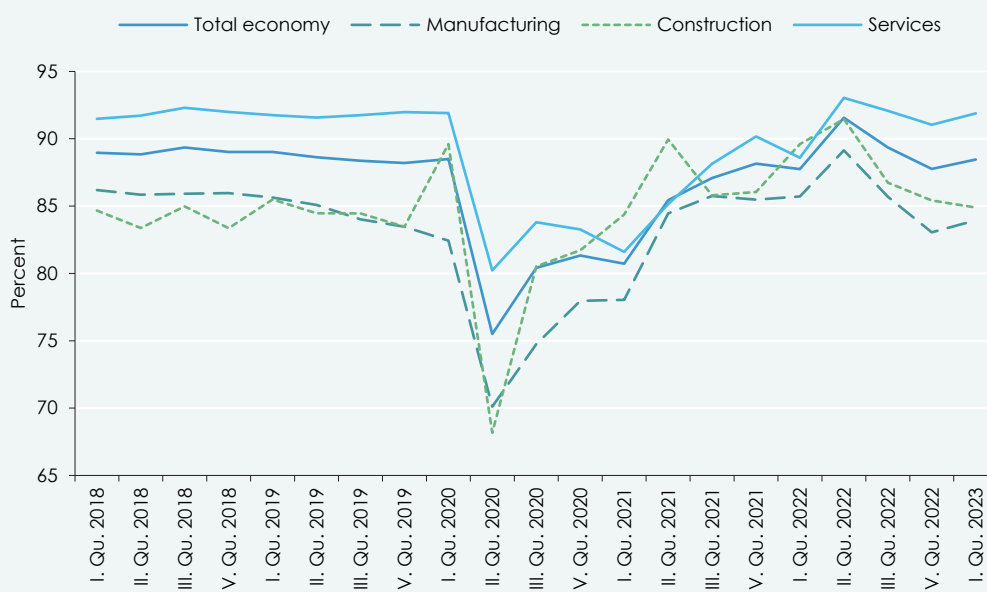
### 4.1 Slight increase in capacity utilisation in most sectors

Especially in sectors with high capital intensity and high capacity adjustment costs, capacity utilisation is an important business cycle indicator (Hözl et al., 2019). It is therefore surveyed as part of the WIFO-Konjunkturtest (business cycle survey) in all sectors except retail trade. Total economy capacity utilisation increased by 0.7 percentage points to 88.5 percent in January 2023 compared to October 2022 (long-term average: 86.8 percent). A slight improvement was observable in all sectors except construction, but

capacity utilisation remained above the average of the last five years in all sectors, albeit only slightly. The most significant increase was recorded in manufacturing (+0.9 percentage points to 83.9 percent). In construction, capacity utilisation fell by 0.5 percentage points, while in services it rose by 0.8 percentage points. So far, the Ukraine war, the related supply bottlenecks and the energy price hikes have not yet led to a significant decline in capacity utilisation. Business expectations for the next few quarters point to a sideways movement in capacity utilisation.

**Capacity utilisation in January was slightly higher than in autumn 2022 in all sectors except construction.**

Figure 5: Capacity utilisation by sectors



Source: WIFO-Konjunkturtest, seasonally adjusted.

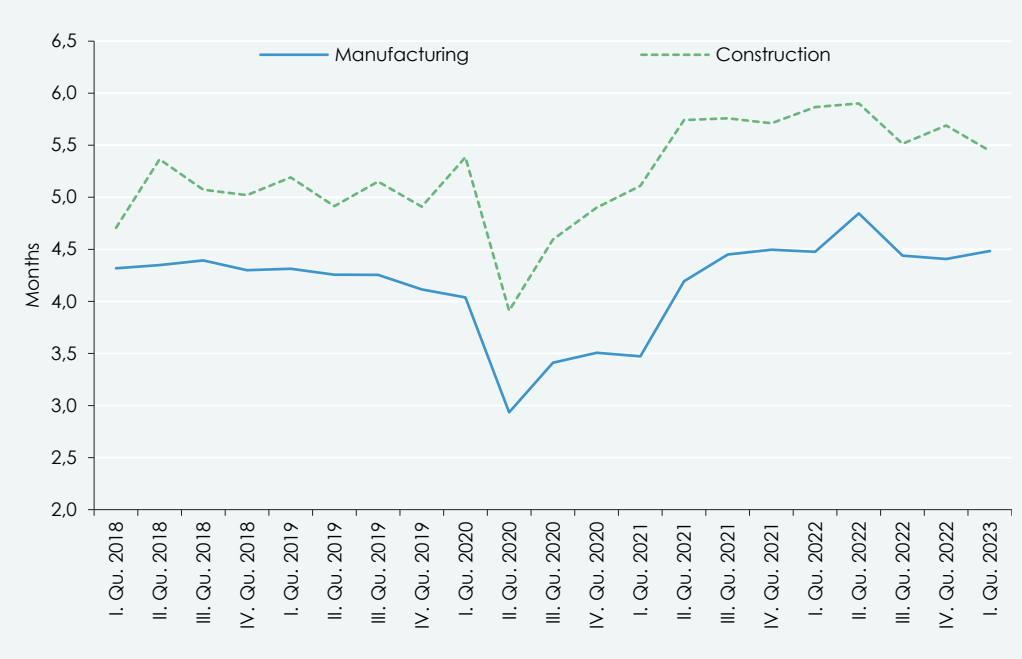
### 4.2 Assured production duration develops stably

The assured production duration – measured in months – is surveyed as part of the quarterly survey of the WIFO-Konjunkturtest (business cycle survey) in manufacturing and in construction (Figure 6). Developments in the two sectors have recently differed slightly. In

construction, companies reported that their production activity is assured for the next 5.4 months (-0.2 months compared to October 2022). In manufacturing, the average assured production duration was 4.5 months (+0.1 months compared to October 2022). Both values are still above the long-term average.



Figure 6: Average secured production time in manufacturing and construction



Source: WIFO-Konjunkturtest (business cycle survey).

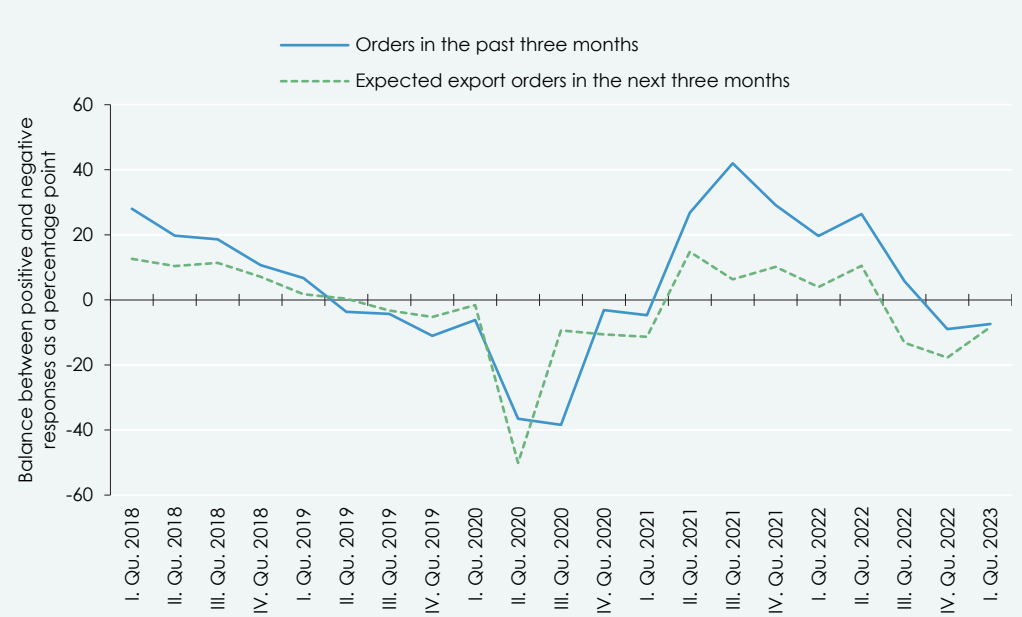
### 4.3 Order situation in manufacturing remains tight

Despite improvements, the indicators for order backlogs and expected incoming foreign orders continued to display a declining momentum.

In manufacturing, order backlogs and expectations of incoming foreign orders are asked once a quarter as relevant indicators. The answers to these questions are aggregated into balances between the share of positive and the share of negative answers. As Figure 7 shows, the order situation in January remained tense; despite an increase, the indicator on order books remained

clearly in negative territory (-7.4 points) and thus continued to signal a decline in new orders in recent months on balance. Expectations for incoming foreign orders improved more markedly, but also remained below the zero line: the share of optimistic voices expecting an increase in foreign orders in the coming months increased compared to October, but the negative responses outweighed the positive ones by 8 percentage points.

Figure 7: Development of overall orders and expected export orders in manufacturing



Source: WIFO-Konjunkturtest (business cycle survey).

## 5. Shortage of labour force remains the most important obstacle to business activity

In the WIFO-Konjunkturtest (business cycle survey), the most important obstacles to the business activity of the companies surveyed are surveyed on a quarterly basis. The companies have the option of reporting no impairment of their economic activity or to choose the most important obstacle from a given list:

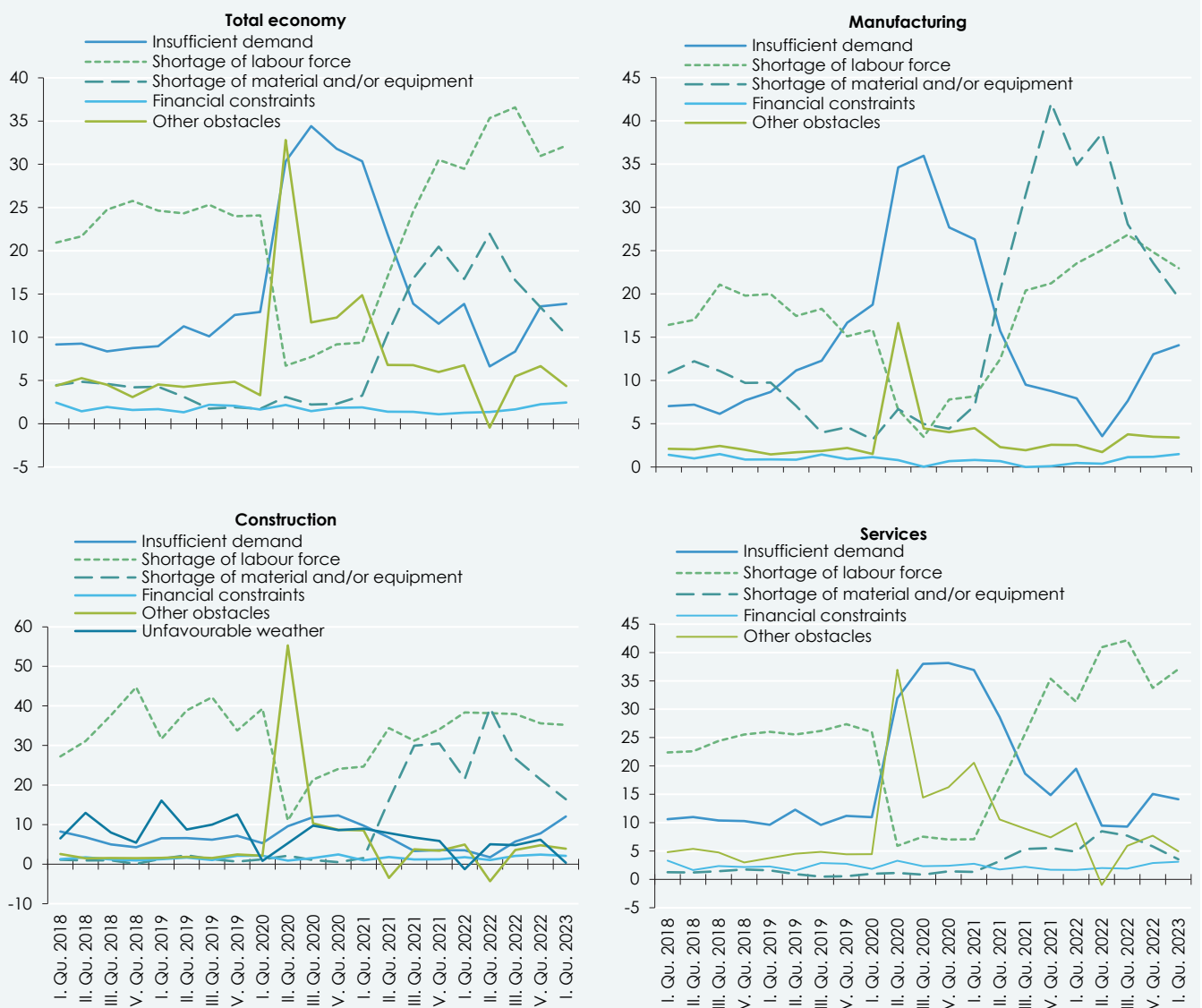
- insufficient demand (services and manufacturing) or lack of orders (construction),

- shortage of labour force,
- shortage of space or capacity (services) or shortage of materials and/or capacity (manufacturing and construction),
- financial constraints and
- other reasons – this category reflects the impact of the COVID-19 pandemic and the public health measures to contain it, in addition to the weather impact.

In construction, the obstacle "unfavourable weather" is also included<sup>4</sup>.

Figure 8: **Factors limiting economic activity**

Percentage shares of all responses



Source: WIFO-Konjunkturtest (business cycle survey), seasonally adjusted. In order to ensure the comparability of the time series during the year, seasonally adjusted values are shown. Negative values cannot be excluded due to the seasonal adjustment procedure "Dainties". These are statistical artefacts.

<sup>4</sup> In the calculation of total economy obstacles, "unfavourable weather" is classified under "other obstacles".

Due to the COVID-19 pandemic and related constraints, supply chain issues, the Ukraine war and strong energy price inflation, the share of companies reporting barriers to their business activity has increased noticeably since 2020. In January 2023, only around 39 percent of manufacturing companies (+5 percentage points compared to October 2022), around 30 percent of construction companies (+8 percentage points), around 37 percent of service providers (+2 percentage points) and around 32 percent of retail companies (+1 percentage points) reported no constraints on their business activity. Before the COVID-19 pandemic, these figures averaged over 50 percent.

The responses on obstacles to business activity show an increase in the importance of the "shortage of labour force". In contrast, the "shortage of materials and/or capacity" has lost further importance.

In manufacturing, the "shortage of labour force" (23.0 percent of all companies) remained the most frequently cited hampering factor in January 2023, ahead of the "shortage of materials and/or capacity" (19.5 percent). However, both were reported less frequently than in autumn 2022. Around 14.1 percent of manufacturing companies – and thus more than in October – named "insufficient demand" as the most important constraint, 3.4 percent "other reasons" and around 1.5 percent "financial constraints" (Figure 8).

In construction, 35.2 percent of the companies surveyed rated the "shortage of labour force" as the most important obstacle to production in January. Not even half as many (16.4 percent) named the "shortage of materials and/or capacity", which continued to lose importance compared to the previous quarter. For 12.1 percent of the

construction companies, "insufficient demand" was the most important obstacle. Reports of "unfavourable weather" declined significantly (0.5 percent). 2.1 percent of the companies named "financial constraints" and 3.9 percent "other reasons".

In the service sectors, too, the "shortage of labour force" (37.1 percent) was the dominant obstacle to business activity in January, clearly ahead of the "insufficient demand" (14.1 percent) and "other obstacles" (5.0 percent). The "shortage of materials and/or capacity" (3.5 percent) and "financial constraints" (3.1 percent) were of lesser importance in the services sector recently.

In retail trade, the barriers to doing business have been surveyed since July 2021. 28.2 percent of retailers surveyed in January 2023 reported "insufficient demand" as the most important constraint, 15.1 percent "supply shortages", 13.9 percent "shortage of labour force" and 2.8 percent "financial constraints".

In the total economy (excluding retail trade), the "shortage of labour force" was the most frequently cited obstacle to economic activity in January (32.2 percent of companies), as in previous quarters. For 13.9 percent of the companies, it was above all the "insufficient demand" that impaired business activity. In the quarterly comparison, the "shortage of materials and/or capacity" (10.3 percent) lost importance. 4.4 percent named other obstacles and 2.5 percent financial constraints as the most important obstacles.

## 6. Summary

The results of the WIFO-Konjunkturtest (business cycle survey) of January 2023 show a slight improvement in companies' economic assessments in a quarterly comparison. The current economic situation is assessed positively in most sectors, but companies continue to expect a sideways movement of the business cycle in the coming months. Nevertheless, the economic traffic light is green for the first time since April 2022. Capacity utilisation stabilised at an average level. As in previous quarters, the shortage of labour force was the most frequently cited obstacle to business activity in January, well

ahead of the insufficient demand and the shortage of materials and/or capacity.

Business uncertainty has declined in recent months, but remains higher than the long-term average in most sectors. This signals continued economic risks as a result of the turmoil in the energy markets and the repercussions on the global economy. The majority of companies surveyed still expect to have to raise sales prices in the coming months. In manufacturing, both the business cycle indices and the order situation indicators continue to show an unfavourable momentum.

## 7. References

European Commission (2021). *The Joint Harmonised EU Programme of Business and Consumer Surveys: User Guide*. [https://ec.europa.eu/info/sites/info/files/bcs\\_user\\_guide\\_en\\_0.pdf](https://ec.europa.eu/info/sites/info/files/bcs_user_guide_en_0.pdf).

Glocker, C., & Hölzl, W. (2015). Bestimmung einer Konjunkturampel für Österreich auf Basis des WIFO-Konjunkturtests. *WIFO-Monatsberichte*, 88(3), 175-183. <https://monatsberichte.wifo.ac.at/57854>.

Glocker, C., & Hölzl, W. (2022). A direct measure of subjective business uncertainty. *German Economic Review*, 23(1), 121-155. <https://doi.org/10.1515/ger-2021-0025>.

- Hözl, W., & Schwarz, G. (2014). Der WIFO-Konjunkturtest: Methodik und Prognoseeigenschaften. *WIFO-Monatsberichte*, 87(12), 835-850. <https://monatsberichte.wifo.ac.at/50863>.
- Hözl, W., Klien, M., & Kügler, A. (2019). Konjunktur schwächt sich weiter ab. Ergebnisse der Quartalsbefragung des WIFO-Konjunkturtests vom Oktober 2019. *WIFO-Monatsberichte*, 92(11), 807-819. <https://monatsberichte.wifo.ac.at/62094>.
- Hözl, W., Klien, M., & Kügler, A. (2022a). Beeinträchtigungen durch den Ukraine-Krieg und mögliche Auswirkungen von Gasstopps auf die Produktion in der Sachgütererzeugung. Ergebnisse der Sonderbefragung zum Ukraine-Krieg im Rahmen des WIFO-Konjunkturtests vom Mai 2022. *WIFO-Konjunkturtest Sonderausgabe*, (2). <https://www.wifo.ac.at/www/pubid/69679>.
- Hözl, W., Klien, M., & Kügler, A. (2022b). Auswirkungen von Energiepreisschocks auf Produktion und Preise. Ergebnisse der Sonderbefragung zur Energiepreisentwicklung im Rahmen des WIFO-Konjunkturtests vom November 2022. *WIFO-Konjunkturtest Sonderausgabe*, (3). <https://www.wifo.ac.at/www/pubid/70472>.