



02nd January 2023
BUSINESS AND CONSUMER SURVEYS
December 2022

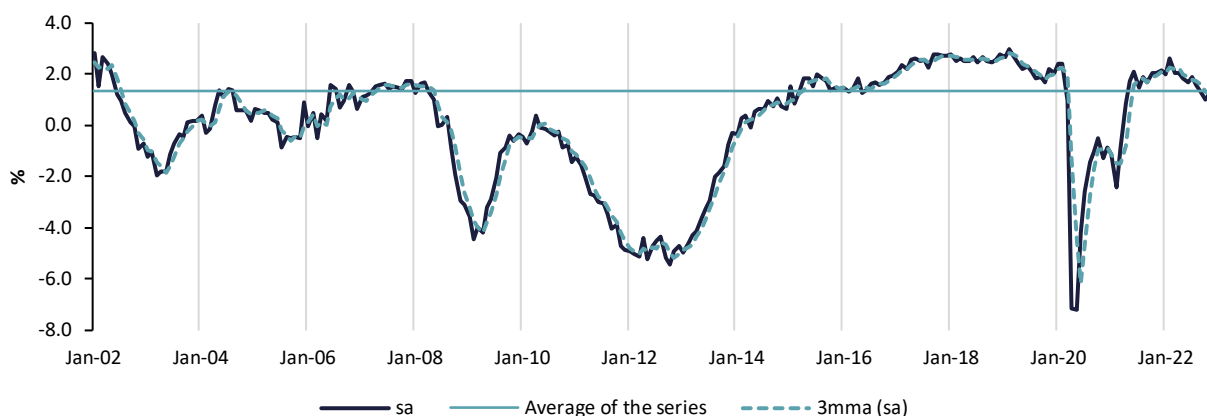
CONSUMER CONFIDENCE INDICATOR INCREASES AND ECONOMIC CLIMATE INDICATOR STABILIZES

The Consumer confidence increased in December¹, interrupting the negative profile of the previous three months. The balance of Consumer opinions on the past evolution of the price level decreased in December for the second consecutive month, after reaching the series' maximum value in October, following the markedly ascending trajectory initiated in March of 2021.

The economic climate indicator² stabilized in December, interrupting the downward movement started in March. The confidence indicators of the Manufacturing Industry and Trade increased compared to November, while the indicators in Construction and Public Works and Services decreased.

The entrepreneurs' expectations regarding the future evolution of selling prices decreased in Manufacturing Industry, in Trade and in Construction and Public Works, while in Services this balance increased, although remaining at a level below the maximum of the recorded series in April.

Figure 1. Economic climate indicator
- Manufacturing Industry, Construction and Public Works, Trade and Services-



¹ The collection period (see final notes) of the consumer survey occurred from 01 to 15 of December (working days), in the case of the consumer survey, and from 01 to 22 of December in the case of business surveys.

² The economic climate indicator summarizes the balances of business surveys' questions.



Consumer Survey

The Consumer confidence indicator increased in December, interrupting the negative profile of the previous three months which had resulted, in November, in the lowest value since April 2020 when the pandemic began. The evolution of the indicator in the last month resulted from the positive contributions of the expectations on the future evolution of the country's economic situation and on the households' financial situation, and the opinions on the past evolution of households' financial situation. In the opposite direction, expectations regarding the future evolution of major purchases by households registered a significant negative contribution.

The balance of perspectives regarding the future evolution of the country's economic situation increased in November and December, significantly in the last month, after decreasing in the previous two months, when it reached the lowest value since the start of the pandemic in April 2020.

The balance of expectations about household's future financial situation increased in the last two months, after the decreases of September and October, more markedly in the first case, having registered in these two months the lowest values since the start of the pandemic in April 2020.

The balance of opinions on the past evolution of the price level decreased in November and December, after registering the series' maximum value in the previous month, following the markedly ascending trajectory initiated in March of 2021. The balance of expectations regarding the future evolution of the price level decreased significantly in November and December, after the increases of the previous two months, reaching the lowest value since October of 2021.

Figure 2. Consumer confidence indicator

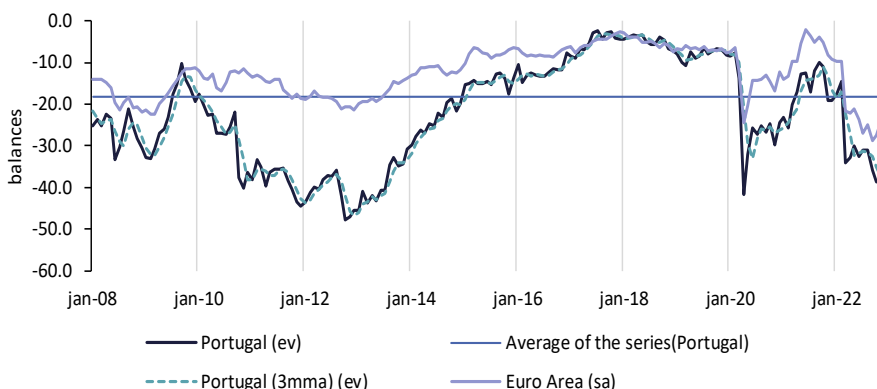
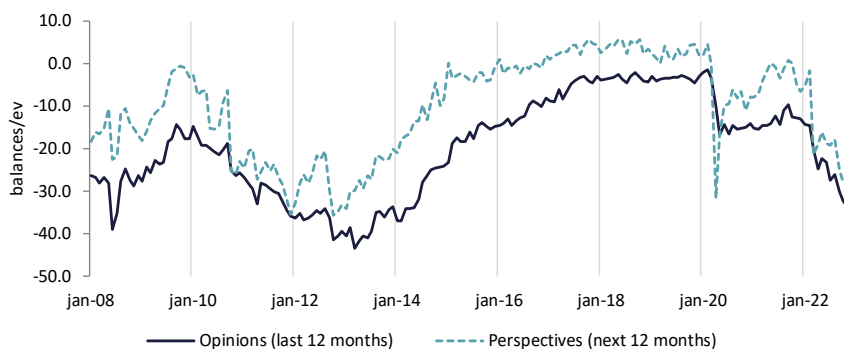


Figure 3. Opinions and expectations about household's financial situation





Manufacturing Industry Survey

The Manufacturing Industry confidence indicator increased in November and December, after having decreased in October. The behaviour of the indicator reflected the positive contribution of the opinions on the evolution of the overall order books in the last three months and the firm's production perspectives over the next three months, while the opinions on the current stocks of finished products contributed negatively.

The indicator increased in Intermediate Goods and in Investment Goods and decreased in Consumer Goods.

The balance of opinions on current overall order books increased in December, after having decreased in October and November. Opinions regarding domestic order books, considering firms with production oriented to the domestic market, recovered in November and December, after deteriorating in the previous month. Opinions on export order books, considering firms with production oriented to the foreign market, worsened in the reference month, after having recovered in the previous month.

The balance of opinions on the evolution of sale prices decreased in November and December, after increasing in September and October, prolonging the downward trend recorded between May and August. This balance decreased in the groups of Intermediate Goods and Consumer Goods and increased in Investment Goods.

Figure 4. Manufacturing industry confidence indicator

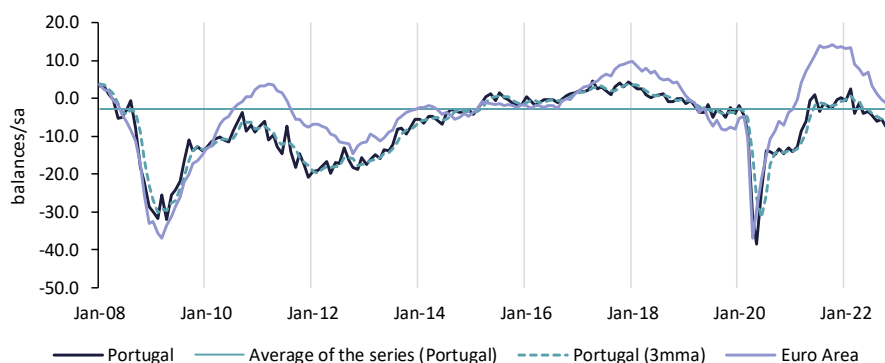
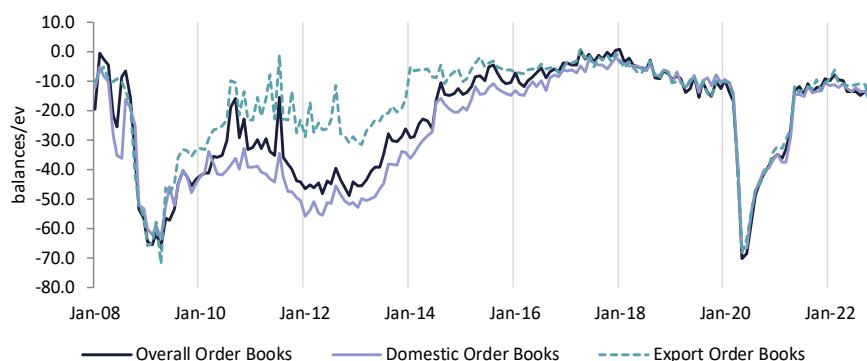


Figure 5. Opinions on current overall order books





Construction and Public Works Survey

The confidence indicator of Construction and Public Works decreased in December, after increasing in November. The increase in the last month reflected the negative contribution of the balance of opinions on current order books, since the perspectives on employment component have increased.

The confidence indicator decreased in the divisions of Construction of Buildings and Civil Engineering, particularly in the former case, and increased in the division of Specialized Construction Activities.

The balance of opinions on the firm's activity in the last three months increased slightly in December, after having decreased significantly in November.

The balance of perspectives regarding the selling prices charged by the firm in the next three months decreased between October and December, particularly in the last month, moving away from the maximum value of the series reached in June.

Figure 6. Construction and Public Works confidence indicator

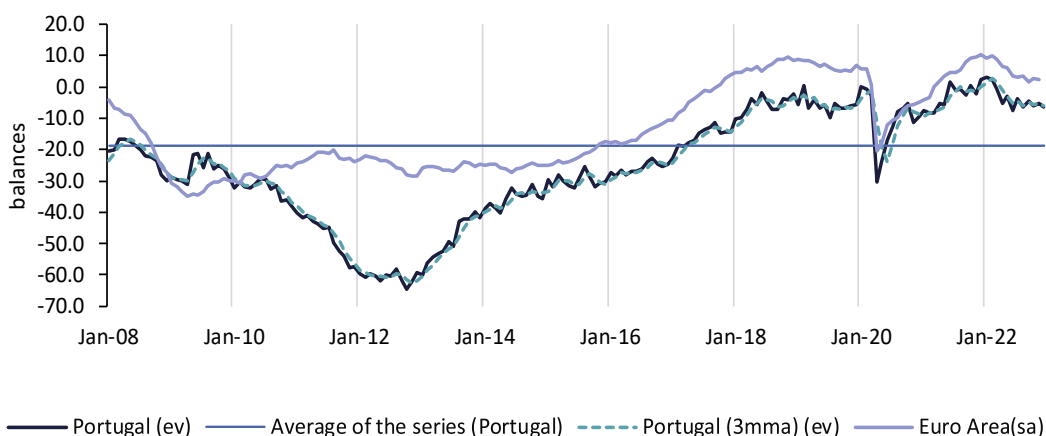
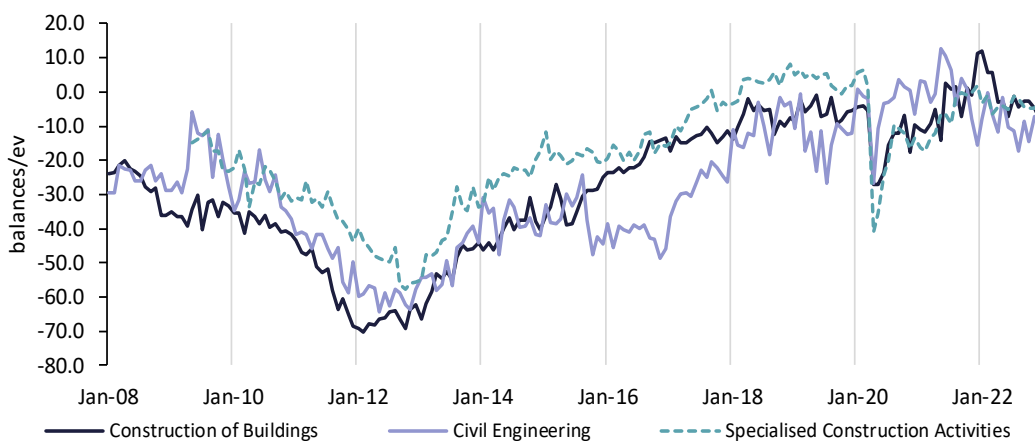


Figure 7. Construction and Public Works confidence indicators by NACE divisions





Trade Survey

The trade confidence indicator increased in November and December, after the decline observed in October. The evolution of the indicator resulted from the positive contribution of opinions on the volume of sales, with opinions on the current volume of stocks and the perspectives of the firm's activity over the next three months contributing negatively. In December, the confidence indicator increased in Retail Trade and Wholesale Trade.

The balance of opinions on the volume of sales increased significantly in December, after having decreased considerably in November. In turn, the perspectives of the firm's activity worsened in December, after having recovered significantly in November.

The balance of opinions on selling prices evolution compared to the previous month and the balance of prices expectations over the next three months declined in November and December, after having increased in September and October, moving away from the series maximums reached in April and March, respectively.

Figure 8. Trade confidence indicator

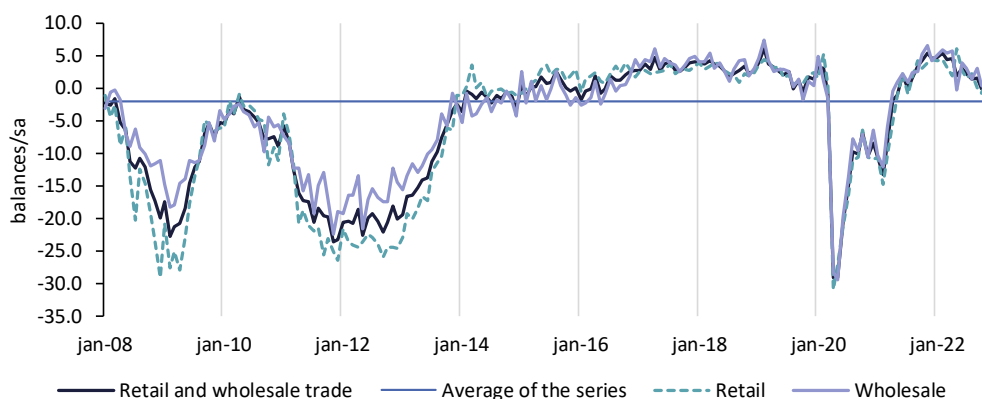
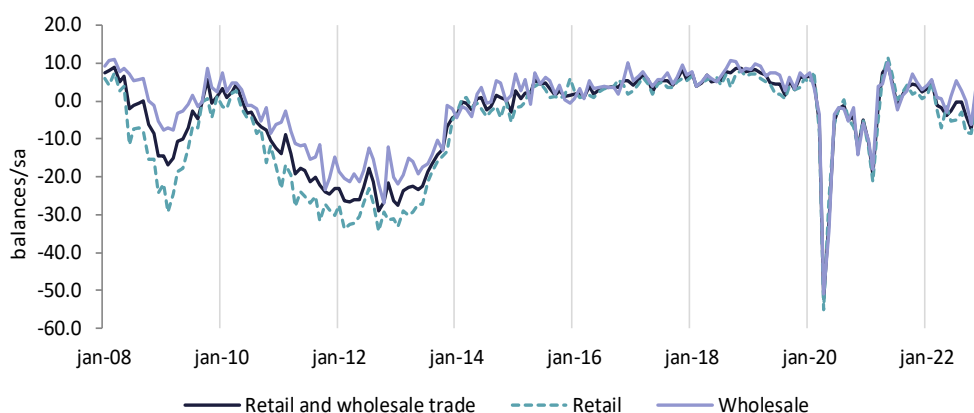


Figure 9. Perspectives on business activity (sales) over the next three months





Services Survey

The Services' confidence indicator decreased in December, after increasing in the previous month, resuming the downward movement recorded since June 2021. The indicator's behaviour resulted from the negative contribution of the opinions on the evolution of the business situation and on the evolution of the order books, more expressive in the first case, having the perspectives on the evolution of demand contributed positively.

In December, the confidence indicator decreased in six of the eight sections of Services, with emphasis on the sections of Information and communication activities and Arts, entertainment and recreation activities.

The balance of perspectives on the evolution of demand increased in the last two months, expressively in November, suspending the downward trajectory started in March 2022.

The balance of expectations for prices of services increased in November and December, after having decreased in October, remaining, even so, at a level below the maximum of the series registered in April.

Figure 10. Services confidence indicator

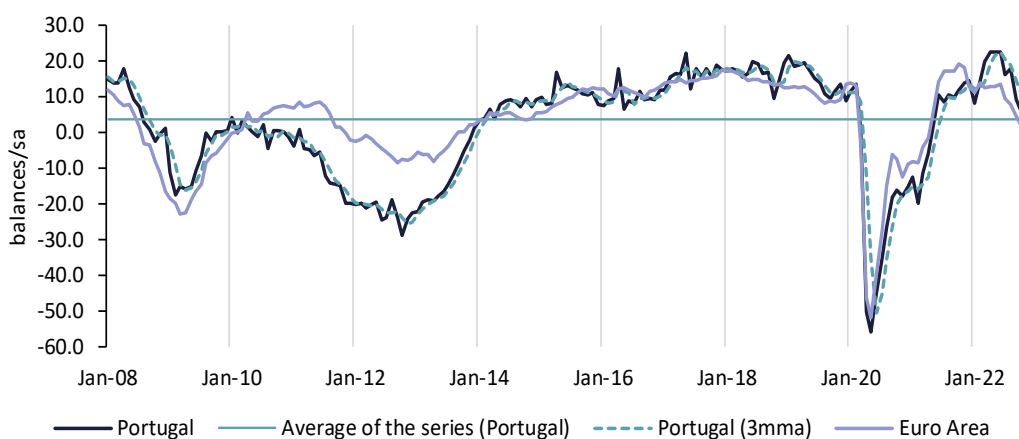
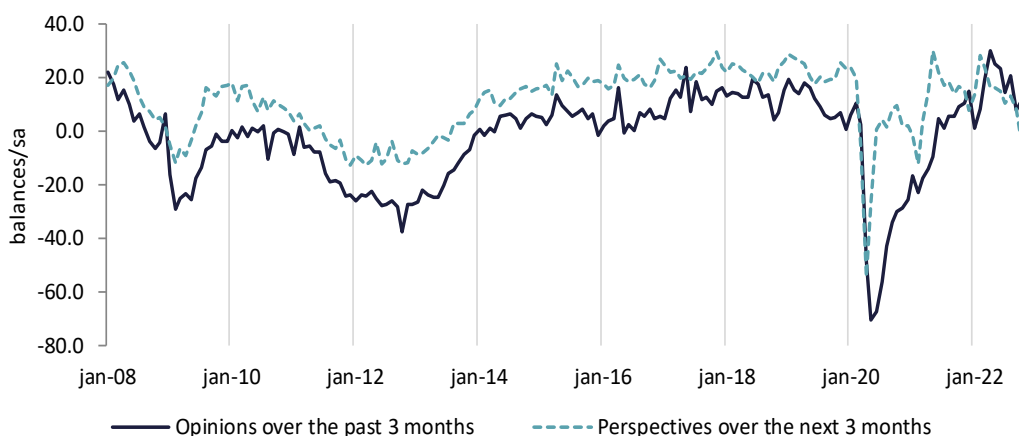


Figure 11. Opinions and perspectives on the evolution of demand (order books)





Monthly series of Consumer and Business Surveys

Figure 12. Confidence and climate economic indicators

	Unit	Minimum		Maximum		2021	2022											
		Value	Date	Value	Date	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Confidence indicator																		
Consumers	bal/ev	-47.8	Oct-12	-0.1	Sep-97	-19.2	-17.7	-14.5	-34.1	-32.9	-30.1	-32.5	-31.1	-31.1	-35.8	-38.6	-38.7	-37.1
Manufacturing industry	bal/sa	-38.6	May-20	19.4	Mar-87	0.1	-0.6	2.5	-3.9	-1.1	-4.1	-3.6	-4.5	-6.1	-5.6	-7.3	-6.9	-6.6
Construction and public works	bal/ev	-64.5	Oct-12	25.6	Sep-97	2.5	3.0	2.4	-0.5	-5.4	-2.9	-7.4	-3.5	-6.5	-4.4	-5.8	-5.3	-6.4
Trade	bal/sa	-29.1	Apr-20	11.7	Jun-98	4.6	4.9	5.5	4.4	4.6	2.0	3.1	2.3	1.4	1.7	0.0	0.8	1.2
Services	bal/sa	-56.0	May-20	29.5	Jun-01	14.4	8.3	14.7	19.8	22.7	22.6	22.7	16.1	18.0	9.2	6.1	7.4	3.9
Economic climate indicator																		
	%/sa	-7.2	May-20	5.5	Apr-98	2.2	2.0	2.6	2.0	2.1	1.9	1.7	1.9	1.6	1.3	1.0	1.3	1.3

Figure 13. Monthly series of Consumer Survey

	Uni.	Mínimo		Máximo		2021	2022											
		Valor	Data	Valor	Data	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Indicador de confiança (a+b+c+d)/4																		
Situação económica do país nos próximos 12 meses (c)	sre/ve	-47.8	Oct-12	-0.1	Sep-97	-19.2	-17.7	-14.5	-34.1	-32.9	-30.1	-32.5	-31.1	-31.1	-35.8	-38.6	-38.7	-37.1
Situação financeira do agregado familiar nos últimos 12 meses (a)	sre/ve	-72.7	Apr-20	16.6	Jun-17	-25.2	-22.4	-12.0	-60.1	-53.1	-45.6	-50.2	-49.1	-47.9	-51.9	-60.2	-59.4	-52.4
Situação financeira do agregado familiar nos próximos 12 meses (b)	sre/ve	-43.5	Mar-13	0.5	Aug-99	-12.9	-14.3	-14.6	-20.0	-24.7	-22.2	-23.3	-27.5	-26.0	-30.2	-32.2	-33.8	-32.3
Realização de compras importantes nos próximos 12 meses (d)	sre/ve	-35.6	Oct-12	8.6	Feb-99	-6.5	-5.1	-1.7	-21.4	-19.0	-16.0	-18.8	-19.3	-17.9	-25.0	-28.0	-27.2	-23.8
	sre/ve	-51.6	Apr-20	-6.4	Sep-97	-32.2	-28.9	-29.6	-35.1	-34.8	-36.5	-37.6	-28.4	-32.6	-36.1	-34.0	-34.2	-39.8
Situação económica do país nos últimos 12 meses	sre/vcs	-78.0	Nov-22	19.9	Oct-17	-50.5	-51.0	-39.8	-52.0	-60.0	-61.9	-63.2	-64.3	-65.4	-72.5	-77.8	-78.0	-73.4
Realização de compras importantes nos últimos 12 meses	sre/vcs	-88.0	Dec-08	-14.5	Sep-97	-63.0	-60.6	-55.4	-67.2	-72.9	-71.6	-76.1	-72.2	-76.1	-80.7	-82.0	-78.5	-81.9
Poupança no momento atual	sre/ve	-55.1	Nov-22	-0.2	Sep-97	-35.9	-32.0	-31.8	-42.3	-47.0	-46.0	-45.8	-45.7	-46.6	-50.9	-49.8	-55.1	-54.4
Poupança nos próximos 12 meses	sre/ve	-43.4	Nov-22	0.9	Oct-97	-22.3	-17.4	-22.2	-33.2	-34.5	-36.0	-33.9	-35.4	-31.7	-39.1	-41.0	-43.4	-42.6
Desemprego próximos 12 meses	sre/ve	-20.0	Jun-17	85.5	Feb-09	20.4	16.7	4.6	26.7	30.4	24.0	24.0	21.4	22.9	28.3	34.6	42.8	38.0
Preços nos últimos 12 meses	sre/ve	-14.6	Sep-09	87.0	Oct-22	47.6	54.1	59.9	61.8	74.7	76.8	79.2	83.1	83.1	83.2	87.0	86.2	83.9
Preços próximos 12 meses	sre/vcs	-7.4	Dec-15	80.7	Mar-22	44.9	42.6	42.8	80.7	65.9	56.2	59.4	48.2	43.5	46.4	53.5	44.5	34.1

Figure 14. Monthly series of Manufacturing Industry Survey

	Unit	Minimum		Maximum		2021	2022											
		Value	Date	Value	Date	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Confidence Indicator (a+b-c)/3																		
Consumer goods	bal/sa	-38.6	May-20	19.4	Mar-87	0.1	-0.6	2.5	-3.9	-1.1	-4.1	-3.6	-4.5	-6.1	-5.6	-7.3	-6.9	-6.6
Investment goods	bal/ev	-27.0	Apr-20	12.6	Jan-99	-0.5	-2.4	1.9	-3.0	-0.9	-0.6	-0.8	-1.0	-5.1	-4.1	-3.0	-5.1	-7.1
Intermediate goods	bal/sa	-36.0	Apr-20	24.3	Feb-07	-5.9	-0.7	1.6	-8.2	-7.0	-8.1	-6.0	-6.1	0.7	-2.7	-3.5	-3.5	-2.2
	bal/sa	-50.3	May-20	17.6	Jan-95	2.0	0.9	2.5	-1.5	1.8	-1.9	-3.7	-5.9	-8.5	-9.1	-13.6	-12.2	-9.7
Current overall order books (a)																		
Consumer goods	bal/ev	-70.2	May-20	14.6	Mar-98	-9.3	-9.7	-7.9	-9.6	-9.6	-13.4	-13.4	-13.4	-14.8	-13.3	-15.5	-16.0	-14.8
Investment goods	bal/ev	-60.9	May-20	6.1	Dec-17	-8.1	-11.4	-8.4	-8.8	-10.9	-10.3	-9.4	-8.7	-11.4	-8.3	-9.7	-10.8	-7.7
Intermediate goods	bal/ev	-84.0	May-20	33.8	Jan-08	-19.6	-15.4	-13.5	-15.3	-18.1	-25.2	-19.8	-22.3	-9.6	-14.4	-11.8	-8.4	-8.2
	bal/ev	-72.4	Jun-20	33.8	Mar-98	-5.2	-5.8	-4.9	-7.5	-4.7	-10.1	-13.4	-12.7	-19.8	-16.5	-21.5	-23.4	-23.1
Production over next 3 months (b)																		
Consumer goods	bal/sa	-52.3	Apr-20	34.8	Feb-87	11.1	9.3	13.5	-1.5	6.3	0.6	3.3	3.5	0.4	-1.1	-3.0	-0.3	-0.1
Investment goods	bal/sa	-47.8	Apr-20	39.5	Aug-98	6.9	5.0	13.6	0.6	8.8	10.2	7.5	8.0	0.8	-4.3	0.9	-1.2	-7.9
Intermediate goods	bal/ev	-44.9	Feb-09	50.6	Aug-00	8.9	16.1	17.3	-6.5	0.5	-0.1	3.9	7.0	12.7	9.3	3.4	-0.7	4.6
	bal/sa	-58.6	Apr-20	32.6	Jan-97	11.2	9.7	9.1	2.5	7.9	1.9	2.3	-0.4	-0.8	-6.7	-12.9	-6.5	-0.7
Current stock finished products (c)																		
Consumer goods	bal/ev	-17.6	Jan-08	22.5	Jun-93	1.6	1.4	-1.8	0.7	0.0	-0.6	0.6	3.5	3.9	2.4	3.4	4.4	5.0
Investment goods	bal/ev	-11.5	Jan-10	22.3	Aug-07	0.3	1.0	-0.4	0.9	0.7	1.9	0.6	2.3	4.7	-0.3	0.1	3.2	5.8
Intermediate goods	bal/ev	-37.9	Jan-09	22.4	Jun-10	7.1	2.6	-0.9	2.8	3.5	-0.9	1.9	2.9	0.9	2.8	2.2	1.5	2.9
	bal/ev	-30.8	Jan-08	36.5	May-20	-0.1	1.1	-3.4	-0.5	-2.3	-0.1	4.7	4.7	4.2	6.4	6.6	6.6	5.4
Firm's employment next 3 months																		
	bal/ev	-28.4	Apr-20	13.0	Sep-17	8.2	8.8	8.8	6.7	6.2	6.8	4.8	5.9	6.4	3.3	2.1	11.6	11.2
Selling prices next 3 months																		
	bal/sa	-25.4	Apr-20	42.5	Apr-22	32.2	31.2	26.4	39.5	42.5	34.2	29.7	24.1	22.8	28.0	30.6	25.1	20.7



Figure 15. Monthly series of Construction and Public Works Survey

	Unit	Minimum		Maximum		2021	2022											
		Value	Date	Value	Date	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Confidence Indicator (a+b)/2	bal/ev	-64.5	Oct-12	25.6	Sep-97	2.5	3.0	2.4	-0.5	-5.4	-2.9	-7.4	-3.5	-6.5	-4.4	-5.8	-5.3	-6.4
Construction of buildings	bal/ev	-70.2	Feb-12	26.4	Sep-97	11.1	11.9	5.6	5.8	-3.1	-2.7	-7.3	-1.3	-4.3	-2.6	-2.6	-4.8	-7.5
Civil engineering	bal/ev	-64.3	May-12	16.7	Jul-97	-15.6	-7.8	-0.2	-6.5	-11.8	-1.6	-10.4	-11.4	-17.1	-8.7	-14.4	-7.1	-8.1
Specialised construction activities	bal/ev	-57.7	Oct-12	8.2	Dec-18	1.9	-3.4	-1.0	-6.5	-4.3	-4.2	-5.2	-1.2	-2.1	-4.2	-4.7	-4.6	-3.4
Current overall order books (a)	bal/ev	-77.5	Oct-12	23.3	Sep-97	-7.6	-8.1	-9.3	-13.0	-16.7	-13.3	-16.6	-13.7	-14.7	-12.9	-13.5	-11.2	-14.1
Construction of buildings	bal/ev	-85.6	Oct-12	22.1	Sep-97	3.6	2.7	-5.0	-6.5	-11.9	-10.0	-11.8	-10.3	-11.6	-8.5	-7.8	-10.1	-13.6
Civil engineering	bal/ev	-71.5	Jul-12	12.1	Jul-97	-32.5	-23.2	-10.6	-21.6	-27.8	-17.4	-28.8	-30.1	-33.4	-26.0	-31.8	-13.2	-21.5
Specialised construction activities	bal/ev	-73.3	Oct-12	2.1	Jul-19	-7.4	-14.7	-15.4	-17.3	-16.2	-15.7	-15.3	-6.9	-5.3	-10.2	-9.1	-11.5	-9.3
Employment next 3 months (b)	bal/ev	-51.8	Jan-12	35.9	Jun-97	12.6	14.2	14.0	12.0	5.9	7.6	1.8	6.7	1.6	4.0	1.8	0.7	1.2
Construction of buildings	bal/ev	-59.0	Jan-12	37.6	Jun-97	18.7	21.0	16.1	18.0	5.7	4.7	-2.8	7.8	3.0	3.2	2.6	0.5	-1.4
Civil engineering	bal/ev	-61.7	May-12	31.2	Jul-01	1.2	7.5	10.1	8.6	4.2	14.1	8.1	7.3	-0.9	8.7	3.0	-1.0	5.3
Specialised construction activities	bal/ev	-43.6	Dec-12	16.3	Dec-18	11.3	7.9	13.4	4.3	7.6	7.4	4.8	4.4	1.2	1.7	-0.3	2.3	2.4
Activity past 3 months	bal/ev	-65.5	Apr-12	26.7	May-98	10.7	5.7	4.5	3.8	3.2	2.8	-0.7	3.6	6.9	3.8	4.3	-0.3	-0.1
Selling prices next 3 months	bal/ev	-29.3	Aug-12	43.0	Jun-22	35.9	33.8	35.4	42.4	41.9	40.0	43.0	39.2	39.2	40.0	39.8	39.7	31.3

Figure 16. Monthly series of Trade Survey

	Unit	Minimum		Maximum		2021	2022											
		Value	Date	Value	Date	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Confidence indicator (a+b-c)/3	bal/sa	-29.1	Apr-20	11.7	Jun-98	4.6	4.9	5.5	4.4	4.6	2.0	3.1	2.3	1.4	1.7	0.0	0.8	1.2
Wholesale	bal/sa	-29.5	May-20	13.1	Apr-98	4.3	5.2	5.9	5.5	5.8	-0.2	3.9	3.0	1.5	3.2	0.4	-0.1	0.3
Retail	bal/sa	-31.0	Apr-20	13.1	Jul-98	4.5	4.3	4.5	3.3	1.9	6.1	2.8	1.7	2.4	0.1	-0.7	1.2	1.6
Business activity past 3 months (a)	bal/sa	-55.3	Jun-20	16.4	Feb-89	5.1	4.4	6.7	8.9	12.1	4.8	8.1	4.1	-0.4	4.7	5.7	-0.3	5.1
Wholesale	bal/sa	-57.5	Jun-20	19.3	Feb-89	8.3	9.5	11.8	14.6	16.7	2.4	11.2	6.8	0.9	11.9	12.0	1.5	5.9
Retail	bal/sa	-58.5	Aug-12	19.2	Apr-99	1.3	-0.3	0.1	2.4	5.7	9.4	5.3	1.3	0.7	-2.0	-1.4	-2.3	3.8
Business activity next 3 months (b)	bal/sa	-52.1	Apr-20	40.2	Oct-89	2.3	3.4	5.4	-1.2	-1.8	-3.9	-2.6	-0.2	-0.4	-3.9	-7.3	1.1	-1.6
Wholesale	bal/sa	-51.0	Apr-20	49.6	Oct-89	3.0	4.1	5.7	1.1	0.7	-2.9	1.1	5.3	2.6	-0.1	-6.3	2.8	0.1
Retail	bal/sa	-55.1	Apr-20	40.8	Jul-94	0.7	1.5	5.2	-2.4	-7.0	-1.5	-5.2	-4.9	-2.8	-8.3	-8.5	-1.8	-4.2
Current volume of stocks (c)	bal/ev	-14.9	Feb-13	26.4	Jul-90	-6.5	-6.8	-4.2	-5.4	-3.5	-5.2	-3.8	-2.8	-5.0	-4.2	-1.6	-1.5	0.0
Wholesale	bal/ev	-15.3	Oct-12	28.2	Jul-90	-1.6	-1.9	-0.3	-0.9	0.1	0.0	0.6	3.0	-1.0	2.3	4.5	4.5	5.2
Retail	bal/ev	-17.5	Feb-13	32.6	Jul-89	-11.3	-11.7	-8.2	-9.9	-7.0	-10.3	-8.3	-8.7	-9.1	-10.6	-7.8	-7.6	-5.2
Orders next 3 months	bal/sa	-45.2	Apr-20	20.4	Aug-98	-1.5	-1.7	1.5	-0.5	-4.3	-2.3	-7.2	-2.4	-5.6	-5.8	-6.8	-3.3	-3.7
Employment next 3 months	bal/ev	-29.2	Oct-12	22.8	Sep-97	-1.3	1.4	3.5	0.1	1.6	3.2	1.8	4.0	0.8	0.4	0.8	0.1	0.7
Selling prices past month	bal/sa	-11.7	Apr-09	41.0	Apr-22	21.6	20.0	28.0	39.1	41.0	35.1	38.4	31.0	25.4	33.6	39.1	32.6	26.1
Selling prices next 3 months	bal/sa	-11.8	Jul-03	41.2	Mar-22	22.7	24.1	27.7	41.2	38.8	34.2	37.1	29.8	25.0	34.0	39.3	35.0	27.7

Figure 17. Monthly series of Services Survey

	Unit	Minimum		Maximum		2021	2022											
		Value	Date	Value	Date	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Confidence indicator (a+b+c)/3	bal/sa	-56.0	May-20	29.5	Jun-01	14.4	8.3	14.7	19.8	22.7	22.6	22.7	16.1	18.0	9.2	6.1	7.4	3.9
Business activity past 3 months (a)	bal/sa	-70.8	May-20	33.4	Jun-01	20.4	10.1	7.3	16.3	21.6	26.4	29.7	23.2	19.9	11.5	9.4	10.6	2.2
Demand next 3 months (b)	bal/sa	-54.3	Apr-20	34.6	Jan-02	7.7	13.8	28.4	23.9	16.2	16.2	15.1	10.7	13.1	8.4	-2.3	6.5	7.9
Demand past 3 months (c)	bal/sa	-70.3	May-20	30.3	Apr-22	15.2	1.0	8.4	19.3	30.3	25.1	23.2	14.5	20.9	7.9	11.1	5.1	1.6
Employment next 3 months	bal/sa	-29.4	Apr-20	19.8	Aug-19	7.8	10.1	13.2	14.2	12.7	11.8	14.3	7.4	9.9	8.3	5.4	7.5	0.7
Selling prices next 3 months	bal/sa	-23.4	Apr-20	25.0	Apr-22	14.1	15.3	18.5	24.2	25.0	19.8	23.8	20.4	13.4	15.8	14.3	16.8	20.0



METHODOLOGICAL NOTE

The Business and Consumer Qualitative Surveys published by Statistics Portugal are developed in the framework of the harmonized EU Business and Consumer Surveys Programme of the European Commission (EC) DG-ECFIN (Directorate-General for Economic and Financial Affairs) and are financially supported in the framework of the agreement signed between these two institutions. The questionnaires are harmonized among the European countries, as well as the respective confidence indicators' methodology. The surveys' results are sent to the EC in effective values, and, therefore, the seasonally adjusted values published by the EC are computed by this entity. The seasonal adjustment method used by the EC is available on the user guide, accessible in:

https://ec.europa.eu/info/files/user-guide-joint-harmonised-eu-programme-business-and-consumer-surveys_en

The seasonal adjustment uses the X13-Arima method (combination of moving averages process and auto-regressive integrated moving average models) developed in the JDemetra+, software provided by Eurostat. This application relies on the use of probabilistic models to correct seasonal effects from the original series. The seasonal treatment is updated for monthly and quarterly series in January, for consumer survey, and in May, for business surveys, which might result on a revision of the series previously published.

The use of moving averages smoothes out the series by removing the irregular movements, allowing the detection of the short-term trends. Since the average is not centered (the information is used to analyze the evolution of the last month) there is a small lag compared with the trend that is supposed to detect. In order to compare the difference between original and moving average series, the graphical representation of the confidence indicators presents both types of series.

The balances of the questions are the difference between the positive and negative answers, that is $\text{Balance} = \text{\%answer(+)} - \text{\%answer(-)}$. In the Consumer Survey, there are questions with more than one option of positive/negative answer. In these cases, to the most positive/negative answers is given the weight 1 and to the others the weight 0.5, that is $\text{Balance} = [\text{\%answer(++)} * 1 + \text{\%answer(+)} * 0.5] - [\text{\%answer(--)} * 1 + \text{\%answer(-)} * 0.5]$. The percentage of answers that correspond to "equal" is not considered.

The analysis of this press release is based on monthly series of effective values (raw or seasonally adjusted data), which allows for a clearer identification of very short-term movements, particularly relevant in the context of worsening impacts of the COVID-19 pandemic. The monthly series in three-months moving average (3mma) and the quarterly series in two-quarters moving averages (2qma) are available in the excel file that supports this press release.

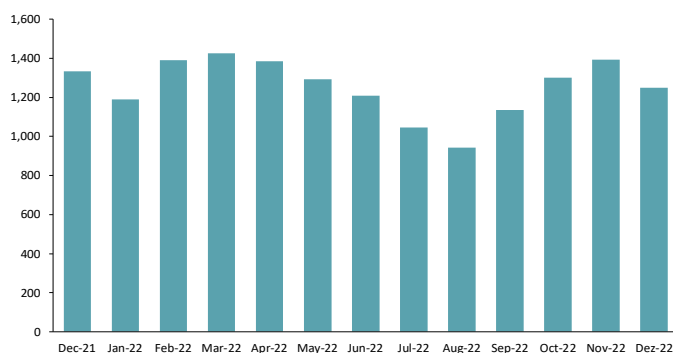


INFORMATION ON DATA COLLECTION

In the results obtained from business and consumer surveys for the collection of December 2022, the data collecting period occurred from 01 to 15 in the case of the consumer survey, with 1249 responses obtained (telephone interviews) and from 01 to 253 for business surveys ([Webing](#)).

The distribution of the number of responses by data collection's months to the consumer is presented in the next figure.

Figure 18. Consumer Survey - Number of responses by data collection's months



The response and weighted response rates for business surveys were:

Figure 19. Response and weighted response rates

Business Surveys	Response Rate				Weighted Response Rate ⁽²⁾			
	2021 ⁽¹⁾	October 2022	November 2022	December 2022	2021 ⁽¹⁾	October 2022	November 2022	December 2022
Manufacturing Industry	77.6%	79.2%	82.5%	79.2%	83.1%	89.7%	93.8%	92.3%
Construction and Public Works	66.2%	73.7%	73.0%	72.5%	83.1%	90.4%	91.0%	90.5%
Trade	73.2%	78.4%	78.3%	78.8%	93.1%	92.0%	93.5%	95.0%
Services	73.7%	77.0%	77.3%	77.1%	80.9%	94.0%	94.0%	95.3%

⁽¹⁾ Annual average.

⁽²⁾ Corresponds to the ratio between the turnover of the firms that answered to the survey and the turnover of all the firms in the sample.

The following graphs show the distribution of the number of responses by data collection's months to the business surveys.



Figure 20. Manufacturing Industry Survey - Number of responses by data collection's months

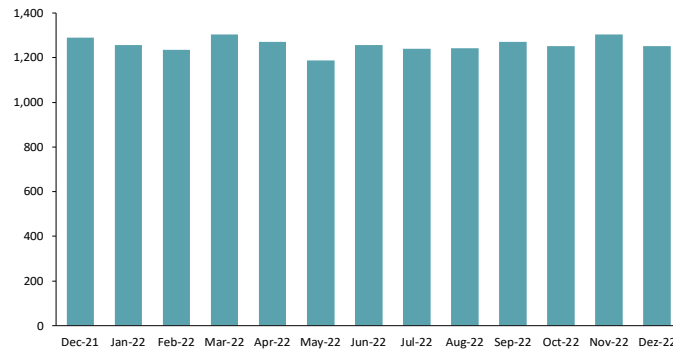


Figure 21. Construction and Public Works - Number of responses by data collection's months

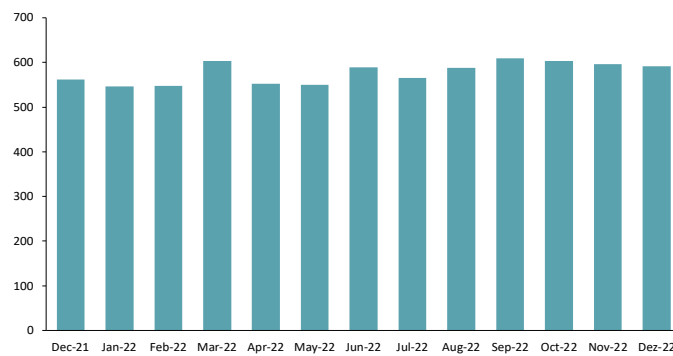


Figure 22. Trade Survey - Number of responses by data collection's months

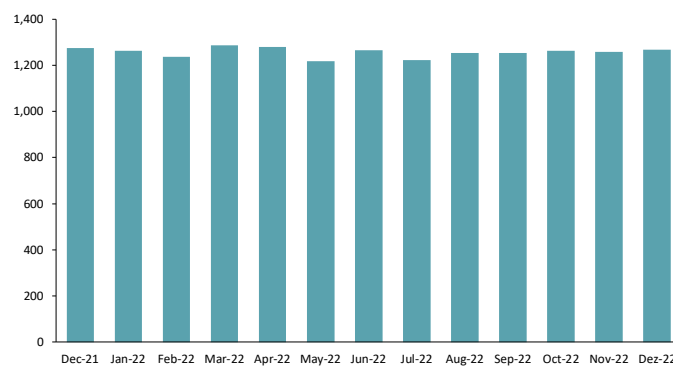
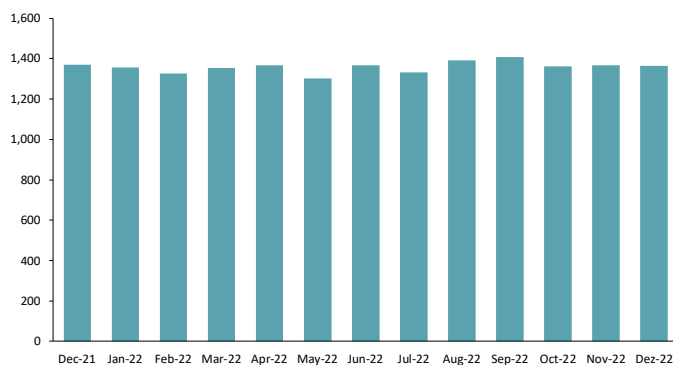




Figure 23. Services Survey - Number of responses by data collection's months



It should also be noted that the representativeness of the branches of activity covered by Business Surveys, considering the Gross Added Value (GVA) at current prices (Final Annual National Accounts) as the economic variable, is as follows:

Figure 24. Weight of the GVA of the branches

Qualitative Business Surveys	Weight of the GVA of the branches of each survey in the total GVA of the economy	
	2019	2020
Manufacturing Industry	13.7%	13.8%
Construction and Public Works	4.4%	4.7%
Trade	13.3%	13.1%
Services	38.1%	35.8%

ECONOMIC CLIMATE INDICATOR

Synthetic Indicator estimated using balances of questions from the Manufacturing Industry, Trade, Construction and Public Works and Services Surveys. The method for this indicator uses the factor analysis and the estimated series (the common component) is calibrated using the GDP change rates. The questions that integrate the indicator are:

Qualitative Manufacturing Industry survey

- How has your production developed over the past 3 months? It has... 1. + increased; 2. = remained unchanged; 3. - decreased.
- Do you consider your current overall order books to be...? 1. + more than sufficient (above normal); 2. = sufficient (normal for the season); 3. - not sufficient (below normal).
- Do you consider your current export order books to be...? 1. + more than sufficient (above normal); 2. = sufficient (normal for the season); 3. - not sufficient (below normal).
- How do you expect your production to develop over the next 3 months? It will... 1. + increase; 2. = remain unchanged; 3. - decrease. (seasonally adjusted)

Qualitative Trade survey

- How has (have) your business activity (sales) developed over the past 3 months? It has... (They have...) 1. + improved (increased); 2. = remained unchanged; 3. - deteriorated (decreased). (seasonally adjusted)



- How do you expect your orders placed with suppliers to change over the next 3 months? They will... 1. + increase; 2. = remain unchanged; 3. - decrease. (seasonally adjusted)
- Your business activity is currently...: 1. + more than sufficient; 2. = sufficient; 3. - not sufficient.
- How do you expect your business activity (sales) to change over the next 3 months? It (They) will... 1. + improve (increase); 2. = remain unchanged 3. - deteriorate (decrease). (seasonally adjusted)

Qualitative Construction and Public Works survey

- How has your building activity developed over the past 3 months? It has...; 1. + increased; 2. = remained unchanged; 3. - decreased.
- Do you consider your current overall order books to be...?: 1. + more than sufficient (above normal); 2. = sufficient (normal for the season); 3. - not sufficient (below normal).
- How do you expect your firm's total employment to change over the next 3 months? It will...; 1. + increase; 2. = remain unchanged; 3. - decrease.

Qualitative Services survey

- How has your business situation developed over the past 3 months? It has... 1. + improved; 2. = remained unchanged; 3. - deteriorated. (seasonally adjusted)
- How has demand (turnover) for your company's services changed over the past 3 months? It has... 1. + increased; 2. = remained unchanged; 3. - decreased. (seasonally adjusted)
- How do you expect the demand (turnover) for your company's services to change over the next 3 months? It will...1. + increase; 2. = remain unchanged; 3. - decrease. (seasonally adjusted)

SECTORIAL CONFIDENCE INDICATORS

The confidence indicators (CI) are the result of the arithmetic average of balance of the following questions:

Manufacturing Industry confidence indicator

- Do you consider your current overall order books to be...? 1. + more than sufficient (above normal); 2. = sufficient (normal for the season); 3. - not sufficient (below normal).
- How do you expect your production to develop over the next 3 months? It will... 1. + increase; 2. = remain unchanged; 3. - decrease.
- [Inverted Sign] Do you consider your current stock of finished products to be...? 1. + too large (above normal); 2. = adequate (normal for the season); 3. - too small (below normal).

Trade confidence indicator

- How has (have) your business activity (sales) developed over the past 3 months? It has... (They have...) 1. + improved (increased); 2. = remained unchanged; 3. - deteriorated (decreased).
- How do you expect your business activity (sales) to change over the next 3 months? It (They) will... 1. + improve (increase); 2. = remain unchanged 3. - deteriorate (decrease).
- [Inverted Sign] Do you consider the volume of stock you currently hold to be...? 1. + too large (above normal); 2. = adequate (normal for the season); 3. - too small (below normal).

Construction and Public Works confidence indicator

- Do you consider your current overall order books to be...?: 1. + more than sufficient (above normal); 2. = sufficient (normal for the season); 3. - not sufficient (below normal).
- How do you expect your firm's total employment to change over the next 3 months? It will...; 1. + increase; 2. = remain unchanged; 3. - decrease.

Services confidence indicator

- How has your business situation developed over the past 3 months? It has... 1. + improved; 2. = remained unchanged; 3. - deteriorated.



- How has demand (turnover) for your company's services changed over the past 3 months? It has... 1. + increased; 2. = remained unchanged; 3. - decreased.
- How do you expect the demand (turnover) for your company's services to change over the next 3 months? It will... 1. + increase; 2. = remain unchanged; 3. - decrease.

CONSUMER CONFIDENCE INDICATOR

The consumer confidence indicator results of the arithmetic average of the balances of the following questions:

- How has the financial situation of your household changed over the last 12 months? It has... 1. ++ got a lot better; 2. + got a little better; 3. = stayed the same; 4. - got a little worse; 5. -- got a lot worse; 6. N don't know.
- How do you expect the financial position of your household to change over the next 12 months? It will... 1. ++ get a lot better; 2. + get a little better; 3. = stay the same; 4. - get a little worse; 5. -- get a lot worse; 6. N don't know.
- How do you expect the general economic situation in this country to develop over the next 12 months? It will... 1. ++ get a lot better; 2. + get a little better; 3. = stay the same; 4. - get a little worse; 5. -- get a lot worse; 6. N don't know.
- Compared to the past 12 months, do you expect to spend more or less money on major purchases (furniture, electrical/electronic devices, etc.) over the next 12 months? I will spend... 1. ++ much more; 2. + a little more; 3. - a little less; 4. -- much less; 5. N don't know.

ABBREVIATIONS

Bal: Balances correspond to weighted difference between the percentages of positive and negative responses.

EV: Effective Values.

SA: Seasonally Adjusted values.

3MMA: Three-Months Moving Average.

2QMA: Two-Quarters Moving Average

Next monthly press release – January 30th, 2023
