



International
Labour
Organization



ADWA'
Advancing the Decent Work
Agenda in North Africa

ECONOMIC
RESEARCH
FORUM



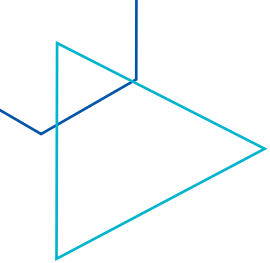
منتدى
البحوث
الاقتصادية



HIGHLIGHTS REPORT: SECOND WAVE JUNE 2021

Rapid Labour Force Survey of COVID-19 Impact in Tunisia

Published in February 2022



Contents

Key findings	03
Introduction	05
Firm characteristics, survival, and coping strategies	08
Sales and revenue	23
Employment	25
Appendix	28

List of figures

Figure 3-1: Share of firms by economic activity	8
Figure 3-2: Median number of workers by economic activity	9
Figure 3-3: Firms' coping strategies	15
Figure 3-4: Current business status	18
Figure 5-1: Employment expectations	25
Figure 5-2: Remote employment	26
Figure 5-3: Difficulties with working from home	27

List of tables

Table 2-1: Sample distribution by firm size and economic activity	5
Table 2-2: Firm response rates by response (%)	7
Table 3-1: Workers by employment type and activity	10
Table 3-2: Foreign ownership and inventory status	12
Table 3-3: Distribution of firms by foreign ownership and inventory status	14
Table 3-4: Coping strategies by economic activity	16
Table 3-5: Business status by economic activity	19
Table 3-6: Business challenges by economic activity	20
Table 4-1: Sales and revenue change	23

Key findings

Key Findings

- This report complements the household survey analysis by looking at the key findings from the data collected on small and medium enterprises in Tunisia. The survey is conducted by phone and targets firms with 6 to 199 workers before the pandemic (February 2020). A sample of 500 firms was randomly drawn and stratified using the Yellow Pages. Firms were stratified into economic activities, namely: agriculture, industry, construction, trade, accommodation, and services. Firms were also stratified by size in terms of 6-49 versus 50-200 employees, and a random stratified sample (order) was selected. Wave 2 was conducted between May and July 2021.
- As of May 2021, more than half of the firms surveyed in Tunisia operated in manufacturing and agriculture and services (44 and 21 percent, respectively), while 17 percent were in trade and retail, 10 percent were in construction, and eight percent in food and accommodation. Figure 3.1 shows the distribution of the 500 firms based on aggregated economic activities, due to the low variation at a disaggregated level (given the sample size).
- The median number of workers in the full sample increased from 12 workers in February 2020 to 14 workers in wave 1 and 22 workers in wave 2. With the exception of firms in food and accommodation, where the median number of workers declined from 18 workers in the first wave to 15 workers in the second wave, the median firm of all other economic activities witnessed an increase in the number of workers between both waves.
- The mean number of all workers increased considerably between February 2020 and the time of the interview for the first and second waves (from 24.9 in February 2020 to 30.1 in the first wave to 43.6 in the second wave). With the largest increase in the mean number of workers in the indefinite duration contract workers (from 14.8 workers in the first wave to 23.8 in the second wave). Within economic activities, firms in manufacturing and agriculture witnessed the highest increase in the mean total number of workers, from 44.5 workers in wave 1 to 54.5 in wave 2.
- Nearly one third of the firms surveyed in Tunisia either imported or exported in 2019 (28.6 percent in the first wave), compared to 53.7 percent in the second wave. The economic sector with the highest mean share of importing and/or exporting firms (traders) in the second wave is manufacturing and agriculture, where nearly 76.1 percent of the firms were traders. This is followed by trade and retail, where 29.1 percent of firms were traders.
- The majority of firms surveyed in Tunisia reported adopting no coping strategies (69 percent, 329 firms out of a total of 477 surveyed in wave 1) compared to 57 percent in the second wave. Overall, only few firms in Tunisia reported adopting any coping strategy. Most of the firms surveyed in the second wave restored to bank credit (20 percent compared to only 11 percent in the first wave) and credit purchasing (18 percent compared to only 7 percent in the first wave). The least adopted coping strategy in the second wave was receiving aid from family and friends from abroad (six percent in wave 1 and two percent in wave 2).

Key Findings

- ▶ The majority of firms surveyed in Tunisia reported business as usual (nearly 73 percent). Out of the firms that experienced disruptions due to the pandemic, many reported reducing working hours as a change to their current business status (24 percent) and only 3 percent reported temporarily or permanently closing.
- ▶ Overall, the second wave surveyed firms reported an average decline in their percentage revenue change over the last 60 days from the time of the interview, with the largest decline reported by the food and accommodation firms (71 average revenue decline). Firms in manufacturing and agriculture did not seem to do much better, reporting a decline in revenue over the past two months of 39.7 percent.
- ▶ In comparison to expecting to hire 0.2 additional workers on average in wave 1, firms reported expecting to hire 41.2 workers on average in wave 2. Although, the revenue figures do not reflect such optimism (which could be for technical reasons, see footnote 4), the hiring expectations suggest that firms expect to have increasing business activities for the coming six months. However, firms in the second wave also reported expecting to reduce and/or delay the earnings of 30.9 workers on average. More alarmingly, firms reported expecting to permanently lay-off 18.3 workers and temporarily lay-off 43.7 workers on average.



Introduction

This report complements the household survey analysis by looking at the key findings from the data collected on small and medium enterprises in Tunisia. The survey is conducted by phone and targets firms with 6 to 199 workers before the pandemic (February 2020). A sample of 500 firms was randomly drawn and stratified using the Yellow Pages. Wave 2 was conducted between May and July 2021¹.

Table 2.1 shows the distribution of the firms (number of firms) surveyed by size and economic activity with row percentages in parenthesis.²

► **Table 2-1:** Sample distribution by firm size and economic activity

Firm size			Manu. & Agri.	Const.	Trade & retail	Accom. & food	Services	All activities
Wave 1	6-9 workers	Feb-20	38 (20.6)	18 (9.8)	55 (30)	17 (9.3)	56 (30.3)	184 (100)
		Current	36 (22.3)	16 (10.1)	44 (27.3)	16 (9.9)	49 (30.4)	163 (100)
	10-24 workers	Feb-20	42 (29.3)	20 (13.9)	30 (20.6)	19 (13.2)	33 (23.1)	144 (100)
		Current	42 (27.6)	18 (11.5)	39 (25.4)	19 (12.1)	36 (23.5)	154 (100)
	25-49 workers	Feb-20	26 (44.3)	9 (15.1)	7 (12.3)	8 (14.4)	8 (13.9)	58 (100)
		Current	25 (40.6)	10 (15.5)	9 (14.2)	9 (14.6)	9 (15.1)	61 (100)
	50+ workers	Feb-20	35 (46.3)	7 (9.7)	11 (15)	7 (9.3)	15 (19.7)	75 (100)
		Current	37 (44.3)	10 (12.5)	11 (13.5)	8 (9.4)	17 (20.3)	83 (100)
	Total	Feb-20	141 (30.5)	54 (11.7)	103 (22.4)	51 (11.2)	112 (24.3)	461 (100)
		Current	141 (30.5)	54 (11.7)	103 (22.4)	51 (11.2)	112 (24.3)	461 (100)

¹ Can be accessed at <https://www.yellowpages.com.eg/en>.

² Figures in table 2.1 are weighted using firm weights.

Wave 2	6-9 workers	Feb-20	6 (3.4)	13 (7.2)	34 (19)	61 (34.5)	64 (36)	177 (100)
		Current	4 (3.3)	11 (8.2)	26 (20.2)	46 (35)	43 (33.2)	130 (100)
	10-24 workers	Feb-20	9 (4.8)	23 (12.5)	42 (22.6)	60 (32.6)	51 (27.5)	185 (100)
		Current	9 (4.2)	22 (10.4)	46 (22.1)	67 (31.8)	66 (31.6)	210 (100)
	25-49 workers	Feb-20	3 (3.1)	9 (11.5)	23 (27.4)	15 (17.8)	33 (40.2)	83 (100)
		Current	4 (4.6)	10 (10.9)	23 (25.4)	20 (22)	34 (37)	92 (100)
	50+ workers	Feb-20	7 (16.5)	9 (20.5)	6 (15.4)	12 (27.8)	8 (19.8)	42 (100)
		Current	7 (14.2)	11 (22.1)	8 (16.1)	13 (26.9)	10 (20.7)	48 (100)
	Total	Feb-20	24 (5)	54 (11.1)	105 (21.5)	148 (30.4)	156 (32.1)	487 (100)
		Current	24 (5.1)	53 (11.1)	104 (21.6)	145 (30.3)	153 (32)	480 (100)

Source: Constructed by authors using the ILO/ ERF COVID-19 Monitor

The second wave of the survey was conducted by phone on firms with 6 to 199 workers before the pandemic (i.e. before February 2020). Yellow Pages or similar databases were not available to roster firms, hence administrative data sources are used from the National Institute of Statistics (INS) and the Agency for the Promotion of Industry and Innovation (APII) databases. The sample started with the INS frame with 1,238 firms with 6-200 wage employees. Firms were stratified into size economic activities, namely: agriculture, industry, construction, trade, accommodation, and services. Firms were also stratified by size in terms of 6-49 versus 50-200 employees, and a random stratified sample (order) was selected. The sample was further restricted to firms with 6 to 199 workers in February 2020 based on an eligibility question during the phone interview. After the INS sample was exhausted, the APII sample was used. APII only covered firms with 10+ workers and only covered firms in services and transport and in industry. Weights are based on the underlying data on all firms from INS, specifically: Entreprises privées selon l'activité principale et la tranche de salariés. The firm weights were ultimately stratified by industry and firms sized: 6-9 employees (since APII only covered 10+), 10-49, and 50-199 employees.³ Up to five attempts were made to ensure response if a phone number was not picked up/answered, disconnected or busy, or picked up but could not complete the interview at that time. After the fifth failed attempt, the firm is treated as a non-response and a random firm from the same stratum is used as an alternate.

Table 2.2 shows the response rates by response for Tunisia. The panel column shows the response rates among firms who consented to a follow-up. Phones that were not in service, disconnected/busy (after multiple calls) and firms who were not eligible are excluded from the response rate calculations. The refresher column shows response rates among the newly added firms to the sample. The responses are based on the final result, which may have been based on five attempts.

³ See ERF sample and weighting technical documentation for more details.

► **Table 2-2:** Firm response rates by response (%)

	Wave 1	Wave 2 - Refresher	Wave 2 - Panel
Phone disconnected/busy	3	11	2
Not in service	7	46	22
Did not answer	22	8	20
Picked up and refused	9	19	19
Incomplete, and refused	7	4	6
Incomplete, return call	7	1	1
Complete	44	8	31
Not Eligible	1	4	0
Total	100	100	100
Response rate	50	19	40

Source: Constructed by authors using the ILO/ ERF COVID-19 Monitor

The presented data in this report has been weighted to ensure the basic characteristics of the sample reflect the underlying universe of firms. An inverse probability weighting was used to weigh the firms' sample to account for non-response rates and the sampling strategy. The weights are then normalized to have a mean of one.

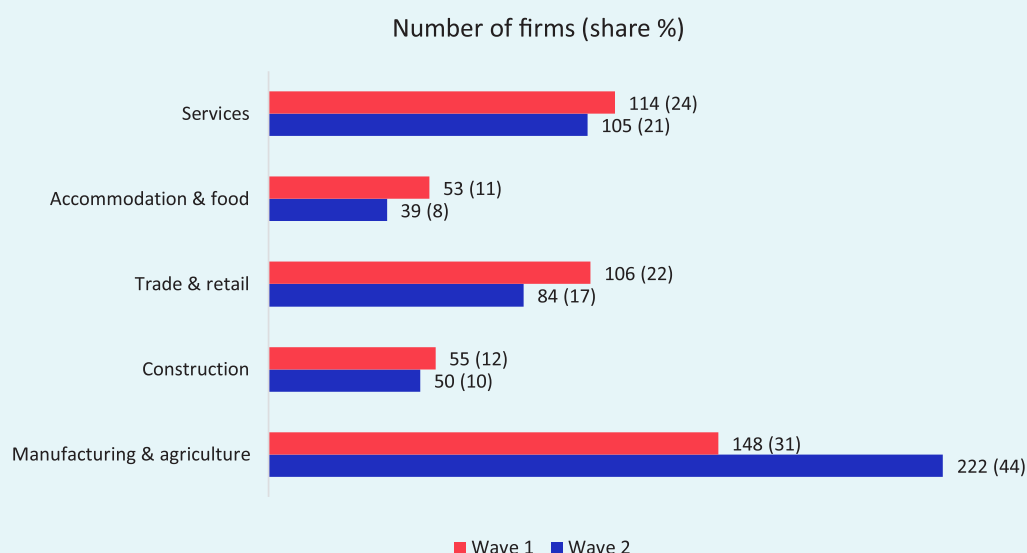
The following section summarizes the main findings from the firms' data, section 3 presents the analysis for firm characteristics, firm survival, and coping strategies. Sections 4 and 5 presents stylized facts on sales and revenues and employment for firms in Tunisia, respectively.



Firm characteristics, survival, and coping strategies

As shown in figure 3.1, the distribution of the 500 surveyed firms is based on aggregated economic activities, due to the low variation at a disaggregated level (given the sample size). The distribution of firms by economic activity and size did not vary much between waves 1 and 2. The majority of SMEs in Tunisia still operates in manufacturing and agriculture (44 per cent), followed by services and trade and retail (21 and 17 percent, respectively).

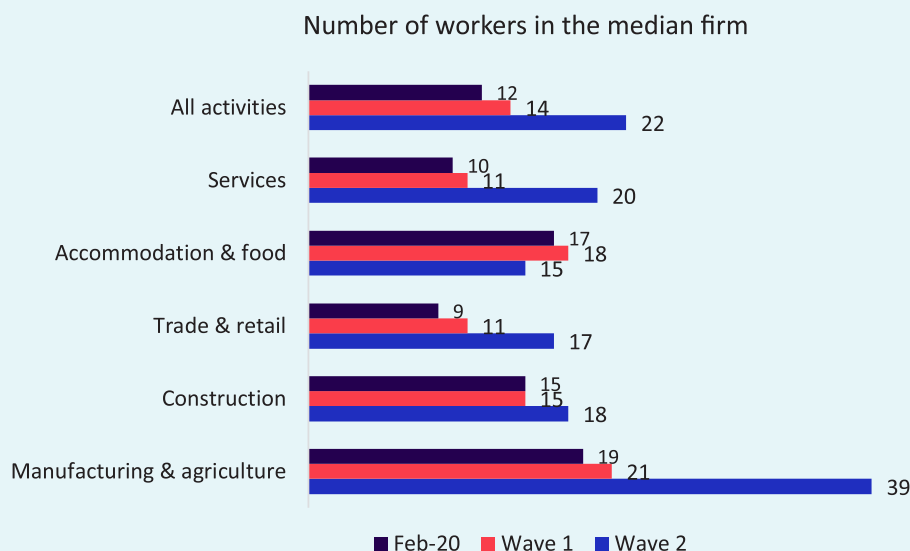
► **Figure 3-1:** Share of firms by economic activity



Source: Constructed by authors using the ILO/ ERF COVID-19 Monitor

Figure 3.2 compares the median number of workers between February 2020 and at the time of interview of wave 1 and wave 2 by economic activity. The median number of workers in the full sample increased from 12 workers in February 2020 to 14 workers in wave 1 and 22 workers in wave 2. In fact, the median firm witnessed an increase in the number of workers between both waves, across all economic activities in Tunisia, except for firms in food and accommodation, where the median number of workers declined from 18 workers in the first wave to 15 workers in the second wave. Firms operating in manufacturing and agriculture witnessed the biggest increase in the median number of workers (an increase of 18 workers) from 21 workers in wave 1 to 39 workers in wave 2.

► **Figure 3-2:** Median number of workers by economic activity



Source: Constructed by authors using the ILO/ ERF COVID-19 Monitor

Looking at the total number of workers by economic activity before and after the pandemic, shows a holistic view of how firms and workers were impacted. In the following table (3.1), we demonstrate the impact of the pandemic on firms across different types of workers, from the most stable type of employment (indefinite duration contract workers) to the least (unpaid workers). In addition to other types of employment such as definite duration contract workers and workers without contracts. Table 3.1 provides more detailed summary statistics on the impact of COVID-19 on firms and workers. More detailed analysis on employment will be presented in section 5.

The summary statistics of the number of workers by type of employment and economic activity for firms in Tunisia is shown in table 3.1. In the survey, firms were only asked to report on the number of unpaid workers as of February 2020. In the full sample, the mean number of all workers increased considerably between February 2020 and the time of the interview for the first and second waves (from 24.9 in February 2020 to 30.1 in the first wave to 43.6 in the second wave), with the largest increase in the mean number of workers with indefinite duration contract (from 14.8 workers in the first wave to 23.8 in the second wave). Within economic activities, firms in manufacturing and agriculture witnessed the largest increase of mean in total number of workers, from 44.5 workers in wave 1 to 54.5 in wave 2.

The largest increase in the mean number of indefinite duration contract workers between both waves took place among firms in the manufacturing and agriculture sector (from 18.5 to 27.9 workers), followed by firms in services (from 14.6 to 25.1 indefinite duration contract workers). The manufacturing and agriculture sector witnessed a considerable increase in the mean number of all types of workers, except for definite duration contract workers where a decline from 24.9 in wave 1 to 22.9 is observed in wave 2. Notably, the median firm in all sectors had zero workers without contracts in both waves, including firms in manufacturing and agriculture.

► **Table 3-1:** Workers by employment type and activity

			Manu. & Agri.	Const.	Trade & retail	Accom. & food	Services	All activities
Total workers	Mean	Feb-20	36	22	18.6	22.8	19.1	24.9
		Wave 1	44.5	28.1	21.8	25.4	22.9	30.1
		Wave 2	54.5	29.1	34.7	33.3	40.7	43.6
	Median	Feb-20	19	15	9	17	10	12
		Wave 1	21	15	11	18	11	14
		Wave 2	39	18	17	15	20	22
	Sd	Feb-20	40.3	18.9	23	19.3	23.1	29.6
		Wave 1	68.1	29.8	31.6	24.1	31.8	46.2
		Wave 2	51.8	45.7	41.6	47.7	51.6	50
Indefinite duration contract workers	Mean	Feb-20	14.8	10.6	9.6	14.4	12.9	12.6
		Wave 1	18.5	13.4	10.1	15.9	14.6	14.8
		Wave 2	27.9	13.8	17.2	25.1	25.1	23.8
	Median	Feb-20	7	6	6	10	7	7
		Wave 1	7	6	6	10	7	7
		Wave 2	16	7	9	8	10	12
	Sd	Feb-20	22.9	13.8	13.1	14.9	19.6	18.5
		Wave 1	32.7	21.1	14.1	19.9	22.1	24.3
		Wave 2	32.3	21.2	26.5	41.8	44.6	34.6
Definite duration contract workers	Mean	Feb-20	20.4	7.4	8.2	7.9	5.8	11.2
		Wave 1	24.9	8.6	10.7	8.7	7.6	13.8
		Wave 2	22.9	12.1	14.1	6.6	9.8	15.9
	Median	Feb-20	9	4	2	4	2	4
		Wave 1	9	3	3	4	3	4
		Wave 2	12	3	5	2	2	5

	Sd	Feb-20	30.7	10.5	15.9	12.2	11.3	21
		Wave 1	45.8	14	22.9	13.1	16.8	30.3
		Wave 2	30.5	27.4	27.2	13.9	18.2	26.7
No contract workers	Mean	Feb-20	1.4	3.7	0.5	0.9	0.5	1.2
		Wave 1	0.6	5.7	0.6	1.1	0.8	1.3
		Wave 2	3.2	2.6	1.6	0.8	4.3	2.9
	Median	Feb-20	0	0	0	0	0	0
		Wave 1	0	0	0	0	0	0
		Wave 2	0	0	0	0	0	0
	Sd	Feb-20	11.3	8.9	2.1	3.5	2.6	7.3
		Wave 1	2.7	14.8	2.1	5.1	4.9	6.3
		Wave 2	22.4	12.9	5.2	4	14.3	17
Unpaid workers	Mean	Feb-20	0	0.3	0.2	0.1	0	0.1
	Median	Feb-20	0	0	0	0	0	0
	Sd	Feb-20	0.3	0.7	0.5	1.1	0.2	0.5

Source: Constructed by authors using the ILO/ ERF COVID-19 Monitor

Table 3.2 shows other firms' characteristics, including the percentage of firms who import and/or export (traders), the share of foreign owned firms (partially or fully), the size of foreign ownership, whether the firm keeps inventory or not and the number of inventory days kept by economic activity. Nearly one third of the firms surveyed in Tunisia either imported or exported in the year 2019 (28.6 percent in the first wave), compared to 53.7 percent in the second wave. The economic sector with the highest mean share of importing and/or exporting firms (traders) in the second wave is manufacturing and agriculture, where nearly 76.1 percent of the firms were traders, followed by trade and retail, where 56.2 percent of firms were traders.



► **Table 3-2:** Foreign ownership and inventory status

			Manu. & Agri.	Const.	Trade & retail	Accom. & food	Services	All activities
Traders (%)	Wave 1	Mean	49.2	7.7	22.6	3.6	29.1	28.6
		Sd	50.2	26.9	42	18.8	45.6	45.2
	Wave 2	Mean	76.1	17	56.2	16.2	36	53.7
		Sd	42.8	37.9	49.9	37.2	48.3	49.9
Foreign owned (%)	Wave 1	Mean	18.7	2	2.6	3.3	15.6	10.7
		Sd	39.1	14.2	16	17.9	36.5	31
	Wave 2	Mean	21.3	5.5	5.5	7.1	18.6	15.4
		Sd	41	23	22.9	25.9	39.1	36.1
Size of foreign ownership (%)	Wave 1	Mean	68.7	-	79.6	72	72.1	70.8
		Median	63	-	100	49	80	80
		Sd	31.2	-	30.6	35.9	25.6	28.5
	Wave 2	Mean	82.4	43.3	90	65	73.9	78.7
		Median	100	20	100	65	60	100
		Sd	28.4	49.3	22.4	49.5	24.8	29
Keeps inventory (%)	Wave 1	Mean	26.7	8.9	44.2	7.8	8.9	22.1
		Sd	44.4	28.8	50	26.9	28.5	41.6
	Wave 2	Mean	26.5	7.6	34.9	8.4	14.9	22.2
		Sd	44.3	26.7	47.9	28	35.8	41.6
Number of inventory days	Wave 1	Mean	417.1	653.3	227.5	18.2	143.5	302.1
		Median	60	998	30	20	45	45
		Sd	478.5	475.3	376.9	10.8	331.1	427.3
	Wave 2	Mean	128.9	392.5	160.2	56.8	213.9	150.1
		Median	30	60	60	15	60	37
		Sd	248.6	570.4	281.8	90.6	362.3	275.4

Source: Constructed by authors using the ILO/ ERF COVID-19 Monitor

Across all economic activities, 10.7 percent of firms (on average) were either partially or fully foreign owned in Tunisia (51 firms, see table 3.3) in the first wave compared to 15.4 percent (77 firms) in the second wave. Out of the 77 firms partially or fully foreign owned in wave 2, 47 were in manufacturing and agriculture and 20 were in services. With the highest average size of foreign ownership being in trade and retail (90 percent foreign ownership) compared to 100 percent foreign ownership for the median firm in the same sector (out of only five firms with foreign ownership operating in trade and retail). It is difficult to draw any interpretations from the size of foreign ownership variable in the data, as only quite a small number of firms in Tunisia reported having partial or full foreign ownership (see table 3.3). This is particularly the case for firms in trade and retail, construction and food and accommodation.

Table 3.3 shows the distribution of firms by foreign ownership and inventory status. Looking at the two economic activities with the highest number of firms reporting foreign ownership in the second wave (47 firms in manufacturing and agriculture and 20 firms in services), on average, the size of foreign ownership in both sectors was 82.4 and 73.9 percent, respectively.

In terms of inventory status, the issue of low variation due to sample size is less applicable compared to the size of foreign ownership variable. Out of the 500 firms surveyed in Tunisia, 111 firms reported keeping inventory, the majority of which are in manufacturing and agriculture (59 firms) and trade and retail (29 firms). The average number of inventory days is 128.9 days for firms in manufacturing and agriculture and 160.2 days in trade and retail. Meanwhile, firms in construction kept 392.5 days of inventory on average⁴.



⁴ Numbers from table 3.2 shall not be compared to table 3.3, as the summary statistics presented in table 3.2 are weighted (see the appendix).

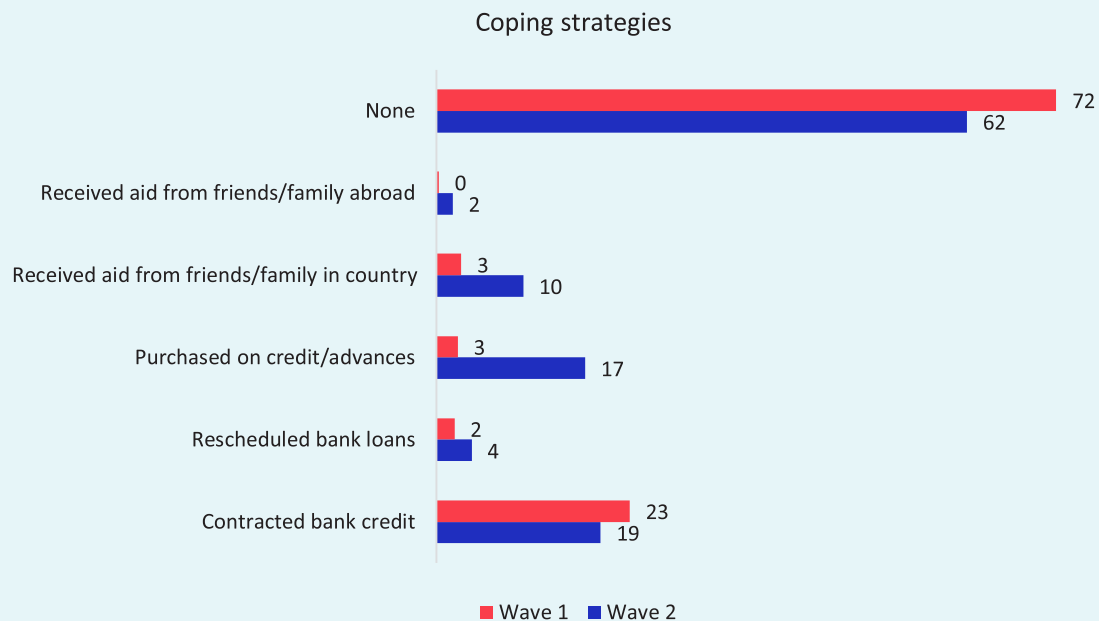
► **Table 3-3:** Distribution of firms by foreign ownership and inventory status

		Manufacturing & agriculture	Construction	Trade & retail	Accommodation & food	Services	All activities
Wave 1	Fully local	120	54	103	52	96	426
	Partly or fully foreign	28	1	3	2	18	51
	Total	148	55	106	53	114	477
Wave 2	Fully local	175	48	79	36	85	423
	Partly or fully foreign	47	3	5	3	20	77
	Total	222	50	84	39	105	500
Wave 1	Does not keep inventory	109	50	59	49	104	371
	Keeps inventory	39	5	47	4	10	106
	Total	148	55	106	53	114	477
Wave 2	Does not keep inventory	163	46	55	36	89	389
	Keeps inventory	59	4	29	3	16	111
	Total	222	50	84	39	105	500

Source: Constructed by authors using the ILO/ ERF COVID-19 Monitor

In addition to business models, economic activities and types and size of employment offered, firms also differed by their response to the pandemic and adopted different coping strategies. Figure 3.3 below shows the share of firms adopting different coping strategies. Also, table 3.4 presents the detailed breakdown by economic activity. The majority of firms surveyed in Tunisia reported adopting no coping strategies (69 percent, 329 firms out of a total of 477 surveyed in wave 1) compared to 57 percent in the second wave. Overall, only a few firms in Tunisia reported adopting any coping strategy.

► **Figure 3-3: Firms' coping strategies**



Source: Constructed by authors using the ILO/ ERF COVID-19 Monitor

Most of the firms surveyed in the second wave contracted bank credit (20 percent compared to only 11 percent in the first wave) and purchased on credit (18 percent compared to only 7 percent in the first wave). The least adopted coping strategy in the second wave was receiving aid from family and friends from abroad (six percent in wave 1 and two percent in wave 2).

Table 3.4 presents the summary of all firm responses in terms of coping strategies by economic activity. The number of firms is shown in the table along with the row percentage shares in parenthesis. Firms without any coping strategies were mostly found in manufacturing and agriculture (115 firms) and services (76 firms). As for firms that purchased on credit (89 firms), 45 were in manufacturing and agriculture and 16 were in trade and retail.



► **Table 3-4:** Coping strategies by economic activity

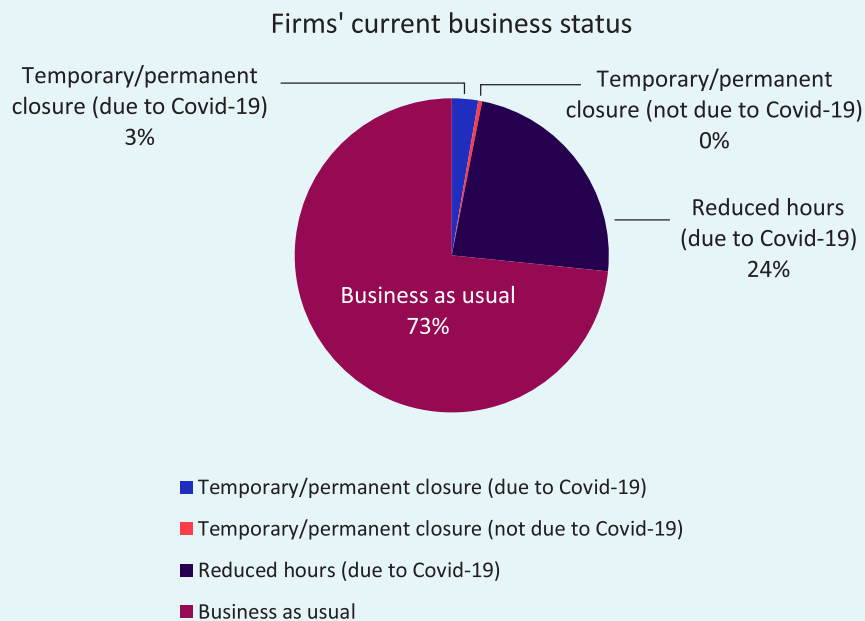
Coping strategy		Number of firms (row share, %)	Manu. & Agri.	Const.	Trade & retail	Accom. & food	Services	All activities
Contracted bank credit	Wave 1	Did not adopt	127 (29.9)	48 (11.2)	93 (21.8)	49 (11.4)	110 (25.8)	426 (100)
		Adopted	21 (40.8)	8 (15.2)	13 (26.2)	5 (9.2)	4 (8.6)	51 (100)
		Total	148 (31)	55 (11.6)	106 (22.2)	53 (11.2)	114 (24)	477 (100)
	Wave 2	Did not adopt	172 (42.7)	37 (9.2)	68 (16.9)	32 (7.9)	93 (23.2)	402 (100)
		Adopted	50 (51.3)	13 (13.5)	16 (16.3)	7 (7.1)	12 (11.8)	98 (100)
		Total	222 (44.4)	50 (10.1)	84 (16.8)	39 (7.8)	105 (21)	500 (100)
Rescheduled bank loans	Wave 1	Did not adopt	141 (31.8)	49 (11)	93 (21)	50 (11.3)	110 (24.9)	444 (100)
		Adopted	7 (20.6)	6 (19.4)	13 (39.2)	3 (8.9)	4 (11.9)	33 (100)
		Total	148 (31)	55 (11.6)	106 (22.2)	53 (11.2)	114 (24)	477 (100)
	Wave 2	Did not adopt	184 (43.2)	44 (10.3)	72 (17)	32 (7.6)	93 (21.8)	425 (100)
		Adopted	38 (51.2)	6 (8.6)	11 (15.2)	6 (8.7)	12 (16.3)	75 (100)
		Total	222 (44.4)	50 (10.1)	84 (16.8)	39 (7.8)	105 (21)	500 (100)
Purchased on credit/ advances	Wave 1	Did not adopt	135 (30.5)	50 (11.4)	93 (21.1)	50 (11.3)	113 (25.7)	442 (100)
		Adopted	13 (37.6)	5 (14.1)	13 (36.2)	3 (9.8)	1 (2.3)	35 (100)
		Total	148 (31)	55 (11.6)	106 (22.2)	53 (11.2)	114 (24)	477 (100)
	Wave 2	Did not adopt	178 (43.2)	39 (9.6)	68 (16.4)	33 (8)	94 (22.8)	411 (100)
		Adopted	45 (49.8)	11 (12.4)	16 (18.3)	6 (6.9)	11 (12.6)	89 (100)
		Total	222 (44.4)	50 (10.1)	84 (16.8)	39 (7.8)	105 (21)	500 (100)

Received aid from friends/ family in country	Wave 1	Did not adopt	130 (30.5)	51 (11.9)	95 (22.1)	50 (11.8)	101 (23.7)	427 (100)
		Adopted	18 (35.9)	4 (8.9)	12 (23.3)	3 (6)	13 (25.9)	50 (100)
		Total	148 (31)	55 (11.6)	106 (22.2)	53 (11.2)	114 (24)	477 (100)
	Wave 2	Did not adopt	198 (44.3)	40 (9.1)	76 (17.1)	34 (7.6)	97 (21.8)	446 (100)
		Adopted	24 (45)	10 (18.1)	7 (13.8)	5 (9)	8 (14.1)	54 (100)
		Total	222 (44.4)	50 (10.1)	84 (16.8)	39 (7.8)	105 (21)	500 (100)
Received aid from friends/ family abroad	Wave 1	Did not adopt	144 (30.8)	55 (11.8)	104 (22.2)	53 (11.3)	111 (23.8)	468 (100)
		Adopted	4 (41.9)	0 (0)	2 (25.8)	0 (2.6)	3 (29.7)	9 (100)
		Total	148 (31)	55 (11.6)	106 (22.2)	53 (11.2)	114 (24)	477 (100)
	Wave 2	Did not adopt	206 (43.8)	47 (9.9)	79 (16.8)	39 (8.2)	100 (21.3)	471 (100)
		Adopted	16 (54.3)	4 (12.7)	5 (16.7)	0 (0.5)	5 (15.8)	29 (100)
		Total	222 (44.4)	50 (10.1)	84 (16.8)	39 (7.8)	105 (21)	500 (100)
None	Wave 1	Did not adopt	53 (35.7)	20 (13.6)	42 (28.3)	11 (7.3)	22 (15.1)	148 (100)
		Adopted	95 (28.9)	35 (10.7)	64 (19.5)	42 (12.9)	92 (27.9)	329 (100)
		Total	148 (31)	55 (11.6)	106 (22.2)	53 (11.2)	114 (24)	477 (100)
	Wave 2	Did not adopt	107 (49.9)	28 (13.3)	35 (16.5)	14 (6.7)	29 (13.7)	214 (100)
		Adopted	115 (40.3)	22 (7.6)	48 (17)	24 (8.6)	76 (26.5)	286 (100)
		Total	222 (44.4)	50 (10.1)	84 (16.8)	39 (7.8)	105 (21)	500 (100)

Source: Constructed by authors using the ILO/ ERF COVID-19 Monitor

Looking at the status of businesses at the time of interview also reflects a similar trend found in table 3.4. Figure 3.4 presents the shares of firms reporting different business statuses at the time of the interview in the second wave. The majority of firms surveyed in Tunisia reported business as usual (nearly 73 percent). Out of the firms that experienced disruptions due to the pandemic, many reported reducing working hours as a change to their current business status (24 percent) and only 3 percent reported temporarily or permanently closing.

► **Figure 3-4:** Current business status



Source: Constructed by authors using the ILO/ ERF COVID-19 Monitor

The following table (3.5) shows the breakdown of the business status responses by economic activity. That is later followed by the main challenges faced by businesses that led to their current status and can also be linked to the firms' respective coping strategies. Table 3.5 presents a more detailed summary of current business status for firms by different economic activities.



► **Table 3-5:** Business status by economic activity

Number of firms (share, %)	Manu. & Agri.	Const.	Trade & retail	Accom. & food	Services	All activities
Temporary/ permanent closure (due to COVID-19)	6 (45.5)	2 (15.9)	2 (15.2)	2 (16.7)	1 (6.7)	14 (100)
Temporary/ tpermanent closure (not due to COVID-19)	2 (100)	0 (0)	0 (0)	0 (0)	0 (0)	2 (100)
Reduced hours (due to COVID-19)	42 (36)	12 (9.8)	20 (16.7)	21 (17.9)	23 (19.6)	118 (100)
Business as usual	171 (46.7)	37 (10)	62 (16.9)	15 (4.2)	81 (22.1)	367 (100)
Do not know	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Total	222 (44.4)	50 (10.1)	84 (16.8)	39 (7.8)	105 (21)	500 (100)

Source: Constructed by authors using the ILO/ ERF COVID-19 Monitor

Out of the 118 firms reporting reduced number of working hours, 36 percent were in manufacturing and agriculture, 19.6 percent were in services, and 17.9 were in food and accommodation. Quite a few firms (14) reported temporary or permanent closure due to the pandemic (as seen in figure 3.4), nearly half of which operated in manufacturing and agriculture (six firms).

Table 3.6 shows the detailed breakdown for the distribution of firms by business challenges and economic activity. In the first wave, the most reported challenge faced by businesses in Tunisia was difficulties in accessing customers due to mobility restrictions (311 firms out of 477, 65 percent of firms). This changed in the second wave where the most reported business challenge was the reduction in the availability or price increases of the main inputs (414 firms, 83 percent).

Similarly, most of the firms reporting challenges with accessing inputs operate in manufacturing and agriculture (47.1 percent, 195 firms), followed by firms operating in trade and retail (17.1 percent, 71 firms). The next most reported business challenge in wave 2 was loss in demand (329 firms). Most of the firms reporting loss in demand, also operate in manufacturing and agriculture (112 firms, 47.5 percent out of 329 firms), followed by firms in trade and retail (43 firms, 18 percent). Moreover, firms in manufacturing and agriculture and trade and retail were the most reporting facing overall business challenges.

► **Table 3-6:** Business challenges by economic activity

Business challenge		Number of firms (share, %)	Manu. & Agri.	Const.	Trade & retail	Accom. & food	Services	All activities
Difficulties in accessing customers mobility restrictions	Wave 1	Not Mentioned	10 (4.8)	40 (18.4)	19 (8.7)	37 (17.3)	109 (50.8)	214 (100)
		Mentioned	16 (5.7)	62 (21.7)	47 (16.3)	82 (28.8)	78 (27.4)	285 (100)
		Total	27 (5.3)	101 (20.3)	65 (13.1)	119 (23.9)	187 (37.5)	499 (100)
	Wave 2	Not Mentioned	11 (4.6)	32 (12.9)	54 (21.7)	58 (23.5)	92 (37.3)	247 (100)
		Mentioned	13 (5.3)	22 (8.8)	52 (20.6)	94 (36.8)	73 (28.5)	254 (100)
		Total	25 (4.9)	54 (10.8)	106 (21.1)	152 (30.2)	165 (32.8)	501 (100)
Loss in demand due to other customer reasons	Wave 1	Not Mentioned	50 (30)	13 (7.7)	39 (23.2)	10 (6)	56 (33.1)	167 (100)
		Mentioned	98 (31.6)	43 (13.7)	67 (21.7)	43 (14)	59 (19)	310 (100)
		Total	148 (31)	55 (11.6)	106 (22.2)	53 (11.2)	114 (24)	477 (100)
	Wave 2	Not Mentioned	80 (46.6)	16 (9.4)	25 (14.6)	4 (2.5)	46 (27)	171 (100)
		Mentioned	142 (43.3)	34 (10.4)	59 (17.9)	35 (10.5)	59 (17.9)	329 (100)
		Total	222 (44.4)	50 (10.1)	84 (16.8)	39 (7.8)	105 (21)	500 (100)
Difficulties in accessing suppliers due to mobility restrictions	Wave 1	Not Mentioned	57 (23)	26 (10.5)	61 (24.7)	29 (11.5)	76 (30.4)	249 (100)
		Mentioned	91 (39.8)	29 (12.9)	45 (19.6)	25 (10.8)	39 (16.9)	228 (100)
		Total	148 (31)	55 (11.6)	106 (22.2)	53 (11.2)	114 (24)	477 (100)
	Wave 2	Not Mentioned	110 (41.7)	24 (8.9)	41 (15.6)	23 (8.9)	66 (24.9)	264 (100)
		Mentioned	112 (47.5)	27 (11.3)	43 (18)	15 (6.5)	39 (16.7)	236 (100)
		Total	222 (44.4)	50 (10.1)	84 (16.8)	39 (7.8)	105 (21)	500 (100)

Reduction in the availability/ price increases for the main inputs	Wave 1	Not Mentioned	64 (23.8)	25 (9.3)	58 (21.6)	28 (10.2)	94 (35.1)	269 (100)
		Mentioned	84 (40.4)	30 (14.6)	48 (23.1)	26 (12.4)	20 (9.6)	208 (100)
		Total	148 (31)	55 (11.6)	106 (22.2)	53 (11.2)	114 (24)	477 (100)
	Wave 2	Not Mentioned	27 (31.5)	1 (1.1)	13 (15.1)	9 (10.6)	36 (41.7)	86 (100)
		Mentioned	195 (47.1)	49 (11.9)	71 (17.1)	30 (7.2)	69 (16.7)	414 (100)
		Total	222 (44.4)	50 (10.1)	84 (16.8)	39 (7.8)	105 (21)	500 (100)
Difficulties with worker absenteeism	Wave 1	Not Mentioned	120 (29.8)	42 (10.5)	93 (23.3)	46 (11.5)	100 (24.9)	402 (100)
		Mentioned	28 (37.5)	13 (17.3)	13 (16.8)	7 (9.4)	14 (19)	75 (100)
		Total	148 (31)	55 (11.6)	106 (22.2)	53 (11.2)	114 (24)	477 (100)
	Wave 2	Not Mentioned	91 (40.1)	14 (5.9)	40 (17.4)	25 (11.1)	58 (25.4)	228 (100)
		Mentioned	131 (48)	37 (13.5)	44 (16.3)	14 (5)	47 (17.3)	272 (100)
		Total	222 (44.4)	50 (10.1)	84 (16.8)	39 (7.8)	105 (21)	500 (100)
Difficulties tending to my business b/c care giving	Wave 1	Not Mentioned	124 (29.4)	51 (12.1)	93 (22)	53 (12.5)	102 (24.2)	422 (100)
		Mentioned	24 (43.8)	4 (8.2)	13 (24.4)	1 (1.3)	12 (22.4)	55 (100)
		Total	148 (31)	55 (11.6)	106 (22.2)	53 (11.2)	114 (24)	477 (100)
	Wave 2	Not Mentioned	135 (44.5)	21 (6.9)	56 (18.4)	22 (7.3)	70 (22.9)	304 (100)
		Mentioned	87 (44.2)	29 (15)	28 (14.3)	17 (8.5)	35 (18)	196 (100)
		Total	222 (44.4)	50 (10.1)	84 (16.8)	39 (7.8)	105 (21)	500 (100)
Other difficulty (specify)	Wave 1	Not Mentioned	143 (31.3)	53 (11.5)	105 (22.9)	50 (11)	106 (23.2)	457 (100)
		Mentioned	5 (23.9)	3 (14.6)	1 (6)	3 (15)	8 (40.6)	20 (100)
		Total	148 (31)	55 (11.6)	106 (22.2)	53 (11.2)	114 (24)	477 (100)
	Wave 2	Not Mentioned	209 (45.5)	41 (8.9)	77 (16.8)	35 (7.6)	98 (21.3)	459 (100)
		Mentioned	13 (32.6)	9 (22.6)	7 (16.6)	4 (10.2)	7 (17.9)	41 (100)
		Total	222 (44.4)	50 (10.1)	84 (16.8)	39 (7.8)	105 (21)	500 (100)

No particular challenge	Wave 1	Not Mentioned	137 (31.3)	54 (12.3)	95 (21.7)	53 (12.1)	99 (22.7)	439 (100)
		Mentioned	11 (28.2)	2 (4.3)	11 (28.8)	0 (0)	15 (38.8)	38 (100)
		Total	148 (31)	55 (11.6)	106 (22.2)	53 (11.2)	114 (24)	477 (100)
	Wave 2	Not Mentioned	217 (45.1)	50 (10.5)	81 (16.9)	39 (8.1)	94 (19.5)	481 (100)
		Mentioned	5 (26.8)	0 (0)	3 (13.8)	0 (0)	11 (59.4)	19 (100)
		Total	222 (44.4)	50 (10.1)	84 (16.8)	39 (7.8)	105 (21)	500 (100)

Source: Constructed by authors using the ILO/ ERF COVID-19 Monitor

Meanwhile, the two least reported business challenges were difficulties tending to business because of care-giving commitments (196 out of 500 firms) and difficulties with worker absenteeism (272 firms). The majority of firms facing both challenges operates in manufacturing and agriculture. Out of the 500 firms surveyed in Tunisia, 38 reported facing no particular challenges due to the pandemic, most of which were in services (19 firms). The sector with the least reported business challenges was services, with 11 firms mentioning facing no business challenges (noting that firms were allowed to choose multiple responses for this question during the survey).



Sales and revenues

Firms surveyed in Tunisia were also asked about their total annual revenue in 2019, along with the percentage change between 2019 and 2020. In addition, firms were asked to report on the actual revenue change within the last 60 days compared to the same period the year before, along with their expectations for the coming 60 days. Table 4.1 shows the breakdown of total revenues in thousands of TND in 2019 by economic activity⁵.

Expectedly, the highest earners in 2019 were resilient firms that reported having business as usual at the time of the interview (327 firms, see table 3.5), with an average of TND 5.9 mn compared to a full sample average of TND 4.9 mn (see table 4.1 in the report for the first wave). The large difference between the mean and the median for the group of firms that reported different current businesses statuses can also be explained by a considerably large standard deviation, further indicating that the data for this group of firms is widely dispersed from the mean.

► **Table 4-1:** Sales and revenue change

	Percentage revenue change last 60 days compared to last year (%)						Expected percentage revenue change over the coming 60 days compared to last year (%)					
	Wave 1			Wave 2			Wave 1			Wave 2		
Economic activity	Mean	Median	Sd	Mean	Median	Sd	Mean	Median	Sd	Mean	Median	Sd
Manufacturing & agriculture	-37.1	-40.0	31.1	-39.7	-40	30.4	-10.9	-30	50.5	-28.6	-30	36.9
Construction	-44.0	-50.0	38.7	-50.9	-50	35.1	-14.6	20	67.9	-38.8	-50	43.5
Trade & retail	-19.9	-25.0	38.4	-42	-40	18.9	19.2	30	36.4	-28.5	-30	23.9
Accommodation & food	-58.5	-55.0	27.7	-71	-70	23.1	-0.1	-20	83.4	-51.3	-50	36
Services	-34.8	-40.0	38.5	-34.4	-30	40.5	-14.4	-30	41.3	-26.6	-30	32.6
All activities	-35.7	-40.0	36.7	-43.3	-40	32	-1.9	15	51	-31.5	-30	35.6

Current business status												
Temporary/ permanent closure (due to COVID-19)	-95.5	-100.0	7.7	-88.9	-100	21.5	0	0	0	-66.5	-60	30.8
Temporary/ permanent closure (not due to COVID-19)	-64.1	-60.0	29.5	-85	-85	7.1	0	0	0	-75	-75	35.4
Reduced hours (due to COVID- 19)	-48.3	-50.0	25.1	-50.5	-50	25.6	-34.1	-40	49.6	-42.4	-50	34.8
Business as usual	-26.8	-30.0	37.5	-38.1	-40	32.3	10.4	20	45.5	-25.4	-30	34.1
Do not know	-75.0	-80.0	15.9	-	-	-	-100	-100	0	-	-	-
Total	-35.7	-40.0	36.7	-43.3	-40	32	-1.9	15	51	-31.5	-30	35.6

Source: Constructed by authors using the ILO/ ERF COVID-19 Monitor

Overall, firms surveyed in the second wave reported an average decline in their percentage revenue change over the last 60 days from the time of the interview, with the largest decline recorded for firms in food and accommodation (71 average revenue decline). Firms in manufacturing and agriculture did not seem to be better positioned, yet it reported a decline in revenue over the past two months of 39.7 percent.

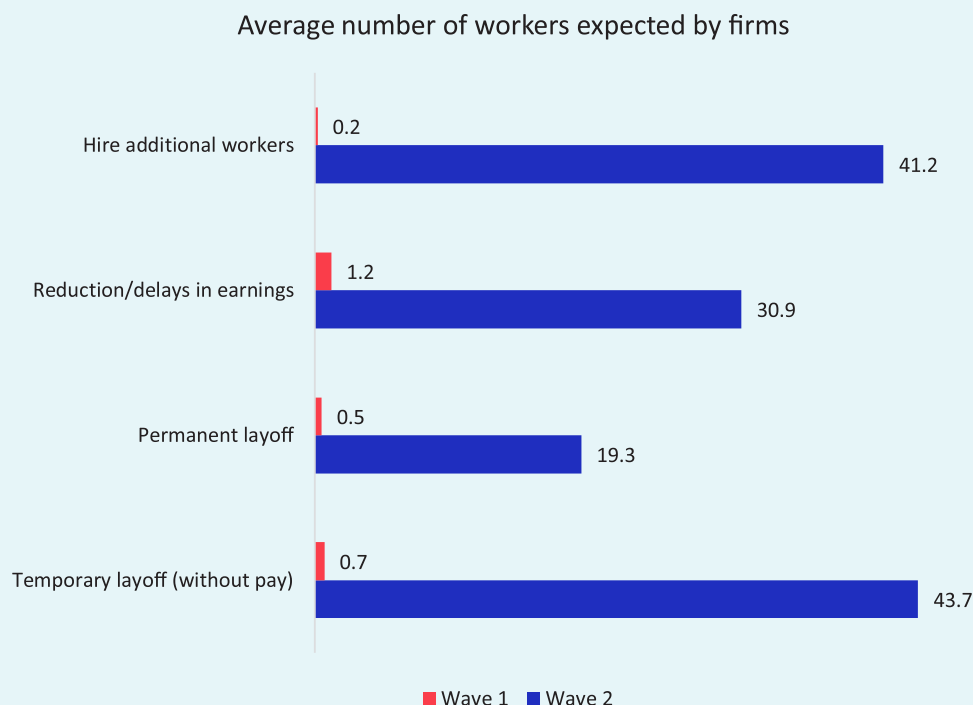
Their expectations of the same reference period for the coming 60 days, however, seem to be slightly more optimistic. Firms in food and accommodation expected revenue decline by 51.3 percent on average, and firms in manufacturing and agriculture anticipated a decline of 28.9 percent. In fact, all firms surveyed in the second wave expected revenue to decline over the next two months.

Employment

As shown in table 3.1, the mean number of employees increased across all economic activities by more than 13 workers between the first and second waves. In addition, firms were also asked about their expectations for the next six months regarding their workforce. Figure 5.1 shows the responses given by firms in terms of the number of workers they expect to hire, fire, and reduce or delay earnings of for the next six months from the time of the interview for both waves.

The difference in responses between both waves is quite stark. Firms in the first wave only expected to hire 0.2 additional workers on average. When asked the same question in the second wave, firms reported expecting to hire 41.2 workers on average. Although, the revenue figures do not reflect such optimism (which could be for technical reasons, see footnote 4), the hiring expectations suggest that firms expect to have improved business activities for the next six months. However, firms in the second wave also reported expecting to reduce and/or delay the earnings of 30.9 workers on average. More alarmingly, firms reported expecting to permanently lay-off 18.3 workers and temporarily lay-off 43.7 workers on average.

► **Figure 5-1:** Employment expectations



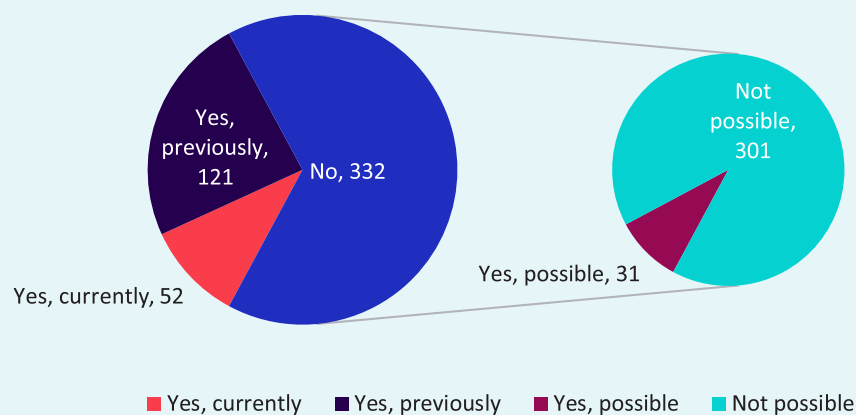
Source: Constructed by authors using the ILO/ ERF COVID-19 Monitor

Table 3.6 shows that 272 firms in the second wave reported having difficulties due to worker absenteeism since the start of the pandemic (compared to only 75 firms in the first wave). The surveyed firms were also asked about their prospects about remote employment and the difficulties experienced when workers were allowed (if allowed) to work remotely from home.

The distribution of firms by remote employment status is presented in table 5.2. Out of the 500 surveyed firms in the second wave, 121 observed firms had employees that previously worked remotely, 52 still had employees working remotely at the time of the interview and 332 reported that their employees never worked remotely since the start of the pandemic. Only a small fraction of the firms that had no remote workers (332), reported that it was possible for employees to work remotely (31 firms), while the majority reported that it was not possible for employees to work remotely (301).

► **Figure 5-2: Remote employment**

Workers ever worked remotely since February 2020: Out of those who said no, would it have been possible for workers to work from home?

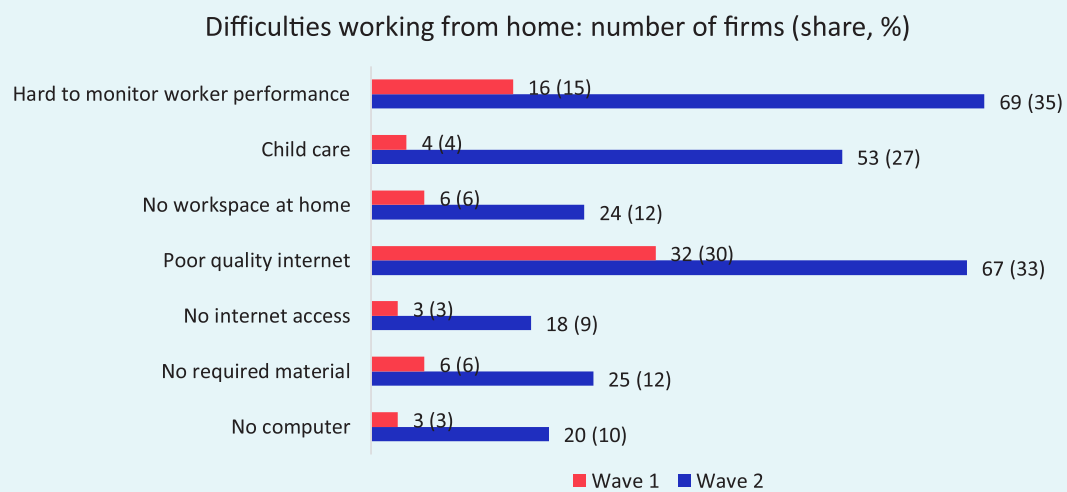


Source: Constructed by authors using the ILO/ ERF COVID-19 Monitor

Revisiting the firms that reported not having any remote workers, and to capture some of the issues faced by firms who wanted to have their employees work from home, figure 5.3 shows the distribution of the responses made by firms on difficulties faced with working from home arrangements.

Out of the 332 firms that reported having no remote workers, 35 percent cited the difficulty in monitoring worker performance as a result of remote employment, and 33 percent cited poor internet quality as the main impediment to making working from home arrangements. Also, a considerable share of the 332 firms, cited difficulties with childcare at home (27 percent). Only a few firms reported that their workers had no access to internet or computers at home and did not have the required material to facilitate remote employment.

► **Figure 5-3:** Difficulties with working from home



Source: Constructed by authors using the ILO/ ERF COVID-19 Monitor

Appendix

Inverse probability weighting was undertaken to account for the sampling strategy and non-response. Weights had the following inputs:

- Total number, T , of firms in the stratum, s , in the sampling frame (T_s)
- Number, N , of firms in the stratum, s , successfully completed in the sample (N_s)
- Share of firms successfully contacted in the stratum that were eligible (e_s)

The weight for a firm, f , in stratum s is calculated as:

$$w_{(f,s)} = (T_s * e_s) / N_s$$

We adjust the total number of firms in the sampling frame to account for the fact that not all firms were eligible by multiplying the sample frame number of firms in the strata, T_s , by the fraction eligible among contacted firms, e_s . Weights are then normalized to have a mean of one. The resulting weight is the same for all firms that are in the same stratum.

Acknowledgements

This report is funded by the Swedish International Development Cooperation Agency (Sida), in collaboration with the International Labour Organisation's (ILO), and the project Advancing the Decent Work Agenda in North Africa – ADWA' Project.

