2.6 The ifo Business Survey in the Service Sector

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2.6.1 Beginnings and Development of the Panel

When the ifo Institute first launched the ifo Business Survey in 1949, only companies from the manufacturing industry were surveyed. In the following years, the survey was extended to the retail and wholesale sector as well as to the construction industry. At the time, surveying these sectors was sufficient to trace the business cycle and the development of the German economy. However, with the service sector still missing, the largest part of the German economy was not covered. By around 2000, the gross value-added share of the service sector (excluding wholesale and retail trade) in Germany had risen to almost 60%. This growth meant that information about the entire sector and its various sub-sectors also became more important.

Thus, a monthly survey for the service sector was set up in the early 2000s. Over several years, a panel of participating companies was built, and aggregation hierarchies were defined. Since 2005, the results of the ifo Business Survey in the service sector have been published monthly. It should be noted that before the introduction of the ifo Business Survey in the service sector, individual areas of the sector were covered by regular surveys, although these were neither carried out monthly nor comprehensive. Examples of these were a business survey of architects, a survey of IT service providers, and a business survey of leasing companies. Furthermore, the questionnaire was adapted to the respective area and therefore varied considerably between these individual surveys. A survey with a standardized questionnaire now covers all service sectors except public service providers (education, health and social services, and government administration and defence) and the finance sector; it thus generates comparable results. Due to the relatively short time series in 2005, the values were initially published in unadjusted form. The publication of the seasonally adjusted values started when the time series had reached a sufficient length. The results for the service sector are now also included in the ifo Business Climate Index for Germany.

2.6.2 Descriptive Statistics

In 2022, the monthly number of participants in the ifo Business Survey in the service sector was on average 2,500, though that year 4,500 companies received the monthly questionnaire. This corresponds to an average response rate of 56%. This relatively low rate can be explained by the fact that new companies are continuously being recruited, while only a certain proportion of the originally recruited participants always answer the surveys. Companies that have not participated in the survey for twelve months or longer are removed from the panel. Panel mortality is a major challenge for a monthly survey and therefore constant recruitment of new companies is essential.

2.6.3 Questionnaire

In total, the questionnaire for the service providers consists of twelve monthly standard questions, which are nearly the same as the standard questions for the other sectors, such as the manufacturing industry. The topics of these questions are mostly core variables of the companies, such as the business situation, turnover, employment, or prices; they refer to the current month, developments in the previous month, and plans or expectations for the upcoming months. The wording of the questions is based on the guidelines for the harmonization of business surveys in the European Union. The questionnaire is shown in Figure 2.28 at the end of this chapter.

In addition to these monthly standard questions, other questions are asked on a regular basis, quarterly or semi-annually. Topics here are, for example, business constraints, capacity utilization, investment activity, the banks' willingness to grant credits, or short-time work. Figures 2.29 and 2.30 show an overview of the these questions. Furthermore, supplementary questions can be included in the questionnaire whenever needed. These questions mainly relate to current relevant economic developments or cover certain aspects of interest. Section 4.13 presents a selection of these supplementary questions and their results.

2.6.4 Methodology, Hierarchies and Weighting

The calculations of the companies' answers to aggregated time series follows the same scheme as described in detail in Subsection 2.2.3. Before the calculations can be performed, each company receives a weighting factor based on its annual turnover. This differs from the manufacturing and construction sectors, in which the firm weights are based on the number of employed persons. This difference is due to the fact that the number of employees does not necessarily reflect the economic size of the companies in the service sector. There are big differences between the various service sectors. For example, turnover in personal services generally develops linearly with the number of employees, while turnover in business-related services can vary significantly from the development of the number of employees. Table 2.24 shows the corresponding allocation schemes for the firm weights. These firm weights reflect the higher impact of larger companies on the economy. Accordingly, the responses of a company with annual sales of more than 25 million Euros receive a ten times higher weight in the calculations than those with annual sales of less than 50,000 Euros. After the individual responses of the enterprises have been weighted at the micro data level, the balance calculations and aggregations can be executed.

In addition, each company is assigned to a branch. This occurs at the bottom level of the current classification of economic activities of the German Federal Statistical Office; the so-called WZ2008. If a company provides various services, the classification is based on the company's principal activity.

Table 2.25 shows all covered service industries that are included in the aggregation for the

Table 2.24: Firm weights in the service sector

Turnover,	year (in million €)		Weighting factor
	<	0.05	1
0.05	<	0.10	2
0.10	<	0.25	3
0.25	<	0.50	4
0.50	<	1.0	5
1.0	<	2.0	6
2.0	<	5.0	7
5.0	<	10.0	8
10.0	<	25.0	9
	\geq	25.0	10

entire service sector. The sections "K - Financial and insurance activities", 4 "O - Public administration and defence; compulsory social insurance", "P - Education", and "Q - Human health and social work activities" as well as Veterinary activities (WZ-2008: 75.00) are part of the service sector according to the official classification, but are not included in the ifo Business Survey. The trade sector is also not included as the separate ifo Business Survey trade already exists (Section 2.4). In addition, the sections "D - Electricity, gas, steam, and air conditioning supply" and "E - Water supply; sewerage and waste management and remediation activities", which are not part of the service sector according to the official classification, are surveyed but not taken into account in the calculation of the results for the entire service sector.

For the calculation of the aggregated results hierarchies are used. These hierarchies assign bottom-up which service industries go into higher-level aggregates. The service industries on the 2-digit level ⁵ are then aggregated to the overall service sector based on the individual sector weights. These sector weights are based on the shares of the respective WZ-2-digits of the total gross value added of all covered industries covered by the ifo Business Survey in the service sector. The weights are adjusted at least every five years to account for changes in these shares. Table 2.25 shows the currently applicable weights.

⁴ An exception to this rule are the enterprises engaged in "equipment leasing" (WZ-2008: 64.91). Although they are surveyed, they are not taken into account in the calculation of the overall indicator for the service sector.

⁵ The WZ-2-digits designate the second hierarchical level of the economic branch classification. Higher ranked are only the "economic sections", which are marked with letters.

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Table 2.25: Industries included in the overall service sector and their respective weights

WZ08 Code	Description	Weight
Н	Transportation and storage	
49	Land transport and transport via pipelines	4.51
50	Water transport	1.07
51	Air transport	0.68
52	Warehousing and support activities for transportation	4.50
53	Postal and courier activities	1.42
1	Accommodation and food service activities	
55	Accommodation	1.44
56	Food and beverage service activities	3.02
J	Information and communication	
58	Publishing activities	0.42
59	Motion picture, video and tv production; sound recording and music publishing	0.48
60	Programming and broadcasting activities	0.65
61	Telecommunications	3.14
62	Computer programming, consultancy and related activities	3.45
63	Information service activities	0.73
L	Real estate activities	
68	Real estate activities	35.93
М	Professional, scientific and technical activities	
69	Legal and accounting activities	3.98
70	Activities of head offices; management consultancy activities	2.02
71	Architectural and engineering activities; technical testing and analysis	3.74
72	Scientific research and development	1.15
73	Advertising and market research	1.83
74	Other professional, scientific and technical activities	0.36
N	Administrative and support service activities	
77	Rental and leasing activities	6.06
78	Employment activities	2.40
79	Travel agency, tour operator and other reservation service and related activities	0.73
80	Security and investigation activities	0.33
81	Services to buildings and landscape activities	1.75
82	Office administrative, office support and other business support activities	2.64
R	Arts, entertainment and recreation	
90	Creative, arts and entertainment activities	0.80
91	Libraries, archives, museums and other cultural activities	0.09
92	Gambling and betting activities	1.59
93	Sports, entertainment and recreation activities	1.50
S	Other service activities	
94	Activities of membership organisations	1.29
95	Repair of computers and personal and household goods	1.04
96	Other personal service activities	5.26

Note: The sections "G - Trade", "K - Financial and insurance activities", "O - Public administration and defence; compulsory social insurance", "P - Education", and "Q - Human health and social work activities" as well as Veterinary activities (WZ-2008: 75.00) are not included in the results for the overall service sector.

Apart from the results for the entire service sector, results are calculated for all service industries covered in the hierarchies that have a sufficient number of participants. In addition, there are also other aggregates calculated by other hierarchies. Examples of such aggregates are service providers related to consumption, business related service providers, or the event industry. Moreover, there are results separately calculated for regions or firm-size classes.

2.6.5 Results

The results of the ifo Business Survey in the service sector have been published since 2005. As an example, Figure 2.26 shows the three most important time series for the service sector (business climate, assessment of business situation, and business expectations). In the period between 2005 to 2007, the evaluation of the current situation was increasingly positive. The business expectations were also positive. Thus, the business climate in the service sector improved. At the beginning of 2007, however, optimistic expectations gradually gave way to neutral and pessimistic outlooks. During the economic crisis, the balance of the current business situation was for some months even negative, with business climate and business expectations reaching their lowest levels in December 2008. The business situation followed the development of the business expectations and reached its lowest value in July of 2009. By the end of 2010, the indicators had recovered to the same level as before the financial crisis. The euro crisis of 2012 can also be seen in the data. At the end of 2017, the business climate indicator rose to a new record level, unchallenged until now. However, it had already been fluctuating at a high level since mid-2015 with values between 24 and 32 points. At the end of 2018, the indicator started to decline. The outbreak of the Corona pandemic and the resulting lockdowns and restrictions marked the strongest decline of the business climate. A long recovery followed. In 2022, geopolitical crises and uncertainties related to energy supply led to pessimistic business expectations. However, the business situation was still mainly assessed positive.

A comparison with the manufacturing sector shows that the development of the business climate indicators of the two sectors was similar until 2011 (Figure 2.27). According to the business climate, however, the manufacturing industry felt the effects of the economic crisis more strongly. Similarly, the decline of the climate indicator in the years 2011 to 2012 was much more pronounced in the manufacturing sector than in the service sector. In the period between 2011 to 2016 the business climate was consistently more positive in the service sector than in the manufacturing industry. Afterwards, the two time series almost converged in 2017, and followed an almost identical trajectory until April of 2018. Subsequently, the business climate of the manufacturing industry declined and in 2019 became negative. One reason was growing uncertainty surrounding the economic development due to Brexit and growing trade conflicts. Meanwhile, the climate of the service sector maintained its level and only started to decline in the second half of 2019. During the Corona pandemic, some service industries (e.g., accommodation, food service activities, travel agencies) were hit especially hard by governmental restrictions. Therefore, the recovery of the business climate after the

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Figure 2.26: ifo Business Climate and its sub-indicators in the service sector

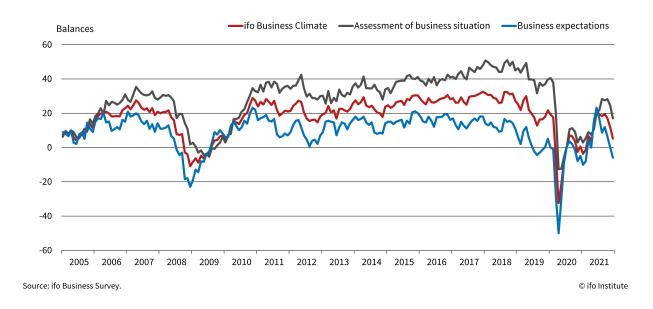
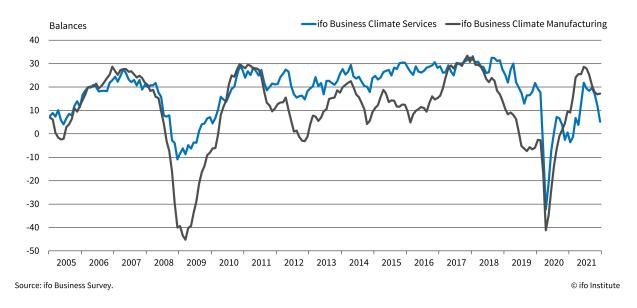


Figure 2.27: ifo Business Climate of the service sector compared to the manufacturing industry



first lockdown was not as smooth as in the manufacturing industry.

Table 2.26 shows the correlations of the standard time series of the service sector. The highest correlation is achieved by the time series for the business situation and for the order backlog assessment. In addition, the business climate indicator shows high correlations with its two sub-components and the employee plans. Moreover, the employment plans seem to show a certain synchronism with the business climate and the business situation and order backlog assessments. The price expectations show the highest correlations when compared with the time series for the employee plans and order backlog assessment. The turnover compared to last year and last month also show a high correlation.

Table 2.26: Contemporaneous correlation between the monthly standard questions

	ВС	BS	BE	EP	PE	TE	TY	TD	OA
ВС	1.000								
BS	0.922	1.000							
BE	0.861	0.597	1.000						
EP	0.888	0.896	0.665	1.000					
PE	0.688	0.782	0.399	0.838	1.000				
TE	0.831	0.716	0.787	0.836	0.661	1.000			
TY	0.826	0.849	0.600	0.818	0.688	0.693	1.000		
TD	0.848	0.785	0.729	0.794	0.594	0.772	0.893	1.000	
OA	0.851	0.966	0.495	0.891	0.827	0.694	0.809	0.725	1.000

BC: Business climate, BS: Business situation, BE: Business expectations, EP: Employment plans, PE: Price expectations, TE: Turnover expectations, TY: Turnover development compared to the same month last year, TD: Turnover development in the previous month, OA: Order backlog assessment.

Source: ifo Business Survey.

Figure 2.28: Standard questions in services

Fig. - Business survey for service sector ifo Institute - Center for Macroeconomics and Surveys

Please respond by ...



Your current information status November 2021

Please base responses only on domestic locations and disregarding purely seasonal fluctuations.

Sector: 1234567 Provision of services xxx

ID No. 19-12345-12345

CURRENT SITUATION	PLANS AND EXPECTATIONS FOR THE NEXT 3 MONTHS
1. We characterize our current business situation as good satisfactory poor	8. We expect our sales** to increase remain roughly the same decrease
2. Our order backlog (if customary for the industry) is comparatively large sufficient too low	9. We expect our workforce to increase remain roughly the same decrease
REVIEW	10. We expect our prices to ☐ increase
3. Compared to September, in October our workforce increased	remain roughly the same decrease
☐ remained roughly the same ☐ decreased	EXPECTATIONS FOR THE NEXT 6 MONTHS
4. Compared to September, our prices in October have ☐ risen ☐ not changed ☐ fallen	11. We expect our business situation to become more favorable stay the same become less favorable
5. Compared to September, in October our order backlog increased remained roughly the same decreased	12. The future development of our business situation is currently asy to predict moderately easy to predict moderately difficult to predict difficult to predict
6. In the past 3 months, our business situation improved remained unchanged worsened	
7a. In the past 3 months, our sales* increased remained the same decreased	
7b. Compared to October 2020, our sales ** in October 2021 ☐ increased ☐ remained the same ☐ decreased	
* sales development over the course of three months including international sales ** including international sales	

 $Your \, responses \, will \, be \, handled \, in \, strictest \, confidence. \, Legal \, data \, protection \, is \, fully \, guaranteed. \, Privacy \, policy: \, \underline{www.ifo.de/en/Datenschutz-Umfragen}$

Figure 2.29: Special questions in services, part 1

ifo - Business survey for service sector ifo Institute - Center for Macroeconomics and Surveys

Please respond by ...



Your current information status 2021

Please base responses only on domestic locations and disregarding purely seasonal fluctuations.

Sector: 1234567 Provision of services xxx

ID No. 19-12345-12345

SPECIAL QUESTIONS					
QUARTERLY		ANNUALLY			
JANUARY - APRIL - JULY - OCTOBER	R	MARCH			
A) Our business activity is curren impeded	ntly	A1) Our investments in the past year (2020 vs. 2019) were			
☐ yes		2020	+	=	-
□ no		overall investment			
if yes, by the following factors ☐ too few orders / insufficient		– buildings			
☐ lack of skilled workers	demand	– equipment			
☐ lack of low-skilled workers		– software / databases			
☐ financing constraints☐ insufficient technical capacity☐ lack of space / business equipment☐ unfavorable weather conditions		– research / development			
		A2) We expect our investments in the current year (2021 compared to 2020) to			
\square other factors		2021		+ =	
B) Could you currently meet a ris	e in demand with the existing	overall investment			
capacity at your company?		– buildings			
☐ yes ☐ no		– equipment			
	usinges activities by	– software / databases			
If yes: We could expand our bu % .	asiness activities by	– research / development			
(please round percentage to w	/hole number)				
MARCH - HINE - SEPTEMBER - DEC	FMRFD	NOVEMBER			
MARCH SOIL SELTEMBER DEC	LINDLIK	NOVEMBER			
banks.	-	A1) Our investments in the current year (2021 compared to 2020) are			
yes		2021	+	=	_
If yes, the banks were		overall investment			
☐ accommodating ☐ normal	_	– buildings	2020		
less accommodating	_ other reasons	– equipment			
_		– software / databases			
	mmodating	– research / development			
		A2) We expect our investments in the coming y (2022 compared to 2021) to	ear		
		2022			
		overall investment			
		– buildings	+ =		
		– equipment			
		– software / databases			
		– research / development			

 $Your \, responses \, will \, be \, handled \, in \, strictest \, confidence. \, Legal \, data \, protection \, is \, fully \, guaranteed. \, Privacy \, policy: \, \underline{www.ifo.de/en/Datenschutz-Umfragen}$

Thank you for your input!

Figure 2.30: Special questions in services, part 2

ifo - Business survey for service sector ifo Institute - Center for Macroeconomics and Surveys Please respond by ...

Leibniz-Institut für Wirtschaftsforschung an der Universität München e.V. Postbox 86 04 60 81631 Munich

Your current information status 2021

Please base responses only on domestic locations and disregarding purely seasonal fluctuations.

Sector: 1234567 Provision of services xxx

ID No. 19-12345-12345

ANNUALLY		EVERY 2 YEARS		
NOVEMBER 31) Our investment activities have the following objectives:		SEPTEMBER		
		a) Sales* for 2020 in euros ☐ up to 50,000 ☐ 100–250 m		
extension of capacity rationalization (increase in efficiency)	2021 2022	50,000-100,000 100,000-250,000 250,000-500,000 500,000-1 m 1-2 m 2-5 m 5-10 m 10-25 m	☐ 250-500 m ☐ 500 m-1 bn ☐ 1-2 bn ☐ 2-5 bn ☐ 5-10 bn ☐ 10-25 bn ☐ 25-50 bn ☐ 50-100 bn	
replacement procurement other investment objectives we do not invest 32) The following factors are decisive for our invests	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □			
demand financial conditions	2021 2022	□ 25-50 m □ 50-100 m *Sales excluding VAT: Plea	☐ 100 bn and more ase report only external sales (excluding	
technical factors other factors we do not invest		internal company sales)	or, depending on the sector, fee revenue brokers), new business (leasing	
		b) Number of employees* up to 4 5-9 10-19 20-49 50-99 100-49 250-499	500–999 1,000–1,999 2,000–4,999 5,000–9,999 10,000–19,999 20,000–49,999 50,000 and more	

Thank you for your input!

Service sector – Special Questions 2021 (reverse)

workers, trainees, and workers in minor employment