

WIFO ■ REPORTS ON AUSTRIA 10/2021

Economic Sentiment Continues to Brighten, Supply Bottlenecks and Labour Shortages Hamper Production. Results of the WIFO-Konjunkturtest Quarterly Survey of July 2021

Werner Hölzl, Michael Klien, Agnes Kügler

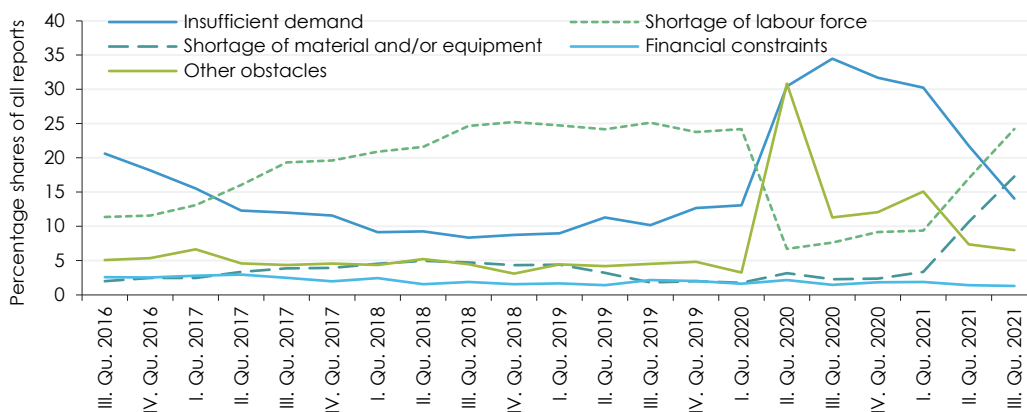
Economic Sentiment Continues to Brighten, Supply Bottlenecks and Labour Shortages Hamper Production

Results of the WIFO-Konjunkturtest Quarterly Survey of July 2021

Werner Hölzl, Michael Klien, Agnes Kügler

- In July, Austrian companies were once again more optimistic about the economic situation than before. The WIFO-Konjunkturampel (economic traffic light) – an early indicator for turning points – continues to show green.
- The index of business expectations recently declined month-on-month, but its level still points to a continuation of the recovery.
- The economic climate indices in all three sectors (manufacturing, construction, services) have already returned to their pre-crisis levels.
- Capacity utilisation in July was lower than before the COVID-19 crisis only in services.
- In the economy as a whole, the "shortage of labour force" is now the most important obstacle to business activity. The "shortage of materials and capacity" continued to gain in importance: in manufacturing in particular, supply bottlenecks for intermediate products have recently hampered production.

Factors limiting economic activity in the total economy



"In the economy as a whole, "shortage of labour force" was the most frequently cited constraint to doing business in July 2021, ahead of "shortage of materials or capacity", which was particularly relevant in manufacturing and construction."

Since the January survey, the "insufficient demand" has become noticeably less important, while the significance of the shortage of labour force has increased markedly – in July it was already the most important obstacle for 24 percent of companies. For around 17 percent it was the "shortage of materials or capacity". This is the highest figure since the survey began and reflects the importance of the supply crisis (source: WIFO-Konjunkturtest, seasonally adjusted).

Economic Sentiment Continues to Brighten, Supply Bottlenecks and Labour Shortages Hamper Production

Results of the WIFO-Konjunkturtest Quarterly Survey of July 2021

Werner Hölzl, Michael Klien, Agnes Kügler

August 2021

Economic Sentiment Continues to Brighten, Supply Bottlenecks and Labour Shortages Hamper Production. Results of the WIFO-Konjunkturtest Quarterly Survey of July 2021

Economic assessments of Austrian companies continued to improve across all sectors in July. Sentiment also brightened in the sectors recently affected directly or indirectly by lockdowns. The WIFO-Konjunkturampel (economic traffic light) continues to show green, confirming the trend of a strong economic upswing. Accordingly, capacity utilisation improved noticeably. For the first time since the beginning of the COVID-19 crisis, companies cited the "shortage of labour force" as the most important obstacle to their activities. In manufacturing and construction, more companies than ever before reported a "shortage of materials or capacity" as the most important constraint.

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

Scientific referee: Christian Glocker • **Research assistance:** Birgit Agnezy (birgit.agnezy@wifo.ac.at), Alexandros Charos (alexandros.charos@wifo.ac.at), Anna Strauss-Kollin (anna.strauss-kollin@wifo.ac.at) • **Cut-off date:** 5 August 2021

Contact: Werner Hölzl (werner.hoelzl@wifo.ac.at), Michael Klien (michael.klien@wifo.ac.at), Agnes Kügler, MSc (agnes.kuegler@wifo.ac.at)

Imprint: Publisher: Christoph Badelt • Editor-in-Chief: Hans Pitlik (hans.pitlik@wifo.ac.at) • Editorial team: Tamara Fellinger, 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 2021

The results of the WIFO-Konjunkturtest (business cycle survey)¹ show an improvement for July 2021 (beginning of the third quarter) compared to spring 2021. Compared to April, the WIFO Business Climate Index rose by 10.2 to 22.0 points (Table 1). Thus, it was about 37 points higher than in July of the previous year. The increase compared to April (beginning of the second quarter) is mainly due to the improvement in the assessment of the business situation, the corresponding index was clearly in positive territory at 25.6 points (+15.4 points). The index of entrepreneurial expectations in July also stood at 19.4 points, significantly higher than in April 2021 (+4.8 points). The less robust rise

in this index in recent months shows that the economic catch-up process is losing some momentum. The majority of companies nevertheless continue to expect an improvement in their business situation.

There are differences by industry: in manufacturing, the WIFO Business Climate Index rose by 6.0 points compared to the previous quarter and, at 20.8 points, was clearly above the zero line separating positive from negative economic assessments. The index of current assessments improved by 11.0 points compared with April and stood at 24.7 points. The index of business expectations stagnated (+0.9 points), but

¹ 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 (business cycle survey) 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 (business cycle survey). 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>) and on the Business Cycle Analyses topic page at WIFO (https://www.wifo.ac.at/en/topics/business_cycle or www.konjunkturtest.at). Hölzl and Schwarz (2014) provide an overview of the WIFO-Konjunkturtest (business cycle survey). Detailed results on the subsectors of manufacturing and services can be downloaded as a graphical appendix (in German) from the project homepage (<https://www.wifo.ac.at/en/research/priorities/wifo-konjunkturtest/publications>).

remained clearly in the optimistic range at 16.8 points.

In the construction industry, the WIFO Business Climate Index improved slightly compared to April (+1.2 points to 35.7 points).

While the index of current assessments fell by 4.8 points to 36.1 points, the index of business expectations increased by 6.8 points to 35.5 points. Both indices thus remained clearly in positive territory.

Economic assessments have recently improved in all sectors. Following the marked improvement in spring, economic expectations developed somewhat less dynamically.

Figure 1: WIFO Business Climate Indices

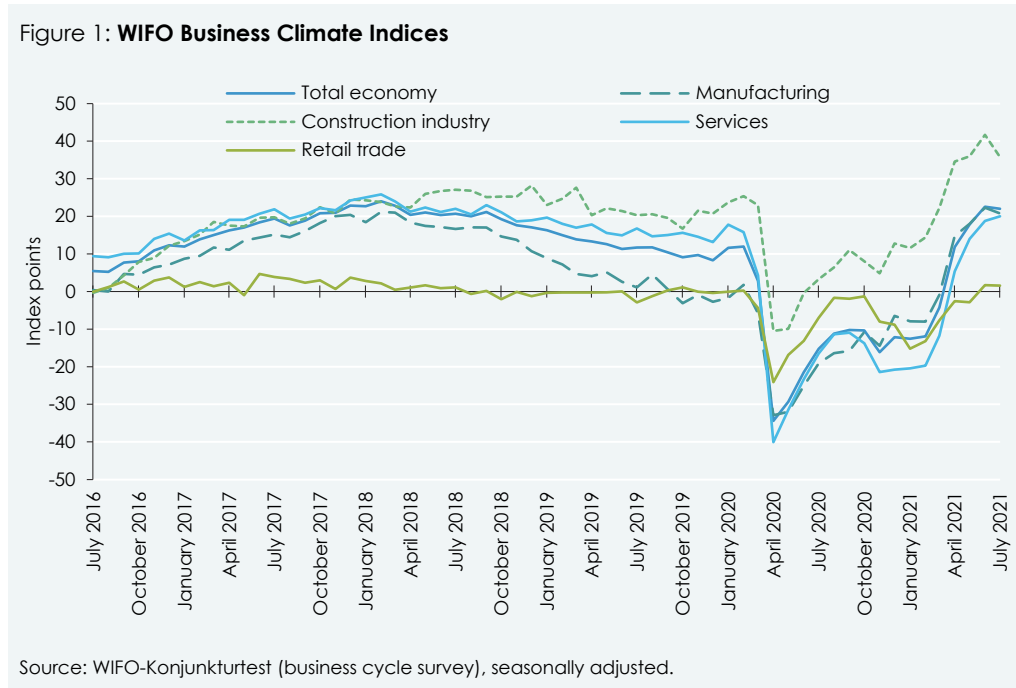


Table 1: Indices of the WIFO-Konjunkturtest (business cycle survey)

	2020				2021			July	July Change compared to April (previous quarter)
	July	October	January	April	May	June	Index points		
Total economy									
WIFO Business Climate Index	- 15.3	- 10.4	- 12.6	11.8	17.8	22.6	22.0	+ 10.2	
Index of current business situations	- 22.2	- 9.6	- 15.0	9.2	14.4	22.3	24.6	+ 15.4	
Index of business expectations	- 8.3	- 11.1	- 10.2	14.6	21.4	22.8	19.4	+ 4.8	
Manufacturing									
WIFO Business Climate Index	- 19.1	- 10.8	- 7.9	14.8	18.0	22.3	20.8	+ 6.0	
Index of current business situations	- 25.8	- 10.2	- 8.2	13.7	18.6	23.0	24.7	+ 11.0	
Index of business expectations	- 12.5	- 11.4	- 7.6	15.9	17.4	21.7	16.8	+ 0.9	
Construction industry									
WIFO Business Climate Index	3.3	8.1	11.6	34.6	36.0	41.7	35.7	+ 1.2	
Index of current business situations	4.1	9.3	18.7	40.9	39.8	41.9	36.1	- 4.8	
Index of business expectations	2.5	6.8	4.5	28.7	32.3	41.5	35.5	+ 6.8	
Service sector									
WIFO Business Climate Index	- 16.5	- 13.8	- 20.4	5.3	14.0	18.8	20.0	+ 14.6	
Index of current business situations	- 25.2	- 13.1	- 26.1	- 0.1	6.5	17.8	22.2	+ 22.3	
Index of business expectations	- 7.8	- 14.4	- 14.8	10.9	21.6	19.8	17.8	+ 6.9	
Retail trade									
WIFO Business Climate Index	- 7.0	- 1.3	- 15.2	- 2.6	- 2.9	1.7	1.6	+ 4.1	
Index of current business situations	2.8	14.5	2.2	5.4	0.7	9.8	9.0	+ 3.6	
Index of business expectations	- 16.8	- 17.0	- 32.6	- 10.5	- 6.4	- 6.4	- 5.9	+ 4.6	

Source: WIFO-Konjunkturtest (business cycle survey).

The mood in the service sector, which is particularly affected by official restrictions, was much more optimistic than in April: the WIFO Business Climate Index was 14.6 points higher in July and at 19.3 points was more clearly above the zero line than before². The increase was driven in particular by the index of current assessments of the situation, which improved by 22.3 points to 22.2 points. The index of business expectations increased by 6.9 points compared with April and was again more clearly in positive territory at 17.8 points.

The business cycle indices for the retail sector, which WIFO calculates for the first time in this article on the basis of surveys conducted

by KMU Forschung Austria, show an improvement at a low level compared to the previous quarter: although the business climate index in July was 4.1 points higher than in April, it remained close to the zero line at 1.6 points. The index of current assessments of the situation rose by 3.6 points to 9.0 points. The index of business expectations increased by 4.6 points, but remained in sceptical territory at -5.9 points.

A longer-term comparison of WIFO's Business Climate Indices reveals the extent of the decline as a result of the COVID-19 crisis, but also the significant increase since January 2021. The differences in sectoral development also become apparent (Figure 1).

Indices of the WIFO-Konjunkturtest (business cycle survey)

The indices of the WIFO-Konjunkturtest (business cycle survey) are calculated monthly at the sector level for manufacturing, construction, services and retail trade. The surveys are conducted monthly by WIFO (manufacturing, construction and services) and KMU Forschung Austria (retail trade). The sector indices are weighted (services 0.5, manufacturing 0.3 and construction and retail trade 0.1 each) to calculate the "macroeconomic indices". The WIFO Business Climate Index aggregates two sub-indices that are reported separately:

- The index of current business situations is based on the monthly survey asking firms to assess their current economic situation as well as the development for the last three months. It is designed as a concurrent index which, due to its early availability (about two months before the current data of the official statistics), is ahead of the official short-term statistics.
- The Index of business expectations summarises the monthly questions that refer to the expected economic development in the three upcoming months. Thus, it is designed as a leading indicator.

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

1. Economic traffic light still shows green – optimistic assessments predominate

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 Business Cycle Test correspond to an improvement or deterioration of the business cycle estimates compared to the previous period (Glocker and Hölzl, 2015)³. The calculated probability can fall into one of three categories, which are collectively referred to as the "WIFO-Konjunkturampel":

- in the "green area" (improvement), the probability is over two-thirds that the change in the current index values compared with 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 measurement point.

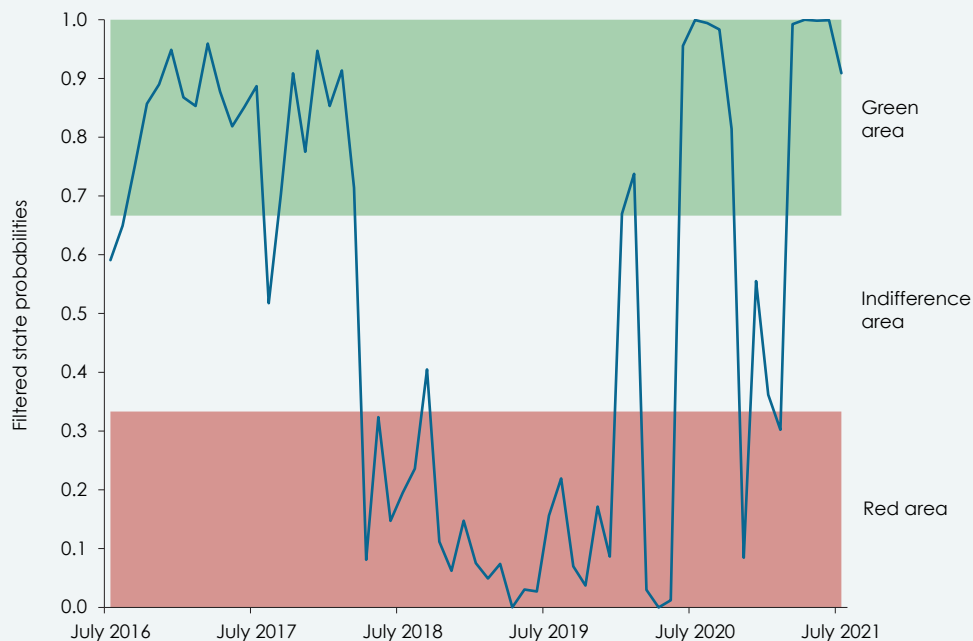
- the indifference area lies between the "green" and "red" areas. In this case, the development of the economic assessments cannot be clearly assigned.

The probability of being in an improvement regime was estimated by the model at 0.91 in July 2021. In the deep slump in April and May 2020, the traffic light jumped to red. During the recovery process in the summer and fall, the traffic light showed green, then jumped to red again in November in the wake of the second COVID-19 wave. During the winter, the traffic light showed yellow, and since March it has shown green (Figure 2). The vast majority of domestic companies still expect the economic upswing to continue.

² As the detailed results by industry show, in June and July 2021 the WIFO Business Climate Indices in accommodation and food services and in transport also rose significantly into positive territory for the first time.

³ Deterioration is defined as the opposite state of the "improvement" state: the probability of being in the "improvement" state (g) is 1 minus the probability of being in the "deterioration" state ($p = 1 - q$).

Figure 2: 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 business assessments" ("green area") and "deterioration of business assessments" ("red area"). In the indifference area, the development of the assessments cannot be clearly classified.

2. Uncertainty remains above average

Since the 1980s, the WIFO-Konjunkturtest (business cycle survey) has been asking companies to assess the uncertainty of their future business situation, which has an impact on their investment and employment decisions (Glocker and Hölzl, 2019). In May 2021, the wording of the question on uncertainty was changed in the course of its inclusion in the Joint Harmonised EU Programme of Business and Consumer Surveys. In addition, since May, the uncertainty question has been asked on a monthly basis instead of the previous quarterly basis. Due to these changes, comparisons with previous quarters are not yet possible.

The indicator of uncertainty regarding the future business situation has a value range from 0 (no uncertainty) to 100 (highest uncertainty). For the economy as a whole, the value in July 2021 (third quarter) was 55.3 points. Uncertainty was above average in manufacturing (58.2 points), slightly below average in services (54.4 points) and significantly below average in construction (50.6 points). According to the available monthly data, uncertainty in July was slightly higher than in May in all sectors, but at the same time lower than in June.

Uncertainty was above average in manufacturing in July.

3. Capacity utilisation and order backlogs improve again

3.1 Further significant increase in capacity utilisation

Especially in sectors with high capital intensity, high adjustment costs and long adjustment periods, capacity utilisation is an important business cycle indicator. It is surveyed in all sectors as part of the WIFO-Konjunkturtest (business cycle survey; Hölzl et al., 2019). Macroeconomic capacity utilisation increased by 2.7 percentage points to 87.6 percent compared to April. By sector, capacity utilisation improved in all sectors except construction, where it fell by

4.0 percentage points but remained at an above-average level of 86.0 percent. In manufacturing, it was also above average at 85.8 percent (+1.3 percentage points compared to April). A significant increase was recorded in the services sectors (+5.0 percentage points), but capacity utilisation there remained at 89.1 percent, around one percentage point below the long-term average before the COVID-19 crisis. This shows that economic activity in the service industries continues to suffer more from the effects of the crisis than in other sectors.

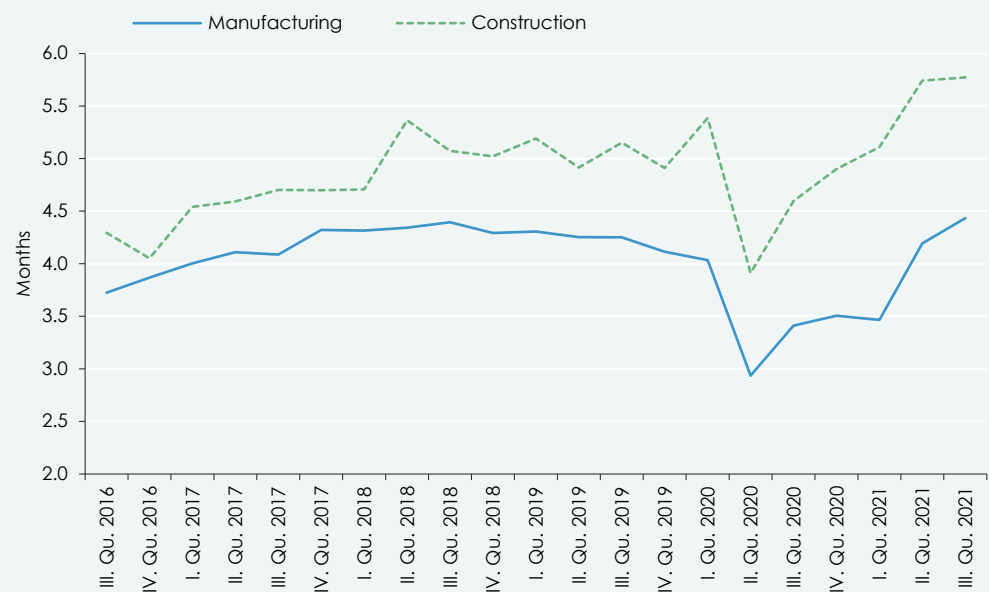
Compared with April, capacity utilisation rose in all sectors except construction. Only in the service industries was it still lower than the average of the pre-crisis years.

Figure 3: Capacity utilisation by sectors



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

Figure 4: Assured average production in manufacturing and construction



Source: WIFO-Konjunkturtest (business cycle survey).

3.2 Secured production time increases slightly again

The assured production duration – measured in months – is surveyed as part of the quarterly WIFO-Konjunkturtest (business cycle survey) in manufacturing and construction (Figure 4). In July, the average values in both sectors were higher than in the previous quarters.

In construction, firms reported that their production activity is assured for the next 5.8 months (+0.1 months compared with April 2021) – a long-run high. In manufacturing, the average assured production duration also increased to 4.4 months (+0.7 months compared with April 2021).

3.3 Order situation and order situation expectations in manufacturing improve significantly once again

In manufacturing, new orders and expectations of new orders from abroad are asked as relevant indicators once a quarter. The responses to these questions are aggregated into balances between the share of positive and the share of negative responses. As Figure 5 shows, according to the July survey, the development of order books

again improved significantly compared with the previous quarter. Expected foreign order books stagnated: although the share of optimistic voices expecting an increase in foreign orders in the coming months fell in July compared with April, the positive reports still outweighed the negative ones by 6.9 percentage points.

In manufacturing, new orders continued to rise, and the majority of companies remained confident with regard to expected foreign orders.

Figure 5: **Development of overall orders and of expected export orders in manufacturing**



Source: WIFO-Konjunkturtest (business cycle survey).

4. Barriers to business activity: staff shortages and material shortages continue to gain importance

In the WIFO-Konjunkturtest (business cycle survey), obstacles to firms' business activities are also surveyed on a quarterly basis. The surveyed companies have the option to report no obstacle to their economic activities or to choose the most important obstacle from a predefined list:

- insufficient demand (services and manufacturing) or lack of orders (construction),
- shortage of labour force,
- shortage of space or capacity (services) or shortage of material and/or equipment (manufacturing and construction),
- financial constraints and
- other factors – in addition to the weather impact (construction), this category

mainly reflects the impact of the COVID-19 crisis and the health policy measures to contain it.

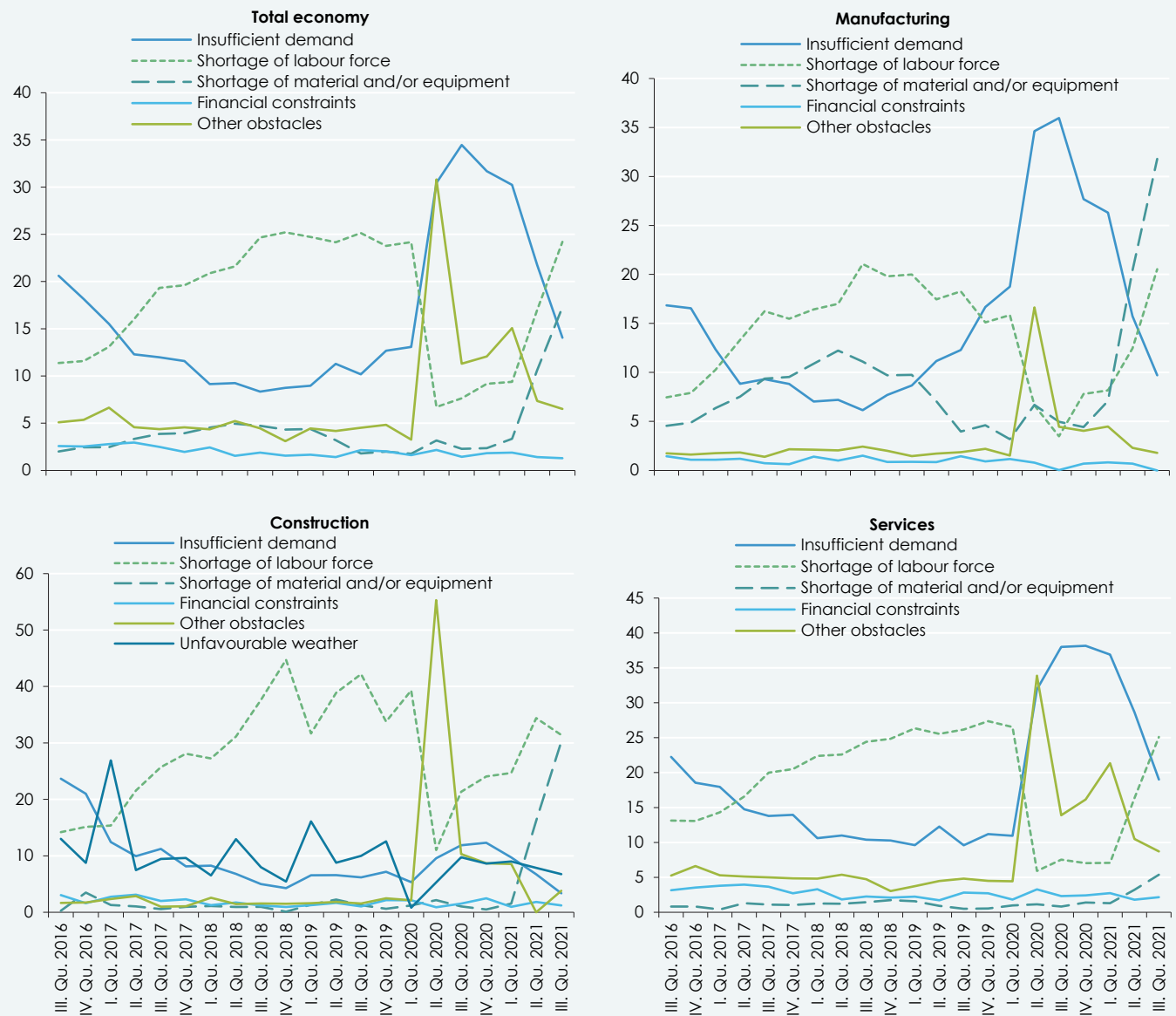
Firms located in construction industries can report "unfavourable weather" as a separate, stand-alone obstacle⁴.

In July 2021, only about 36 percent of firms in manufacturing (up –12 percentage points from April), about 23 percent of construction firms (up –10 percentage points), and about 40 percent of firms in services (up 1 percentage point) reported that their operations were unaffected.

⁴ In the calculation of macroeconomic barriers, "adverse weather" is classified under "other barriers".

Figure 6: **Factors limiting economic activity**

Percentage shares of all reports



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

As in April, "shortage of materials or capacity" was the most important obstacle in manufacturing in July 2021. This category also continued to gain in importance in the construction industry.

In manufacturing, "shortage of materials or capacity" was the most frequently cited most important obstacle to production activity in July 2021 for the second time since the surveys began (around 32 percent of all firms), ahead of "shortage of labour force" (around 21 percent). Only about 10 percent of tangible goods producers reported "insufficient demand" as the most important obstacle anymore, about 2 percent "other obstacles" and less than 1 percent "financing problems" (Figure 6). Since the April survey, the share of tangible goods producers facing an "insufficient demand" decreased significantly; however, the share of firms with a "shortage of materials or capacity" grew strongly. The reason for this is the continued shortage of industrial inputs and raw materials, which in turn is due to logistical

problems, such as capacity bottlenecks in the international transport of goods, partly due to the closure of ports, and a backlog of orders. The "shortage of labour force" also gained noticeably in importance in manufacturing compared with previous quarters.

In the construction industry, about 31 percent of firms surveyed in April reported "shortage of labour force" as the most important impediment to construction activity, ahead of "shortage of materials or capacity" (about 30 percent), "unfavourable weather" (about 7 percent) and "insufficient demand" (about 3.5 percent).

In the services sectors, "shortage of labour force" (25 percent of firms), "insufficient demand" (around 19 percent) and "other

obstacles" (around 8.5 percent) were the main constraints on business activity in July. "Other obstacles" (-12 percentage points) and the shortage of demand, however, became noticeably less important since January, reflecting the gradual easing of the COVID-19 crisis and the widespread withdrawal of regulatory measures.

The aggregate indicator for the economy as a whole again shows a decline in the "insufficient demand" factor for July, to around

14 percent of companies. The "shortage of labour force" factor, on the other hand, gained strongly in importance and was the most important constraint for 24 percent of companies in July. For around 17 percent of companies it was the "shortage of materials or capacity". This is the highest figure since the survey began and reflects the importance of the supply crisis, which affected manufacturing and construction in particular, but was also felt in the other sectors.

5. Summary

The indices of the WIFO-Konjunkturtest (business cycle survey) show a noticeable recovery of the economic situation across all sectors in July. Sentiment also brightened in those sectors that had recently been directly or indirectly affected by lockdowns. Capacity utilisation also improved noticeably in July. While it remained below average in services despite a significant increase, capacity utilisation in manufacturing and construction exceeded pre-crisis levels. New orders in manufacturing rose again sharply in the final quarter, while expectations for the

future development of orders dimmed slightly. Insufficient demand was no longer the most important constraint on business activity in July; even more frequently, domestic companies reported a shortage of staff or a shortage of materials or capacity. This reflects the positive economic trend, but also shows that labour shortages and supply bottlenecks can slow the recovery. Particularly in manufacturing, but also in construction, shortages of materials and inputs caused by supply bottlenecks are hampering production.

6. References

- European Commission (2019). *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.
- Friesenbichler, K.S., & Hözl, W. (2021). 2020 Einbruch der Investitionen der Sachgütererzeugung – 2021 leichte Erholung erwartet. Ergebnisse des WIFO-Investitionstests vom Herbst 2020. *WIFO-Monatsberichte*, 94(1), 41-51. <https://monatsberichte.wifo.ac.at/66831>.
- Glocker, Ch., & Hözl, 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, Ch., & Hözl, W. (2019). Assessing the Economic Content of Direct and Indirect Business Uncertainty Measures. *WIFO Working Papers*, (576). <https://www.wifo.ac.at/www/pubid/61620>.
- 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>.