

Monitoring COVID-19 impacts on firms in Ethiopia

Results from a High-Frequency Phone Survey of Firms

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INTRODUCTION



The COVID-19 pandemic and its negative economic effects create a need for timely data and evidence to help monitor and mitigate the social and economic impacts of the crisis. To monitor the impacts of the COVID-19 pandemic and related containment measures on formal firms in Ethiopia and inform the policy response, the World Bank, in collaboration with the Jobs Creation Commission (JCC), is implementing a high-frequency phone survey of firms (HFPS-F). The HFPS-F interviews a sample of firms in Addis Ababa every three weeks for a total of eight survey rounds, and an additional sample of firms in four other cities in Ethiopia (Adama, Bahir Dar, Hawassa, and Mekelle) for a total of seven rounds. This high-frequency follow-up allows for a better understanding of the effects of and responses to the COVID-19 pandemic on firm operations, hiring and firing, and expectations of future operations and labor demand in order to better tailor and implement interventions and policy responses and monitor their effects. The sampling strategy is explained in detail in a companion technical note.

This note summarizes the results of round 3 (R3) of the HFPS-F¹, implemented between May 29 and June 18, 2020 in Addis Ababa². While the original sample in Addis Ababa consisted of 645 firms, only 550 of those firms responded to the R2 survey and 513 to the R3 survey. The information presented here is based on the sample of 513 firms³ that responded to the round 1 (R1), round 2 (R2), and round 3 (R3) surveys.

KEY HIGHLIGHTS – ROUND 3

- ! The gradual re-opening of firms has resumed between R2 and R3, with half of firms in Addis Ababa being operational on a full-time basis during the reference period (May 8 – June 18). 27 percent of firms were closed during this period. Overall, 17 percent of firms have been closed since April 1, 2020.
- ! In contrast to expectations, the gradual resumption of activity has not translated into a rebound in firm earnings. Close to 40 percent of firms reported zero revenues in the last completed month (in most cases, May 2020) and median and mean earnings remained low across the board and unchanged from R2.
- ! Though firms have restarted operations, capacity utilization remains low at 35 percent. Firms' operations and revenues have been severely affected by a steep COVID-induced slump in demand. Expectations remain grim, with a higher share of firms expecting to let go of workers than to hire workers.
- ! A small share of firms—four percent—laid off workers between R2 and R3, equally affecting permanent and temporary workers. Overall, 15 percent of firms in Addis Ababa have laid-off workers since the start of the HFPS-F, while five percent hired workers over the same period.

¹ Data collection was undertaken by Laterite (Ethiopia) Ltd.

² At the beginning of R3 on May 29, the country's total confirmed Covid-19 cases were 968. By the end of R3, on June 18, the confirmed cases had increased to 3,954.

³ Though we use the term "firm" for ease of understanding, our sample actually consists of establishments. An establishment is an economic unit that produces one predominant activity, typically at a single physical location. A firm, on the other hand, can consist of one or more than one establishment.

! Firms still consider the waiving of tax payments as the most appropriate policy measure to help them weather the storm. An increasing share of firms also highlights the importance of accessing working capital at beneficial terms to cope with an interruption in cash flow.

FIRM OPERATIONS AND LABOR



RECENT OPERATING PERFORMANCE



Evidence suggests that containment measures following the COVID-19 pandemic has caused a perceptible decline in demand, severe disruptions to supply chains and fall in equity markets have affected current operations as well as prospects of firms across the globe. Firms in Ethiopia are no exception. The survey confirms that firms' operations have been heavily affected by the consequences of COVID-19.

The progressive reopening of firms has continued in R3, though at a slower pace than observed in R2. In the 21 days preceding the R3 survey (spanning the period between May 8 and June 18, 2020, depending on when the firm was interviewed), half of firms in Addis Ababa were operational on a full-time basis, compared to 42 percent in R2 (full-time operational means that the firm was operational between 15 and 21 days in the past 21 days). On the other hand, the share of firms that remain closed has not changed between R2 and R3: 27 percent of firms in Addis Addis Ababa remained closed during the reference period (Table 1). Overall, 17 percent of firms have now remained closed since the first survey was fielded (they have been closed since April 1, 2020)⁴. It remains a question whether these firms will re-open or whether this long inactivity will result in permanent closure.

Similar to R2, firms active in industry were most likely to be closed in the 21 days prior to R3. Own-account firms are still most likely to remain closed, while two-thirds of small, medium and large (SML) firms were again full-time operational in R3 (Table 1).

Table 1: Share of firms by days operational in last 21 days (April 15- May 27, 2020)

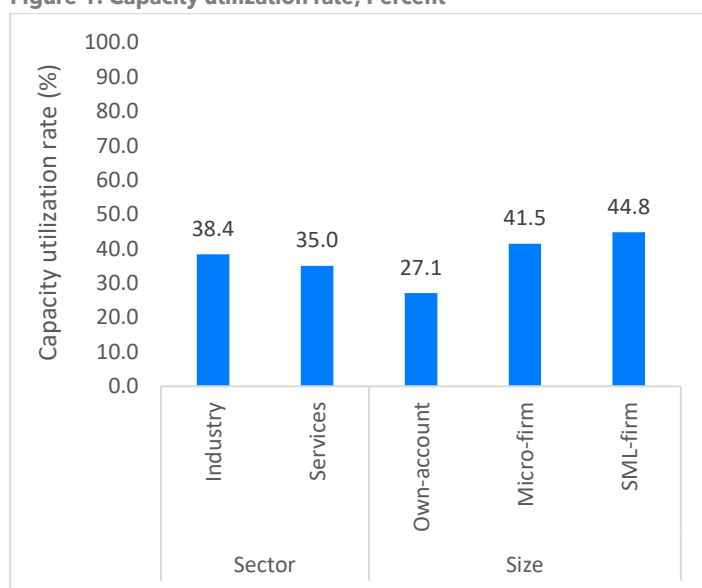
	Full sample		Industry		Services		Own-account		Micro-firm		SML firm	
	R2	R3	R2	R3	R2	R3	R2	R3	R2	R3	R2	R3
0 days	29.0	27.3	34.8	34.8	28.0	26.1	35.3	37.4	23.6	19.9	22.7	16.2
1-9 days	17.7	12.6	10.9	13.8	18.9	12.3	21.0	13.3	16.5	13.5	6.6	7.0
10-14 days	11.4	10.1	20.1	10.9	9.8	10.0	8.6	9.4	14.4	10.9	19.3	10.1
15-21 days	41.9	49.9	34.2	40.6	43.3	51.6	34.9	39.9	46.8	55.7	51.3	66.7

Note: SML denotes small, medium, and large firms (6 or more payroll employees).

Though firms have gradually re-opened, capacity utilization remains low. Average capacity utilization rate in the three weeks preceding R3 amounted to 35 percent, with little variation across sector (Figure 1). Own-account firms had the lowest capacity utilization rate at 27 percent. The construction sector is most likely to be operating at full capacity, while the opposite is true for the tourism and hospitality sector.

⁴ 22 percent of own-account firms have been closed since April 1, 2020.

Figure 1: Capacity utilization rate, Percent



Note: SML denotes small, medium, and large firms (6 or more payroll employees).

EMPLOYMENT



Reflecting the economic uncertainty, firms are largely refraining from hiring workers. In the 3 weeks preceding the R3 interview, only two percent of firms (13 firms in the sample of 513) hired new workers. A slightly higher share of firms—four percent—has laid off workers between the R2 and R3 interviews⁵. Layoffs are still rare considering the severity of the shock to firms' operations and revenues, which is likely related to the State of Emergency directive, which prohibits firms from laying off employees. Between R2 and R3, lay-offs were equally likely to affected permanent and temporary workers (whereas before it mainly affected temporary workers⁶). Overall, 15 percent of firms have laid-off at least one worker since April 1, 2020 (the start of the reference period for R1). Firm in the industry sector are more likely to have laid-off workers (24 percent) compared to firms in services (12 percent). Five percent of firms have hired workers since April 1, 2020.

Firms are still granting leave to their workers, with 45 percent of SML firms and 19 percent of micro-firms granting leave to their workers in the three weeks preceding the R3 survey; the large majority of which were granted paid leave. While the number of workers granted leave decreased between R1 and R2 (in line with the reopening of businesses between R1 and R2), more workers were granted leave again between R2 and R3, especially in the services sector. In line with this, the share of firms that are fully staffed (in the sense of all the firms' workers being at work) declined from 62 percent in R2 to 58 percent in R3.

OUTLOOK



Hiring intentions remain subdued. About two percent of firms reported they intend to hire new workers in the coming two weeks. This is similar to hiring intentions in R2. Expectations for future layoffs have remained stable as well. In R3, seven percent of firms expected to lay-off workers in the coming two weeks and 19 percent of firms expected to lay-off workers in the coming three months (Table 2). The corresponding figures in R2 were eight percent and 19 percent, respectively (Table 2). The fact that certain firms have already adjusted their workforce following the COVID-19 shock may have contributed to the

⁵ This only refers to firms that had/have employees. Own-account firms cannot lay off workers and are thus not asked this question in the survey.

⁶ This should be interpreted with caution, as there were only 25 lay-offs in the sample between R2 and R3.

stable layoff expectations. Expectations of future hiring and firing are predictive of actual hiring and firing activity (Box 1).

Table 2: Share of firms that expect to let go workers in the coming 2 weeks and the coming 3 months, R1 - R3, Percent

	Full sample			Industry			Services		
	R1	R2	R3	R1	R2	R3	R1	R2	R3
Firm expects to lay-off workers in coming 2 weeks	17.3	8.5	7.3	13.4	11.3	4.1	18.2	7.3	8.0
Firm expects to lay-off workers in coming 3 months	26.9	18.8	18.7	27.0	19.1	23.0	26.8	18.2	17.6

Note: The numbers in the table concern firms that were interviewed in R1, R2 and R3. Numbers in the table show the share of firms that expect to let go workers in the next 2 weeks and 3 months. SML denotes small, medium, and large firms (6 or more payroll employees).

In R1, 27 percent of firms reported having decided to cancel or postpone new investments in fixed assets. This increased slightly to 30 percent in R2 and remained unchanged in R3 (30 percent).

REVENUES AND PROFITS



The analysis of the second survey round showed that firms' revenues further declined between R1 and R2 despite firms having gradually re-started their operations. R3 shows a similar pattern, with firm revenues continuing their slump despite the re-opening of more businesses. In R3, 39 percent of firms reported zero revenues in the last completed month (which, for most firms, refers to May 2020), unchanged from R2 (Table 3). Firms in the industry sector are most likely to report zero revenues, as are own-account firms. Median monthly revenues remained the same in R3, with the median firm earning only ETB 1,500 in May 2020. Median revenues in the industry sector remained at zero and median revenues of small, medium and large (SML) firms amounted to ETB15,000. Average, as opposed to median, revenues also remained stable at just over ETB 100,000 per month.

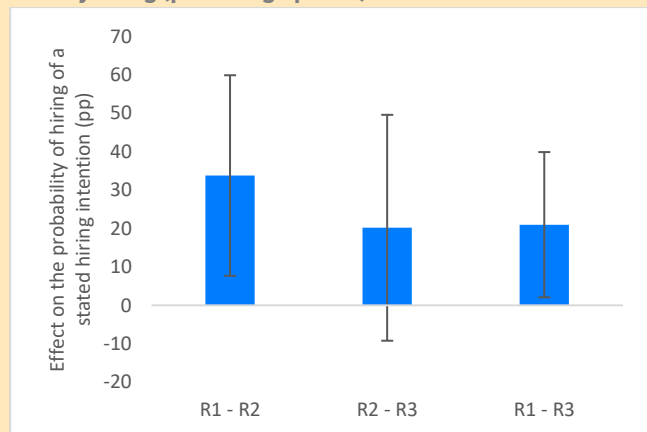
As the slump in firms' revenues persists, profit expectations for this financial year have continued to worsen. Whereas in R1, when the COVID-19 outbreak in Ethiopia had just started, 58 percent of firms expected profits to be "much lower" this FY, this had increased to 69 percent by R3.

BOX 1: WHAT DO INTENTIONS ON HIRING AND FIRING MEAN FOR ACTUAL RECRUITMENT AND LAYOFFS?

The questionnaire of the high-frequency phone monitoring survey includes both backward- and forward-looking questions. On employment, the backward-looking questions ask whether the firm has hired or fired workers since the last interview (which corresponds to the last 3 weeks), while the forward-looking questions probe whether the firm intends to hire workers in the coming 3 weeks or lay-off workers in coming 3 weeks or 3 months. Ideally, the forward-looking questions would provide a meaningful indication of subsequent actual hiring and firing activity. Three rounds into the high-frequency survey, what is the preliminary evidence?

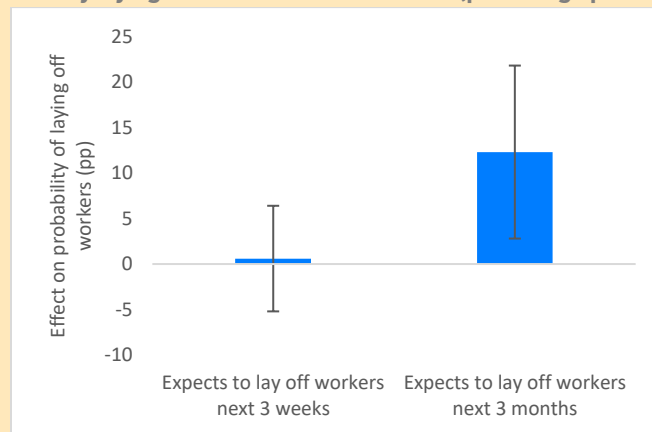
Observed hiring is strongly related to stated hiring expectations. Firms that stated an intention to hire during the R1 survey were 33 percentage points more likely to have recruited workers between R1 and R2, and firms that stated an intention to hire in the R2 survey were 20 percentage points more likely to have hired between R2 and R3 (Figure 2). Overall, on the pooled data, firms with hiring intentions were 21 percentage points more likely to actually hire worker(s) in the three weeks following the stated intention relative to firms without hiring intentions.

Figure 2: Effect of stated hiring intention on the probability of actually hiring (percentage points)



Note: Bars show the effect of hiring intentions on actual hiring behavior in percentage points (based on logistical regressions).

Figure 3: Effect of stated lay-off intentions on the probability of actually laying off workers in next 3 weeks (percentage points)



Note: Bars show the effect of lay-off expectations on subsequent lay-off behavior in following 3 weeks in percentage points.

Firing intentions are also predictive of subsequent firing behavior, though the associations are less strong than for hiring. Firms that stated a short-term firing expectation (they expect to lay-off workers in the coming 3 weeks) were 11 percentage points more likely to actual lay-off a worker over this period relative the firms with lay-off expectations. Curiously, long-term firing expectations are so far a better gauge of short-term firing behavior than short-term firing expectations. Firms that expected to lay off workers in the coming 3 months were 13 percentage points more likely to actually lay-off workers in the subsequent 3 weeks. In a logistical regression framework, the probability of having laid off workers over the past 3 weeks is strongly related to long-term lay-off expectations (as stated 3 weeks before) but not to short-term lay-off expectations (Figure 3).

Table 3: Last month's revenue levels

	Full sample			Industry			Services			Own account			Micro-firms			SML firms		
	R1	R2	R3	R1	R2	R3	R1	R2	R3	R1	R2	R3	R1	R2	R3	R1	R2	R3
Firms with zero revenue last month	35.9	40.1	39.0	46.6	56.9	58.7	33.8	37.2	35.5	32.4	43.5	44.2	42.1	36.3	33.7	28.9	39.4	36.5
Median revenues last month (thousands ETB)	2.0	1.5	1.5	2.0	0.0	0.0	2.0	1.5	2.0	1.0	0.6	0.5	2.0	2.0	3.0	70.0	15.0	30.0

Note: Revenue levels refer to the last completed month. All revenues are in thousands of ETB. SML denotes small, medium, and large firms (6 or more payroll employees).

Table 4: Ways in which firms are affected by COVID-19, Percent

	Full sample			Industry			Services			Own account			Micro-firms			SML firms		
	R1	R2	R3	R1	R2	R3	R1	R2	R3	R1	R2	R3	R1	R2	R3	R1	R2	R3
Low demand for products/services	62.6	82.2	80.7	59.9	72.4	74.8	63.0	83.9	81.7	58.9	83.9	81.5	66.0	80.0	79.0	65.0	83.8	83.1
Lower supply of raw materials and intermediate goods	7.9	6.7	10.0	16.3	11.0	13.9	6.4	5.9	9.4	5.2	9.2	9.1	8.2	3.0	7.8	17.0	10.0	20.7
Restricted movement of workers	25.4	21.6	26.5	30.1	25.3	29.9	24.6	20.9	26.0	22.1	18.3	21.0	25.2	24.8	30.6	37.8	21.7	32.5
Forced closure of business	27.9	18.7	23.5	13.0	19.3	26.0	30.6	18.6	22.7	26.9	20.1	28.3	31.4	17.6	18.3	20.2	17.7	21.1
Closure of marketplace/shops	14.5	8.0	9.6	11.4	2.1	3.3	15.1	9.0	10.6	18.5	9.0	11.9	10.0	8.2	9.5	15.1	4.0	1.6
Higher price of raw materials and intermediate goods	7.2	11.2	15.4	16.2	18.1	19.4	5.6	10.0	14.8	7.1	11.4	13.2	6.9	10.1	15.0	9.1	14.1	24.8

Note: The numbers in the table concern firms that were interviewed in both R1, R2 and R3. Other ways in which firms are affected by COVID-19 were marginal in terms of importance and are not shown in the table.

COVID IMPACT AND RESPONSE



In R3, almost all firms (99 percent) reported being impacted by the COVID-19 pandemic. The channels through which firms are affected by COVID-19 have remained largely unchanged since R2, with the collapse in demand being by far the main mechanism of impact (81 percent of firms in R3). Compared to earlier rounds, insufficient access to raw materials and intermediate goods has gained in importance in R3, with 10 percent of firms reporting lower supply and 15 percent reporting higher prices. Lower supply or higher prices of raw materials and intermediate goods has especially become an issue of small, medium and larger firms (Table 4).

FINANCIAL IMPACT



As a result of the COVID-19 pandemic, firms face significant financial stress. Contrary to R1 and R2, during which paying rent was the main financial problem faced by firms, firms now highlight the non-descript category of “other expenses” as their main financial problem (51 percent of firms in R3). Paying rent remains however an important issue, with 41 percent of firms reporting this as a main financial problem (Table 5). Repayment of loans has become more of an issue for larger firms in R3, though numbers need to be interpreted with caution given the small number of SML firms in the sample (63 firms in R3).

Firms were asked to indicate the policy measures that would be most appropriate to help them weather the COVID storm. In all survey rounds, most firms indicated waiving of tax payments as the most appropriate policy measure (Table 6). The share of firms indicating this as the most appropriate policy measure increased substantially between R1 and R2 and remained unchanged between R2 and R3. Compared to R1 and R2, a higher share of firms in R3 indicate that the provision of working capital at concessional terms would be an appropriate policy measure to cope with interrupted cash flows amidst the financial fallout caused by COVID-19. 23 percent of larger firms (SML firms in Table 6) also indicate wage subsidies as main policy responses to help them through the COVID crisis. So far, four percent of firms reported to have received some form of government support since the start of the pandemic in Ethiopia.

Table 5: Financial problems currently faced by firms, (%)

	Full sample			Industry			Services			Own account			Micro-firms			SML firms		
	R1	R2	R3	R1	R2	R3	R1	R2	R3	R1	R2	R3	R1	R2	R3	R1	R2	R3
Staff wages and social security contributions	19.0	25.5	22.5	31.9	37.7	44.4	16.7	23.4	18.6	1.3	2.9	3.1	31.0	39.0	34.0	43.3	62.2	53.4
Rent	41.8	44.9	41.0	29.5	35.4	36.1	44.0	46.6	41.9	38.2	44.9	40.2	46.5	45.5	42.9	38.5	43.4	38.1
Repayment of loans	10.3	10.8	10.8	18.3	8.2	12.2	8.9	11.2	10.5	8.8	9.4	7.7	8.6	10.4	9.1	21.5	17.1	27.1
Payments of invoices	27.9	37.0	35.3	19.3	31.6	20.9	29.5	37.9	37.9	32.3	44.9	44.5	24.1	32.1	30.1	25.0	24.9	20.1
Payment of other expenses	27.3	34.4	51.1	22.0	32.1	37.4	28.2	34.8	53.5	39.9	45.2	61.2	18.7	28.8	48.9	9.7	13.8	22.0

Note: The numbers in the table concern firms that were interviewed in both R1 and R2. SML denotes small, medium, and large firms (6 or more payroll employees).

Table 6: Most relevant policy measures to help firms through the crisis, according to firms (% of firms)

	Full sample			Industry			Services			Own account			Micro-firms			SML firms		
	R1	R2	R3	R1	R2	R3	R1	R2	R3	R1	R2	R3	R1	R2	R3	R1	R2	R3
Covering, reducing, or freezing of operational costs such as costs for sheds and working spaces	22.5	19.4	21.2	17.6	16.4	18.8	23.4	20.1	21.6	21.7	17.7	20.5	25.0	24.0	24.7	16.7	10.0	12.2
Reduction or deferral of payroll taxes or providing wage subsidies	6.0	4.9	4.2	5.6	5.3	8.4	6.0	4.8	3.5	2.1	1.6	0.4	6.3	3.8	2.6	18.9	20.4	22.8
Waiving taxes payment (corporate income tax, VAT, private pension contribution, excise tax)	40.3	50.8	49.5	34.4	39.1	38.7	41.3	52.8	51.5	41.1	54.7	52.5	42.0	48.9	49.2	31.3	42.8	40.2
Freeze of loan repayment, extension of loan terms, or partial debt relief	13.9	11.6	10.9	20.6	6.6	10.0	12.7	12.5	11.1	13.1	10.0	11.0	13.4	12.3	9.0	18.5	15.2	17.0
Providing access to capital through financial grants	11.9	13.9	17.0	12.8	11.4	15.8	11.7	14.5	17.3	14.2	16.0	16.7	9.9	11.4	16.7	9.9	15.0	18.6
Providing access to capital through access to zero-interest loans	9.1	17.7	22.3	7.0	24.4	22.3	9.5	16.5	22.3	5.6	15.0	21.3	11.7	20.5	24.8	13.2	18.1	17.9

Note: The numbers in the table concern firms that were interviewed in both R1 and R2. Other potential policy measures were marginal in terms of importance and are not shown in the table. SML denotes small, medium, and large firms (6 or more payroll employees).

PROTECTING EMPLOYEES' HEALTH AND SAFETY



COVID-19 does not only seriously impact firms' financial prospects, it also changes how firms operate. The R1 survey showed that firms in Addis Ababa had taken measures to increase the occupational health and safety of their employees. R2 showed that firms had scaled up these measures. Results from R3 show that firms have further called up these measures, with a higher share of firms promoting strict social distancing in the office (44 percent in R3), providing alcohol, soap or sanitizers in the workplace (77 percent in R3), and providing protective gear (79 percent in R3). These represent increases from R2.

UPCOMING ACTIVITIES



This summary brief is the third in a series of briefs reporting on the findings of the high-frequency phone survey of firms. This brief reports on findings from R3 of the phone survey for which firm owners or managers in Addis Ababa were interviewed about the effects of and responses to the COVID-19 pandemic between May 29 and June 18, 2020. Data collection continues in the coming months by following the same firms every three weeks. Round 4 of data collection started on June 22, 2020 and includes the follow-up of the existing sample of firms in Addis Ababa as well as a sample of firms in Adama, Bahir Dar, Hawassa, and Mekelle. Each round's summary brief, table of indicators, and microdata will be made available via the following website: <https://www.worldbank.org/en/country/ethiopia/brief/phone-survey-data-monitoring-covid-19-impact-on-firms-and-households-in-ethiopia>.

BOX: SURVEY METHODOLOGY

The high-frequency phone monitoring survey monitors the economic impacts of and responses to the COVID-19 pandemic on firms with a focus on the effects on firm operations, revenues, and jobs. We call a sample of firms every three weeks between mid-April and mid-September 2020 for a total of eight survey rounds in Addis Ababa and seven survey rounds in other cities. The final dataset will consist of a panel of approximately 800 firms (500 in Addis Ababa and 300 in four other cities—Adama, Bahir Dar, Hawassa, and Mekelle).

The sampling procedure was undertaken in three steps. First, the team cleaned the list of registered firms in number in Addis Ababa, Adama, Bahir Dar, Hawassa, and Mekelle, received from the Ministry of Trade and Industry (MoTI), by removing firms with missing or invalid phone numbers. Second, all phone numbers of the cleaned list of firms were shared with EthioTelecom and only active phone numbers were kept constituting the sampling frame. Third, two survey domains were selected (Addis Ababa and other cities) and the team drew a random sample of firms without replacement, stratified by firm size (proxied by capital) and sector (industry and services). The sample size was set by a tight budget envelope, with a panel of 500 firms in Addis Ababa and 300 firms in other cities after round 8 (7) of the survey operation. Expecting a high non-response rate, we drew a sample of 1,550 firms for Addis Ababa and 800 (200 in each city) firms in other cities.

Data collection parameters, round 3

- ❖ Data collection period: May 29 to June 18, 2020
- ❖ Response rate: 93 percent (of the R2 sample of 550)
- ❖ Sample size: 513 firms in Addis Ababa
- ❖ Average duration of interview: 14 minutes