

Monitoring COVID-19 impacts on firms in Ethiopia

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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 government, 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 the first round of the HFPS-F, implemented between April 15 and May 5, 2020 in Addis Ababa. The information presented here is based on a sample of 645 firms¹ in the industry and services sector based on a list of registered firms provided by the Ministry of Trade and Industry.

KEY HIGHLIGHTS – ROUND 1

- COVID-19 and related containment measures have substantially impacted firms' operations in Addis Ababa. Over 42 percent of businesses have completely ceased operations during the reference period (April 1 to May 4, 2020) and 37 percent of businesses had no revenues in the last completed month (either March or April). Profit expectations have taken a beating, with 88 percent of firms expecting this fiscal year's profits to be lower or much lower than last year.
- Firms are primarily affected by a significant fall in demand for products and services. Restricted movement of workers forced closure of businesses, and closure of marketplaces are other channels through which the pandemic and related containment measures have affected firms.
- According to firms, the most relevant policy measures to help them weather the storm would be waiving of tax payments, covering operational costs (such as rent), and various measures to help firms repay or restructure loans.
- The employment effect of this shock to firm operations has, so far, been minor, with few firms laying-off workers, likely related to the State of Emergency proclamation which does not allow firms to lay-off workers. Rather, workers have been granted paid leave. However, firms expect to shed 14 percent of their payroll in the next two weeks and 20 percent in the next three months.
- While all firms, regardless of sector and size, have been affected by the shock, the construction sector appears relatively less affected so far.

¹ 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.

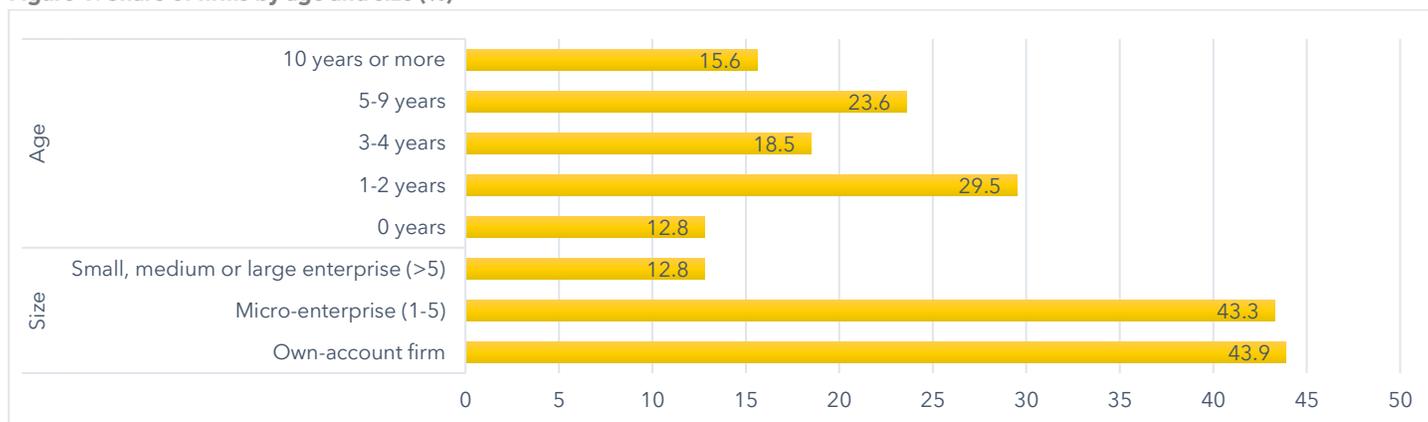
FIRM PROFILE



Our sample of firms includes registered firms operating in the industry and services sector. The majority of formal firms in Addis Ababa are operating in the services sector (85 percent). Wholesale and retail trade account for close to 43 percent of all firms, followed by transportation and storage (17 percent) and tourism and hospitality (14 percent). Firms operating in construction and manufacturing represent about seven percent of firms in Addis Ababa. The bulk of firms are domestic while a few are foreign-owned or joint ventures. Six percent of firms in Addis Ababa earn parts of their revenues from exports. Manufacturing firms are more likely to export than services firms.

On average, firms are young and small. Approximately 13 percent of firms are new firms (did not exist one year ago), 30 percent are between 1 and 2 years, 19 percent between 3 and 4 years. Only 16 percent of firms are 10 years or more (Figure 1). The youthfulness of firms in the sample closely matches the data on the population of firms and is a common pattern in most low-income countries². Most firms are own-account firms (only the owner works in the firm and there are no payroll employees), followed by micro-firms (1 to 5 payroll employees). Given the low prevalence of small (6 to 30 employees), medium (31 to 100 employees), and large (100 or more employees) firms, these three categories are lumped together for analytical reasons. The average (median) firm has 5.8 (1) payroll employees³, with firms in industry being bigger than those in services (the median number of employees in industrial firms is 3 and in services 1). The skewed distribution in terms of size with a preponderance of very small firms and very few larger firms is also typical of low- and lower middle-income countries⁴.

Figure 1: Share of firms by age and size (%)



The bulk of payroll employees in the sample of firms are men and are on permanent contracts. Though firms in the services sector are on average smaller, their ubiquity means that they nevertheless account for the largest share of employment. Relative to the average, women are overrepresented in commerce and services. Temporary employment is equally common in industry and services.

For firms that have operated for more than one year, the modal annual sales revenue in the past fiscal year (Ethiopian Fiscal Year (EFY) 2011) was less than ETB 50,000, highlighting the small scale of most formal firms. Revenues are higher for firms that are active in industry (modal revenue of between ETB 1 and 10 million), in line with industry firms being substantially bigger than services firms (Table 1). Revenues increase with firm size. Overall, sales revenues in EFY2011 were relatively low except for a small number of large firms with very high revenues.

² In the population of firms in Addis Ababa (the sampling frame), 9 percent are new firms (less than 1 year), 34 percent are between 1-2 years, and 20 percent between 3-4 years.

³ Own-account firms have zero employees (we do not count the owner as an employee).

⁴ Hsieh, C. and Olken, B. (2014). "The Missing "Missing Middle". *Journal of Economic Perspectives* 28(3): 89-108.

Table 1: Share of firms by last fiscal year's (EFY 2011) annual revenue (%)

	Firm sector			Firm size		
	Total	Industry	Services	Own-account	Micro-firm	SML firm
Less than 50,000 Birr	19.3	12.3	20.4	33.4	11	1.9
50,000- 100,000 Birr	13.6	10.1	14.3	16.4	14.3	3.2
100,000 - 500,000 Birr	14.8	18.3	14.2	12.5	19.8	6.3
500,000 - 1 million Birr	5.1	12.5	3.7	3.4	7.3	3.2
1 - 10 million Birr	12.2	22.4	10.2	4.7	12.7	33.2
Over 10 million Birr	4	5.5	3.6	7	3.1	17.1
Don't Know	13.8	2.9	16	11.6	15.6	14.9
Refused	13.1	11.9	13.4	11.8	12	20.2
Not Applicable	4.2	4.1	4.1	5.6	4.3	0

Note: Only for firms that were already in operation one year ago. SML denotes small, medium, and large firms (6 or more payroll employees).

FIRM OPERATIONS AND LABOR



Emerging evidence suggest 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 that have affected current operations as well as prospects of firms across the globe. Indeed, firms in Ethiopia are no exception. The survey confirms that firms' operations have been heavily affected by the consequences of COVID-19.

RECENT OPERATING PERFORMANCE



In the 14 days preceding the survey (between April 1 and May 4, 2020, depending on when the firm was interviewed), 42 percent of firms in Addis Ababa completely ceased operations (were operational zero days). On the other end, 29 percent of firms were operational on a full-time basis (between 10 and 14 days in the past 14 days). While there are little differences between sectors, larger firms were more likely to continue operating than smaller ones: 41 percent of small, medium, and large (SML) firms were operational full-time between April 1 and April 21, compared to 29 percent of micro-firms and 24 percent of own-account firms. Own-account and micro-firms were most affected by business closures (Table 2).

Table 2: Share of firms by days operational in last 14 days (April 1- April 21, 2020)

	Firm sector			Firm size		
	Total	Industry	Services	Own-account	Micro-firm	SML firm
0 days	42	43.7	41.7	44.9	43.6	26.9
1-5 days	17.2	18.9	16.8	20.7	15.4	11.2
6-9 days	12.3	15.6	11.6	10.1	12	20.6
10-14 days	28.5	21.8	29.9	24.2	29.1	41.3

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

OUTLOOK



Despite not being fully operational, only few firms report to have laid-off workers. Of the firms who have employees (excluding own-account firms), four percent had laid off workers in the two weeks preceding the survey. Layoffs were slightly more common in industry (7 percent of firms) than in services (4 percent), and more common among micro-firms (4 percent) than SML firms⁵. Overall, the numbers are small and do not allow an accurate disaggregation by sector and size. The low incidence of layoffs is likely related to the

⁵ In the sample, 119 workers were laid-off in the 14 days preceding the survey, the large majority of which were temporary workers. Women were also overrepresented among the lay-offs, likely because women are more likely to be in temporary employment.

State of Emergency directive, which states that firms cannot lay off employees⁶. Rather than laying-off workers, firms have granted them leave, with 52 percent of large firms and 24 percent of micro-firms granting leave to their workers in the two weeks preceding the survey; the large majority of which were granted paid leave.

Table 3: Expected number of job losses in the coming 2 weeks and 3 months

	Firm sector			Firm size		
	Total	Industry	Services	Own-account	Micro-firm	SML firm
Average # of workers gone in 2 weeks	1.2	2.7	0.8	n.a.	0.3	4.1
As a share of payroll (%)	14.1	8.8	15.4	n.a.	14.7	12.1
Average # of workers gone in 3 months	1.9	6.8	0.7	n.a.	0.4	6.9
As a share of payroll (%)	19.8	18.2	20.2	n.a.	19.3	21.3

Note: Numbers in the table show the average number of workers a firm expects to let go in the next 2 weeks and 3 months. Own-account firms are not included. SML denotes small, medium, and large firms (6 or more payroll employees). N.a. means not-applicable (own-account firms cannot lay-off workers).

Firms have also decided to cancel or postpone new investments in fixed assets. Approximately 37 percent of firms active in industry and 26 percent of firms active in services have decided to cancel or postpone investments. Close to half (47.5 percent) of SML firms decided to postpone or cancel planned investments. This slowdown in investment may negatively affect job creation in the coming months.

REVENUES AND PROFITS



Firms' revenues significantly declined since the onset of COVID-19. A staggering 37 percent of firms in Addis Ababa earned no revenue in the last completed month (March or April 2020, depending on the time of interview). Micro-firms were particularly hard-hit, with 41 percent having zero revenues (Table 4). SML enterprises were most likely to still earn revenues, which is consistent with the earlier finding that they were more likely to have remained operational (Table 2). Median revenues in the last completed month amounted to a low ETB 2,000 (roughly equivalent to the average monthly wage in Addis Ababa in 2018). To showcase the loss in revenue, a comparison with revenues in the same month of last year shows that 89 percent of firms had lower revenues this year⁷. On average, revenues in the last completed month were at 30 percent of revenue levels in the same month of last year.

Table 4: Last month's revenue levels and comparison with same month last year

	Firm sector			Firm size		
	Total	Industry	Services	Own-account	Micro-firm	SML firm
Firms with zero revenue (%)	36.6	48.6	34.2	34.6	41.1	28.4
Median revenues	2,000	1,000	2,000	1,000	2,000	67,000
Mean revenues	119,954	289,095	85,962	9,864	91,042	626,071
Lower than last year (%)	88.7	77.4	91.1	89.6	86.8	88.7

Note: All revenues are in ETB. For comparison with same month of last year, only firms that existed last year are included. SML denotes small, medium, and large firms (6 or more payroll employees). Revenue values of last year are inflated and expressed in average March to April 2020 prices.

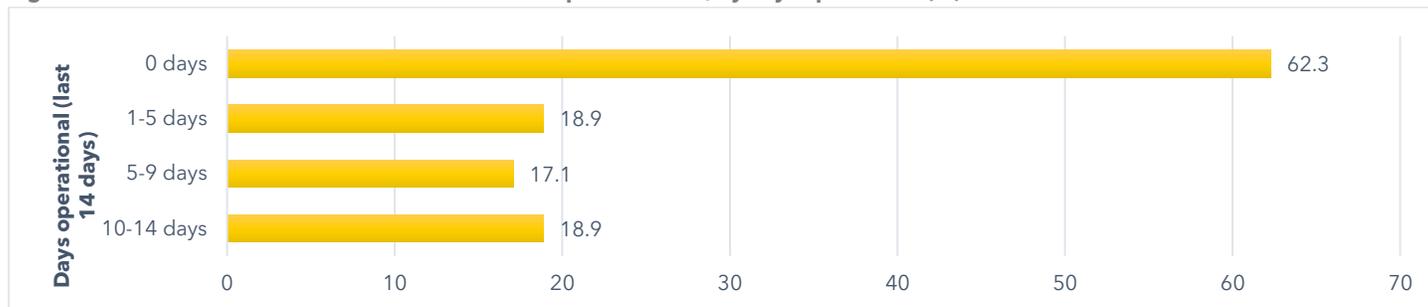
Even firms that remained partially or fully operational experienced a sharp decline in revenues. Approximately 19 percent of firms that were fully operational in the 14 days preceding the survey earned no revenues at all in the last completed month (Figure 2). On average, revenues in the last completed

⁶ Due to this directive, firms may have underreported the incidence of layoffs in the survey.

⁷ To compare last year's with this year's revenues, values are deflated using the Addis Ababa Consumer Price Index (CPI).

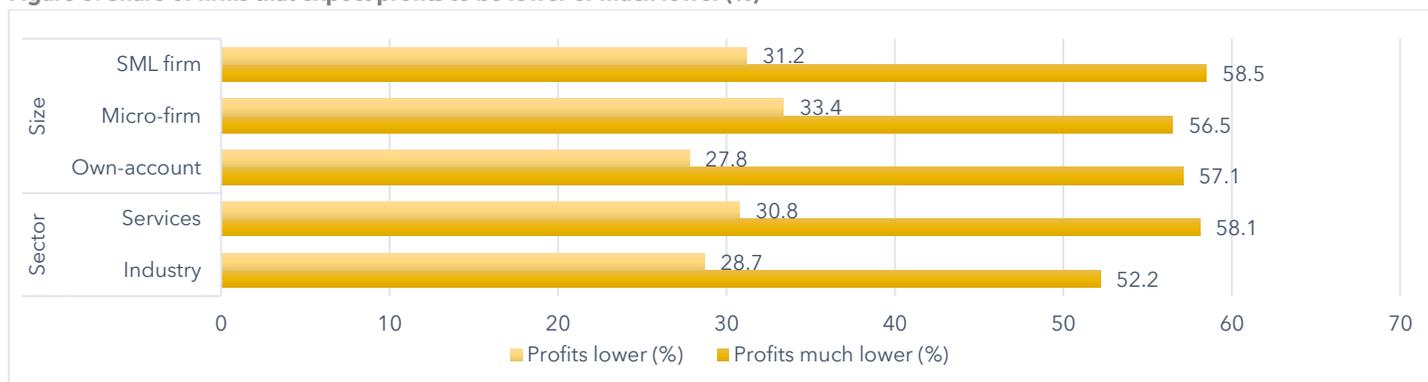
month amounted to 18 percent of last year’s revenues (same month) for firms that ceased operations in the 14 days preceding the survey and 36 percent of last year’s revenues for firms that were fully operational in the 14 days prior to the survey. This suggests that firms’ revenue streams are not only affected by business closures but also by a significant slowdown in demand for those firms that remain operational.

Figure 2: Share of firms with zero revenues in last completed month, by days operational (%)



Not surprisingly, profit expectations for this fiscal year are grim. Approximately 57 percent of firms expect profits to be “much lower” than in the last fiscal year and 31 percent expect profits to be “lower”. Though profit expectations are low across the board, firms in the services sector expect highest reductions (Figure 3). In contrast, only six percent of firms expect profits to be the same as last year or higher, with most of these firms operating in the construction sector.

Figure 3: Share of firms that expect profits to be lower or much lower (%)



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

COVID IMPACT AND RESPONSE



When directly asking about impacts of the COVID-19 pandemic, almost all firms (94 percent) indicate being affected by the COVID-19 crisis. Firms are mainly affected by a collapse in demand of goods and services (62 percent), restricted movement of workers (27 percent), the forced closure of businesses (26 percent), and the closure of marketplaces and shops (14 percent) (Table 50). There are a number of sizable differences across sectors. Lower demand of goods and services as well as closure of businesses and marketplaces especially affect firms in the service sector. Restricted movement of workers and lower supply or higher prices of raw materials and intermediate goods mostly affect firms in industry (Table 5). Substantial differences emerge across firm size as well. Restricted movement of workers and lower supply of raw materials and intermediate goods are more important obstacles for SML firms, while forced closure of businesses and closure of marketplaces are more important among own-account firms. This is likely a result of own-account firms not having payroll employees and being more likely to operate from congested market areas, where social distancing requirements are difficult to enforce. The fall in demand remains, however, the single most important COVID-19-related obstacle irrespective of firm size and sector.

Table 5: Ways in which firms are affected by COVID-19

	Firm sector			Firm size		
	Total	Industry	Services	Own-account	Micro-firm	SML firm
Low demand for products/services	61.3	53.9	63.6	59.4	63.9	58.8
Lower supply of raw materials and intermediate goods	7.9	13.5	6.0	5.6	7.6	17.5
Restricted movement of workers	26.4	36.9	23.6	22.0	27.4	38.8
Forced closure of business	25.7	14.2	28.8	25.5	27.8	18.8
Closure of marketplace/shops	14.2	9.2	15.6	18.2	10.5	12.5
Higher price of raw materials and intermediate goods	8.9	15.6	7.0	8.4	9.0	10.0

Note: Other ways in which firms are affected by COVID-19 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).

FINANCIAL IMPACT



As a result of the COVID-19 crisis, firms face significant financial stress. The most significant financial problems firms face are paying rent (41 percent), paying invoices (28 percent), paying other expenses (27 percent), and paying staff wages and social security contributions (19 percent). There are substantial differences across size, with staff wages and social security contributions as the main financial problem for larger firms and rent as the main financial problem for micro-firms (Table 6).

To overcome financial fallouts resulting from the COVID-19 pandemic, firms indicated waiving of tax payments (39 percent), covering operational costs (such as costs for sheds and working spaces) (20 percent), and the freeze of loan repayments, extension of loan terms or partial debt relief (14 percent) as the most relevant policy measures for their firm (Table 7). Though wage subsidies were mentioned by less than five percent of firms, they were more frequently identified by larger firms (14 percent), those firms which also indicated staff wages as a significant financial problem. So far, very few firms (12 in the sample) have received any government support.

Table 6: Financial problems currently faced by firms

	Firm sector			Firm size		
	Total	Industry	Services	Own-account	Micro-firm	SML firm
Staff wages and social security contributions	19.3	30.6	17.3	2.2	29.8	43.1
Rent	41.0	31.6	42.6	39.4	44.3	35.6
Repayment of loans	10.0	15.4	9.0	8.8	9.2	16.3
Payments of invoices	27.5	23.8	28.1	30.8	23.8	26.2
Payment of other expenses	26.9	22.1	27.7	39.5	19.0	12.4

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

Table 7: Most relevant policy measures to help firms through the crisis, according to firms

	Firm sector			Firm size		
	Total	Industry	Services	Own-account	Micro-firm	SML firm
Covering, reducing, or freezing of operational costs such as costs for sheds and working spaces	20.1	16.3	20.8	19.4	22.6	13.8
Reduction or deferral of payroll taxes or providing wage subsidies	4.8	5.0	4.8	1.6	5.4	13.8
Waiving taxes payment (corporate income tax, VAT, private pension contribution, excise tax)	39.3	32.7	40.4	43.3	37.8	30.7

Freeze of loan repayment, extension of loan terms, or partial debt relief	14.1	19.1	13.4	12.2	14.0	20.6
Providing access to capital through financial grants	11.2	13.5	10.9	13.6	9.9	7.5
Providing access to capital through access to zero-interest loans	10.1	9.2	10.2	6.2	13.3	13.1

Note: 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 employees).

PROTECTING EMPLOYEES' HEALTH AND SAFETY



COVID-19 does not only seriously impact firms' financial prospects, it also changes how firms operate. Firms in Addis Ababa have taken measures to increase the occupational health and safety of their employees. Close to 70 percent of firms provided hand sanitizers (soap/alcohol) at the workplace, 42 percent provided personal protective equipment (such as masks or gloves) to their employees, and 35 percent established strict social distancing requirements as part of the work routine.

UPCOMING ACTIVITIES



This summary brief is the first in a series of briefs reporting on the findings of the high-frequency phone survey of firms. This brief reports on findings from round 1 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 April 15 and May 6, 2020. Data collection continues in the coming months by following the same firms every three weeks. Round 2 of data collection started on May 6, 2020 and includes the follow-up of the existing sample of firms in Addis Ababa as well as a new 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 1

- ❖ Data collection period: April 15 to May 5, 2020
- ❖ Response rate: 46 percent
- ❖ Sample size: 645 firms in Addis Ababa
- ❖ Average duration of interview: 21 minutes