Banco de España Business Activity Survey (EBAE)

Methodological note

1 General information

The Banco de España Business Activity Survey (EBAE) is conducted on a quarterly basis on a broad sample of Spanish non-financial corporations (NFCs) to assess how business activity has fared in the quarter in question and the outlook for the short term. The EBAE provides useful, real-time information on turnover, employment, costs and prices and the main constraints on business activity, and is thus particularly helpful for diagnosing short-term economic developments. The EBAE, which was first conducted in 2020 Q4, is an initiative undertaken by the Banco de España, in line with other regular business surveys carried out by other Eurosystem national central banks, for example, the Banca d'Italia, the Deutsche Bundesbank and the Banque de France.

This note describes the key methodological aspects of the EBAE and is structured as follows. Section 2 explains how the sample of firms is designed, Section 3 outlines the questionnaire design. Section 4 describes how the fieldwork is carried out and Section 5 analyses the weights used to present the aggregate results. Lastly, Section 6 shows how external researchers can access these microdata.

¹ Indagine sulle aspettative di inflazione e crescita (Survey on Inflation and Growth Expectations).

² Bundesbank Online Panel - Firmen (Bundesbank Online Panel - Firms).

³ Enquête mensuelle de conjuncture (Monthly Business Survey).

2 Sample design

At the date of this note, the EBAE questionnaire is sent to a representative sample of around 15,000 Spanish NFCs selected by the Banco de España's Central Balance Sheet Data Office (CBSO). This sample comprises a set of firms that regularly collaborate with the CBSO (around one-third of the total) and a sample of NFCs from the integrated CBSO database (CBI), in order to ensure that the final sample is representative – by sector and size – of the population of firms in Spain, taking as a reference the Central Business Register (DIRCE, by its Spanish initials). The second group of firms are subject to random sampling that is proportionate to their size and sector.⁴

Table 1 shows the number of firms that completed the survey in each quarter in 2024, broken down into four size groups and 15 sectors. By size, of the close to 15,000 firms in the quarterly sample, almost 7,500 (49.6% of the total) have fewer than ten employees, while some 550 (3.7% of the total) have more than 250 employees. By sector, around 3,200 (21.4% of the total) are manufacturing firms and more than 2,700 (18.3%) operate in wholesale and retail trade.

In terms of regional distribution, Table 2 breaks down the sample firms into the same four size groups and 17 regions.⁵ On average in the four 2024 waves of the survey, 45% of the sample firms are concentrated in Madrid, Catalonia and Andalusia (with more than 2,000 firms in each of these regions), closely followed by the Valencia region (around 1,800 firms). Given the small sample size in some regions, Fernández Cerezo and Izquierdo⁶ recommend grouping the results into Nomenclature of Territorial Units for Statistics (NUTS) 1 level regions. The exception is Catalonia, which is analysed separately on account of its large sample size.

Moreover, the CBSO actively manages the sample. In particular, firms that have ceased their activities or have not responded to the survey for four consecutive quarters are regularly removed from the sample. They are replaced by other firms in the universe of available firms following the sampling methodology mentioned above.

⁴ In any event, firms for which there is no email address or that do not wish to participate in the survey are not taken into account.

⁵ Each firm is located in the province where it is headquartered, regardless of whether it has production sites elsewhere.

⁶ Fernández Cerezo, Alejandro, and Mario Izquierdo. (2023). "The regional dimension of the Banco de España Business Activity Survey". Economic Bulletin - Banco de España, 2023/Q3, 09.

Table 1

Number of sample firms in each quarter, by size and sector (average for the four 2024 waves of the survey) (a)

Sector (NACE Rev. 2 division level)	1-9 employees	10-49 employees	50-249 employees	≥250 employees	Total
Primary sector (1-3)	308	251	55	10	622
Mining and quarrying (5-9)	52	14	3	0	70
Manufacturing (10-33)	1,143	1,431	454	172	3,200
Energy and waste management (35-39)	162	106	35	14	317
Construction (41-43)	752	636	130	27	1,545
Wholesale and retail trade (45-47)	1,174	1,120	339	115	2,747
Transportation (49-53)	707	515	120	41	1,383
Accommodation and food services (55-56)	400	291	68	18	777
Information and communication (58-63)	163	173	81	36	452
Financial activities (64)	38	2	4	0	43
Real estate activities (68)	693	61	10	1	765
Prof., scient. and tech. activities (69-75)	852	346	104	40	1,341
Administrative activities (77-82)	439	194	85	46	764
Non-market services (85-88)	277	142	68	24	511
Recreational and other services (90-96)	268	133	39	11	451
Total	7,426	5,413	1,594	553	14,986

Table 2

Number of sample firms in each quarter, by size and region (average for the four 2024 waves of the survey)

	1-9 employees	10-49 employees	50-249 employees	≥250 employees	Total
01 Andalusia	1,074	708	181	64	2,027
02 Aragon	158	180	58	9	405
03 Asturias	89	86	20	7	201
04 Balearic Islands	336	190	33	7	566
05 Canary Islands	121	157	56	17	350
06 Cantabria	42	54	15	3	114
07 Castile-Leon	380	232	71	8	692
08 Castile-La Mancha	438	248	46	14	746
09 Catalonia	1,142	982	257	81	2,462
10 Valencia	884	678	187	60	1,809
11 Extremadura	497	158	16	4	675
12 Galicia	300	232	96	15	642
13 Madrid	1,020	756	304	183	2,263
14 Murcia	237	186	105	28	555
15 Navarre	63	58	25	9	155
16 Basque Country	437	274	59	32	801
17 Rioja	48	40	14	3	105
Unreported regions/Ceuta/Melilla	162	197	53	9	420
Total	7,426	5,413	1,594	553	14,986

a In the financial and insurance activities sector only the firms in sector 6420 (Activities of holding companies) classified in the CBSO as NFCs are considered, based on an analysis of the firm's economic and financial information.

3 Questionnaire design

The EBAE questionnaire contains a set of standard and one-off questions that provide qualitative information on economic activity. A key objective when designing the questionnaire is to ensure that it is not too complex for firms to complete, thereby lowering the response rate.

The standard questions are included in each wave of the survey and do not change from one quarter to the next. Table 3 shows the list of standard questions, indicating the quarter in which they were first included in the questionnaire and the possible responses. Questions 1-7 refer to firms' perception of the changes in each variable in the quarter under way and their expectations for the next quarter, while questions 8-10 ask firms about the outlook one year ahead. The questions about the constraints on business activity (question 11 onwards) refer to the quarter under way. As these are qualitative assessments, all the questions have five possible responses depending on the size of the change in each variable or of the impact of each constraint. These responses are translated into a five-point numerical scale (from -2 to 2).

The standard questions are accompanied by one-off questions about current topics of interest. For example, specific questions were included on the impact of the COVID-19 crisis in the first surveys, on the duration of supply bottlenecks between 2022 Q3 and 2023 Q2, and on the channels through which the war in Ukraine was impacting firms in 2022 Q2 and 2022 Q3.

In addition, modules that include questions on specific topics are regularly designed to collect more detailed information. In these cases, the evidence provided by the surveys may be useful to identify trends for which insufficient data are available. At the date of publication of this note, five special modules had been included in the EBAE on the following topics: the impact of climate change and the green transition on Spanish firms (2021 Q4),⁸ the impact of the energy crisis on the Spanish business sector (2023 Q1),⁹ the exposure of Spanish firms to imports of critical inputs from China (2023 Q4),¹⁰ business investment in Spain and its determinants (2024 Q2)¹¹ and the use of advanced technologies, such as artificial intelligence, in Spanish firms (2024 Q4).¹²

^{7 -2: &}quot;Significant decline"/"Significantly lower"/"Highly negative"; -1: "Slight decline"/"Slightly lower"/"Negative"; 0: "Stable"/
"Unchanged"/"Neutral"; +1: "Slight increase"/"Slightly higher"/"Positive"; +2: "Significant increase"/"Significantly higher"/"Highly positive".

⁸ Banco de España. (2022). "Chapter 4. The Spanish economy and the climate challenge". In Banco de España, *Annual Report* 2021, pp. 219-271.

⁹ Banco de España. (2023). "Chapter 4. Spain and the European Union in the face of the energy crisis". In Banco de España. *Annual Report 2022*, pp. 182-217.

¹⁰ Balteanu, Irina, Alejandro Fernández Cerezo and Javier Quintana. (2024). "Exposure of Spanish firms to imports of critical inputs from China: a survey-based analysis". *Economic Bulletin - Banco de España*, 2024/Q4, 02.

¹¹ Fernández Cerezo, Alejandro, Sergio Puente Díaz and Rubén Veiga Duarte. (2025). "Weak business investment in Spain following the pandemic: an analysis based on the Banco de España Business Activity Survey". Economic Bulletin - Banco de España, 2025/ Q1, 02.

¹² For preliminary results, see Fernández Cerezo, Alejandro, and Mario Izquierdo. (2024). "Banco de España Business Activity Survey: 2024 Q4". Economic Bulletin - Banco de España, 2024/Q4, 06.

Table 3		
Standard	EBAE	questionnaire

	Questions	First asked in			Possible res	oonses		
1 Turnover	1.a. How has your firm's turnover changed in the current quarter vis-à-vis the previous quarter?							
	1.b. How do you expect your firm's turnover to change from the current quarter to the next quarter?							
2 Employment	2.a. How has your firm's employment changed in the current quarter vis-à-vis the previous quarter?							
	2.b. How do you expect your firm's employment to change from the current quarter to the next quarter?							
3 Input prices (short-term)	3.a. How have the prices of your firm's main supplies/commodities (excluding wages) changed in the current quarter vis-à-vis the previous quarter?	2020 Q4						
	3.b. How do you expect the prices of your firm's main supplies/commodities (excluding wages) to change from the current quarter to the next quarter?							
4 Output prices (short-term)	4.a. How have the prices of the main products sold by your firm changed in the current quarter vis-à-vis the previous quarter?		Significant decline (-2)	Slight decline (-1)	Unchanged (0)	Slight increase (+1)	Significant in (+2)	ncrease
	4.b. How do you expect the prices of the main products sold by your firm to change from the current quarter to the next quarter?							
5 Investment	5.a. How has your firm's investment changed in the current quarter vis-à-vis the previous quarter?	2022 Q3						
	5.b.How do you expect your firm's investment to change from the current quarter to the next quarter?							
6 Profits	6.a. How have your firm's profits changed in the last three months?							
	6.b. How do you expect your firm's profits to change in the next three months?							
7 Debt level	7. How has your firm's debt level changed in the current quarter vis-à-vis the previous quarter?	2023 Q1					Significant increase (+2)	Not appli cable
3 Input prices (one year ahead)	8 How do you expect the prices of your firm's main supplies/commodities (excluding wages) to have changed a year from now?		Significantly	Slightly				
Output prices (one year ahead)	How do you expect the prices of the main products sold by your firm to have changed a year from now?	2021 Q4	lower (-2)	lower (-1)	Stable (0)	Slightly higher (+1)	Significantly (+2)	-
0 Labour costs (one year ahead)	10. How do you expect your firm's labour costs to have changed a year from now?							
Constraints on business activity	What effect are the following factors having on your firm's	activity?						
1	Economic policy uncertainty							
2	Pressure from competition							
3	Insufficient demand							
4	Labour shortages	2020 Q4						
5	Supplies from suppliers	Q4	Highly	Negative (-1)	Neutral (0)	Positive (+1)	Highly positive (+2	
6	Collections from customers		negative					
7	Access to financing		(-2)					
8	Cost of energy inputs	2021						
9	Interest expenses	Q4 2023 Q4						
		٠.						

4 Fieldwork

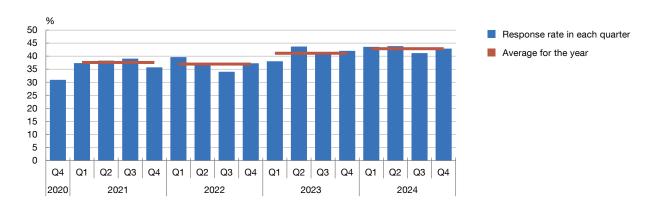
The collaboration requested of firms consists of filling in an online survey sent from a Banco de España email address. This online survey is hosted on a European System of Central Banks website called epsilon.escb.eu. The survey does not ask for information on firm-specific characteristics or data. To identify the responses, the Banco de España provides an individual and anonymised internal code that firms are asked to enter at the start of the survey. This code enables the information on these firms to be traced in terms of the location of their registered office, sector and size (without asking firms for this information), and subsequently to tie the responses to the respondent firms' information held in the CBI. Firms' responses are only used to analyse economic developments and under no circumstances are they published in a way that means firms can be identified individually.

The fieldwork for each wave generally begins in the second or third week of the second month in each quarter and ends 15 days later, so that the survey results can feed into the diagnosis of short-term economic developments for the quarterly macroeconomic projections exercise for the Spanish economy. As mentioned earlier, the survey is voluntary. A week after the launch of each wave, an email reminder is sent to firms that have not yet filled in the survey. Once the fieldwork has been completed, respondent firms receive a thank-you email and a dossier containing the press coverage following publication of the results on the Banco de España's website.¹³

To date, the level of collaboration has been satisfactory, with a fairly high response rate for this type of voluntary survey. Specifically, Chart 1 shows that the EBAE response rate has increased over the different waves, averaging almost 43% in 2024.

¹³ https://www.bde.es/wbe/en/areas-actuacion/central-balances/informes-productos-estadisticos/informes-nacionales/encues ta-ebae/.





Weights

The sample of firms to which the EBAE is sent tends to overrepresent the largest firms and the manufacturing sector, essentially reflecting their greater weight in the group of CBSOrespondent firms. Moreover, response rates are somewhat higher among large firms and CBSO-respondent firms. Therefore, in the final sample of EBAE responses there is also an overrepresentation of the largest firms and those belonging to the manufacturing sector. Table 4 shows the average number of respondent firms in each quarter of 2024, by four size groups and 15 sectors. By sector, some 1,400 manufacturing firms (22% of the total) completed the survey, compared with 277 firms in the accommodation and food service activities sector (4.3% of the total).

To ensure that the aggregate results of the EBAE are representative of the national total, four weights are constructed according to the same four size groups and number of sectors (15) mentioned earlier, to replicate both the distribution of the population of firms and the number of employees, using the Statistics for Social Security-registered firms (Estadistica de Empresas *Inscritas en la Seguridad Social*) for the year prior to the survey¹⁴ as the population reference.

¹⁴ These statistics provide the distribution by size and sector of both the number of firms and of total employment in the economy. The information drawn from the DIRCE only shows the distribution of the number of firms.

Table 4 Number of EBAE-respondent firms in each quarter, by size and sector (average for the four 2024 waves of the survey)

Sector (NACE Rev. 2 division level)	1-9 employees	10-49 employees	50-249 employees	≥250 employees	Total
Primary sector (1-3)	144	110	31	3	288
Mining and quarrying (5-9)	27	9	1	0	37
Manufacturing (10-33)	370	693	258	82	1,403
Energy and waste management (35-39)	68	49	21	9	146
Construction (41-43)	269	307	69	13	658
Wholesale and retail trade (45-47)	407	641	196	57	1,300
Transportation (49-53)	247	260	64	21	591
Accommodation and food services (55-56)	106	125	39	8	277
Information and communication (58-63)	68	89	43	14	213
Financial activities (64)	20	0	1	0	21
Real estate activities (68)	256	32	6	0	294
Prof., scient. and tech. activities (69-75)	295	182	54	16	547
Administrative activities (77-82)	143	102	43	19	307
Non-market services (85-88)	69	74	37	13	192
Recreational and other services (90-96)	71	61	23	6	161
Total	2,556	2,733	885	261	6,434

6 Access to microdata

Microdata databases are a valuable source of information on economic agents' behaviour and using them can help gain a better and deeper understanding of the economic situation. Mindful that economic research is increasingly reliant on granular information, in 2019 the Banco de España created its BELab data laboratory.

BELab provides access to the anonymised microdata of the EBAE, adding economic and financial information from the CBI. BELab provides access to these microdata in a controlled environment that ensures data confidentiality.¹⁵

¹⁵ See the Microdata from Survey on Business Activity (EBAE).