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Female-owned Firms during the COVID-19 Crisis

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This brief uses firm-level data, collected between May 2020 and May 2021 in 41 countries, to provide descriptive evidence on the differential effect of the COVID-19 crisis on female- and male-owned firms. Data suggest that while female-owned and male-owned businesses closed permanently at the same rates, female-owned firms were more likely to have temporarily closed during the crisis and to have closed for a longer duration. When able to stay in business, female-owned firms were more likely to experience a decrease in demand for their products or services and supply of intermediate inputs than male-owned firms. They also reduced the size of their workforce more than their male counterparts and were more likely to reduce hours worked. Finally, female-owned firms suffered deeper financial distress than male-owned firms. Nevertheless, female and male-owned firms show similar optimism of returning to normal levels of sales or workforce in the near future.

Evidence on the Effects of the COVID-19 Crisis on Female-owned Firms is Still Limited

During the COVID-19 pandemic, firms in nearly all sectors have experienced drastic demand and supply shocks, negative effects on sales and employment (Apedo-Amah et al. 2020; Bloom et al. 2020; Karalashvili and Viganola 2021), and financial fragility (Amin and Viganola 2021). The evidence on the effect of the COVID-19 crisis on female-led firms, however, is still limited, as is the literature on the effects of economic crises more generally on female-led firms. During the COVID-19 pandemic, firms run by female top managers in 24 countries worldwide have been more likely to remain closed on a temporary basis – and to stay closed longer, than businesses run by men (Liu, Wei, and Xu 2021). During the 2009 financial crisis, female-owned firms were more likely to close permanently. They also experienced a higher reduction in sales, in the longer term, compared to male-led firms (Ahmed, Muzi, and Ueda 2020), and a more pronounced tightening in credit supply (Cesaroni, Lotti, and Mistrulli 2013). During the 2009 financial crisis, female business leaders were also more pessimistic about the future than male business leaders (Cesaroni, Sentuti, and Buratti 2015).

Given that firms led by women tend to be smaller and less productive than firms led by men (Bruhn 2009; Bardasi, Sabarwal, and Terrell 2011; Islam, Palacios Lopez, and Amin 2019), to suffer more limited access to finance (Muravyev, Talavera, and Schäfer 2009; Presbitero, Rabellotti, and Piras 2014) in general—and that female-led firms tend to be more concentrated in the retail sector (Amin and Islam 2014), which, together with other services sectors, is considered to have been hit particularly hard by the COVID-19 crisis—understanding the precise impact of the crisis on women-led firms is particularly relevant to design policies to support vulnerable businesses.

This brief compares the experiences of firms with majority female ownership (female-owned firms) with firms with majority male ownership (male-owned firms) during the COVID-19 crisis. It uses firm-level data collected before the crisis through the World Bank Enterprise Surveys (WBES) and the COVID-19 Follow-up Surveys that contacted the WBES firms again since the onset of the pandemic. The data are described in box 1. Firms are defined as majority female-owned if, at the time of the precrisis WBES, at least 51 percent of the firm was owned by women. All differences discussed in the brief were tested for statistical significance after accounting for firm's size, age, sector, and within country location, along with the timing of the surveys. The differences were all found to be significant at the 5 percent or 1 percent level.

Female-Owned Firms Experienced More Temporary Closure and Widespread Shocks to Demand and Supply

Temporary closures were more common among female-owned than male-owned firms. The data enable

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Box 1 **Firm-level Data Collected during the COVID-19 Pandemic**

The World Bank Enterprise Survey (WBES) COVID-19 Follow-up Surveys were conducted with firms that had recently completed the WBES before the onset of the pandemic. In the Follow-up Surveys, a total of 36,367 firms across 41 countries were interviewed between May 2020 and May 2021, with 26 countries covered in two rounds of surveys, approximately three months apart. Table B1.1 summarizes the coverage. Cross-country comparisons should be treated with due caution, given that the surveys were conducted at different points of time in different countries.

The WBES are firm-level surveys of a representative sample of firms in the non-agricultural, non-extractive, and formal private sector with five or more employees. Survey weights are applied to obtain population estimates. When data are aggregated across countries, only the latest rounds of surveys are used, and survey weights are rescaled so that each country is weighted equally. All the firm-level WBES and follow-up data are publicly available on the Enterprise Surveys (ES) data portal: https://login.enterprisesurveys.org.

Table B1.1. WBES Follow-Up Survey Data Used in this Brief

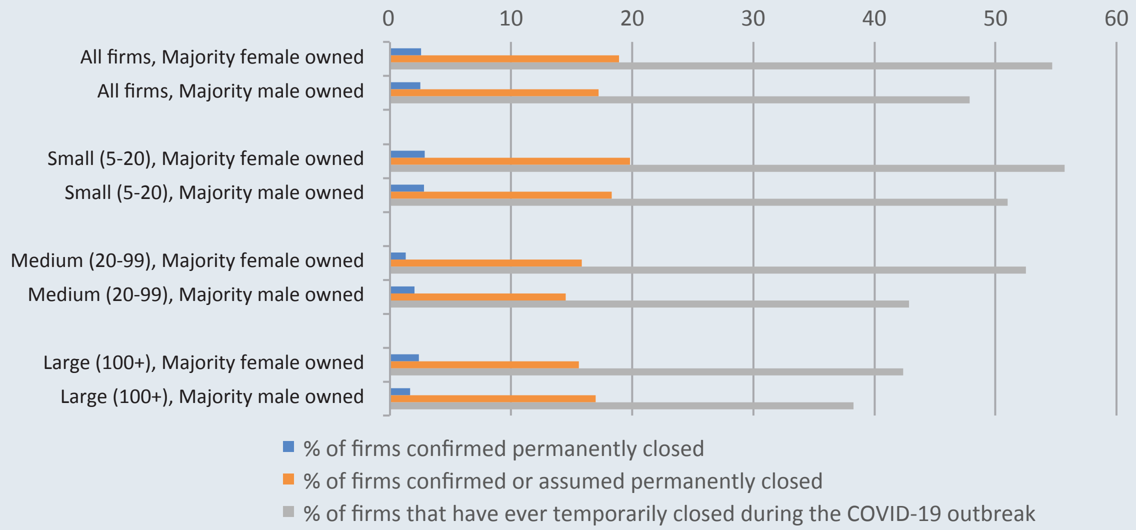
	Countries	Surveys	Obs.	Fieldwork range
Low-income	5	5	1,205	06-2020/01-2021
Lower-middle-income	8	15	8,202	05-2020/02-2021
Upper-middle-income	13	17	9,534	06-2020/05-2021
High-income	15	30	17,426	05-2020/02-2021
Total	41	67	36,367	

Source: World Bank Enterprise Survey (WBES) Follow-up COVID-19 Surveys.
Note: Obs. = observations.

the computation of different measures of firm exit. The first measure refers to firms that have closed temporarily since March 2020 due to the pandemic but did not go out of business. The second and third measures capture firm permanent exit from the market. The second measure includes the firms confirmed to have closed permanently. The third measure, less conservative, also includes firms that could not be recontacted and, therefore, were assumed permanently closed (for an in-depth analysis on firm exit during the pandemic, see Muzi et al. 2021). Figure 1 illustrates the three measures of exit for female- and male-owned firms. Looking at rates of permanent closures, the data show that female-owned firms are not characterized by higher rates of confirmed (2.6 percent and 2.5 percent) or assumed exit rates (18.9 percent and 17.2 percent) compared to male-owned firms. However,

Figure 1 **Firm Exit Rates during the COVID-19 Crisis by Female or Male Ownership and Firm Size**

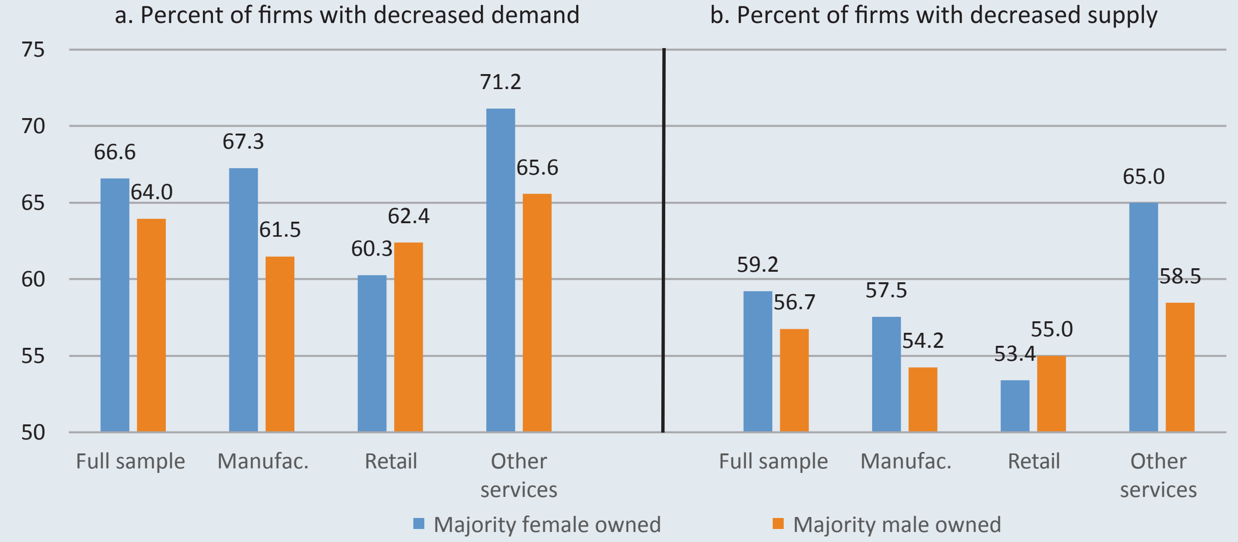
Female-owned firms are more likely to have temporarily closed during the COVID-19 crisis, but both female- and male-owned firms closed permanently at the same rates.



Source: World Bank Enterprise Survey (WBES) Follow-up Surveys on COVID-19.
Note: The figure covers the latest round of survey for the 41 countries in the sample. Small, medium, and large refer to the number of employees in the firm.

Figure 2 Demand and Supply Shocks to Female- and Male-owned Firms during the COVID-19 Pandemic

Female-owned manufacturing and other services firms reported more widespread incidence of decrease in demand and supply.



Source: World Bank Enterprise Survey (WBES) Follow-up Surveys on COVID-19.
Note: The figure covers the latest round of survey for the 41 countries in the sample.

differences emerge when looking at the rates of firms that have temporarily closed their business at any time during the COVID-19 outbreak: overall, among female-owned firms the rate of firms that closed for more than a week is almost 7 percentage points higher than that of male-owned firms (54.7 percent vs. 47.8 percent, respectively). Moreover, female-owned firms are characterized by a longer duration of closure: on average, they had to put their businesses on hold for an additional week compared to male-owned firms (11 weeks and 10.1 weeks, respectively). These patterns hold for small, medium, and large firms.

Focusing on firms that survived, it is relevant to look at the measures they put in place during the COVID-19 outbreak to offset the difficulties of the crisis. Interestingly, female- and male-owned firms appear similar in the ways they adjusted their overall operations to meet the crisis: namely, to start or increase online activity; to adjust or convert their production or the services they provide; or to introduce new products or services in response to COVID-19. However, female-owned firms appear less well positioned to move their employees to remote work (28.3 percent vs. 33.1 percent of male-owned firms).

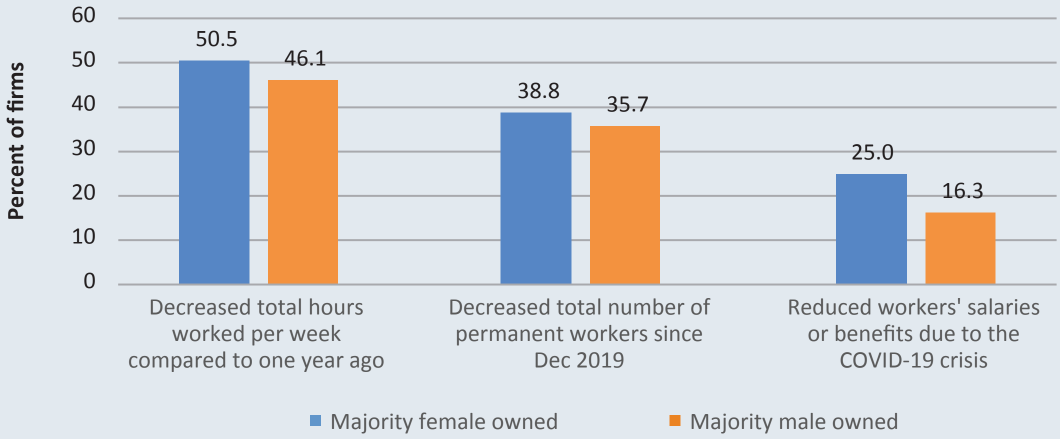
Female-owned firms experienced a greater incidence of a decrease in demand (66.6 percent vs. 64.0 percent) and in supply of inputs (59.2 percent vs. 56.7 percent). The decrease in demand (supply) is measured as the percentage of firms that experienced a decline in the monthly demand for the firm's products or services (supply for the firm's inputs) compared to the same month of the previous year. Focusing on the decrease in demand, relevant differences emerge across sectors (figure 2). In the manufacturing sector (other services), 67.3 percent (71.2 percent) of firms with majority female ownership experienced a demand decrease, compared to 61.5 percent (65.6 percent) of male-owned firms. The pattern is the opposite for retail, where female-owned firms were less likely to experience a negative demand shock compared to male-owned firms (60.3 percent vs. 62.4 percent).

Employees at Female-owned Firms Fared Worse Relative to those in Male-owned Firms

The WBES COVID-19 Follow-up Surveys show that, across a range of metrics, workers in establishments owned by women experienced more adverse outcomes. This is not surprising given the aforementioned higher likelihood that female-owned firms temporarily closed during the crisis, and that they were disproportionately adversely affected by both demand and supply shocks. As figure 3 illustrates, 38.8 percent of female-owned firms decreased the number of permanent full-time workers they employed since the onset of the COVID-19 crisis, compared to 35.7 percent of firms that are owned by men. Female-owned firms also cut the size of their workforce significantly more in response to the crisis. The average change in the number of permanent, full-time employees was -8.8 percent in female-owned firms, compared to -6.4 percent in firms owned by men. The data also suggest that workers in female-owned firms are not more likely to be leaving the

Figure 3 Employment Changes in Female- and Male-owned Firms since the Onset of the COVID-19 Crisis

Across several metrics, workers in female-owned firms fared worse than their counterparts in firms that are owned by men.



Source: World Bank Enterprise Survey (WBES) Follow-up Surveys on COVID-19.
Note: The figure covers the latest survey round for 40 countries in the sample.

firm of their own volition: relative to male-owned firms, fewer workers in female-owned firms have taken leave or have quit since the crisis began.

Further evidence that employees have fared worse in female-owned firms is provided by looking at the incidence of decreases in the firms' operating hours since the onset of the crisis. As figure 3 illustrates, 50.5 percent of female-owned firms have reduced their weekly operating hours: 4.4 percentage points higher than the proportion of male-owned firms that reported the same. This is likely to have an impact on the take-home pay of those workers who receive an hourly wage. As such, it is unsurprising to see that female-owned firms are significantly more likely to have reduced the salaries and benefits of their workers since the crisis began: 25 percent of firms owned by women have had to cut salaries and benefits due to the crisis, while only 16.3 percent of male-owned firms report having had to do so. Overall, 19.6 percent of workers in female-owned firms have seen their salaries and benefits reduced, compared to 13.1 percent of workers in male-owned firms.

Taken together, the data paint a bleak picture of the crisis' impact on workers in female-owned firms: permanent workers are more likely to have lost their jobs; these firms are more likely to have reduced their operating hours; and their employees are more likely to have experienced a reduction in their salaries and benefits.

While the focus of this brief is the gendered impacts of the crisis on female entrepreneurs, the fact that workers have fared worse in firms owned by women may have knock-on effects on female workers. Precrisis data show that female-owned firms employ more female workers than their male-owned counterparts, which is likely linked to their concentration in certain sectors. Statistics from the baseline WBES for the same group of countries show that, in firms that are female-owned, 56 percent of permanent, full-time workers are female; this compares to 32 percent of the workforce in male-owned firms. Given the higher representation of female workers in female-owned firms, it is possible that female workers make up a disproportionate share of those workers who have lost their jobs or experienced a reduction in salaries and benefits; however, this hypothesis would require further research to verify.

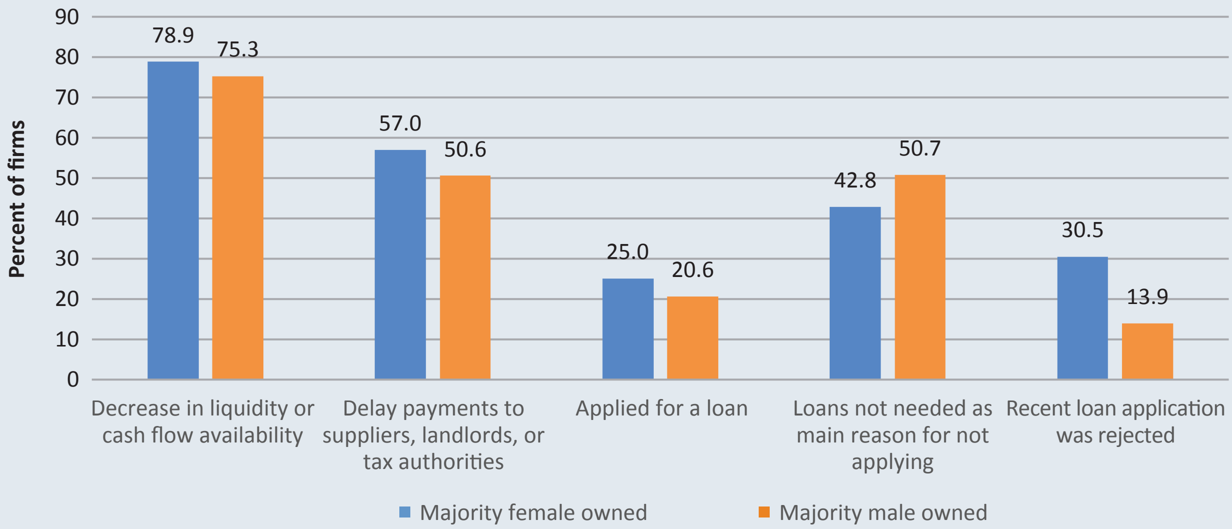
Female-owned Firms Are More Likely to Struggle Financially, but as Likely as Male-owned Firms to Receive Government Support

Female-owned firms display multiple signs of deeper financial distress than their male-owned counterparts. On average, 78.9 percent of female-owned firms experienced a decrease in liquidity or cashflow availability since the onset of the pandemic, which is 3.5 percentage points higher than for male-owned firms. Furthermore, a higher share of female-owned firms was forced to delay payments to their suppliers, landlords, or tax authorities (57.0 percent vs. 50.6 percent for male-owned firms). Importantly, these gender gaps appear to be most pronounced in lower-income countries, small or medium enterprises (SMEs), and sectors other than retail.

The gender gaps in experiencing financial distress are also visible through choices made by the entrepreneurs. Female-owned firms were more likely to have applied for

Figure 4 Firms' Access to Finance during the COVID-19 Pandemic

Firms that were majority female-owned before the pandemic have experienced more financial distress than male-owned firms

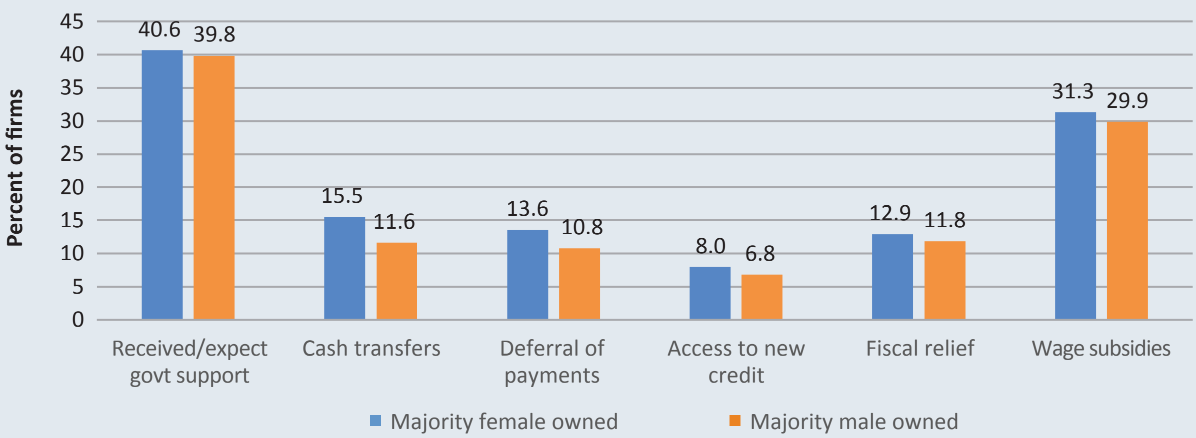


Source: World Bank Enterprise Survey (WBES) Follow-up Surveys on COVID-19.
Note: The figure covers 40 countries for the first three indicators, and 30 countries (more recent surveys) for the last three. All indicators in the figure refer to the period since the onset of the pandemic.

a loan since the pandemic began than male-owned firms (25 percent vs. 20.6 percent). Among the firms that did not apply, a considerably lower share of firms noted "no need" as the main reason, suggesting that among the female-owned firms that did not apply for the loan, many more do need the loan than male-owned firms. The most staggering difference is in the rates at which loan applications were rejected: female-owned firms were more than twice as likely to have their application rejected than male-owned firms (30.5 percent vs. 13.9 percent). This considerable difference is only slightly reduced when firms' sector and other standard features are taken into account, and is present across all income-groups, all firm sizes except large (100+ employees), and all sectors. For example, among high-income countries, the rates at which loans were rejected are 29.2 percent vs. 13.7 percent for female- and male-owned firms, respectively, and the same indicator for the other services sector is nearly three times higher for female-owned firms (34.4 percent vs. 12.4 percent).

Figure 5 Government Support to Female- and Male-owned Firms during the COVID-19 Pandemic

Female- and male-owned firms were equally likely to receive overall government support, with some differences within the types of this support



Source: World Bank Enterprise Survey (WBES) Follow-up Surveys on COVID-19.
Note: The figure covers the latest round of survey for 40 countries.

Around 40 percent of firms, both female- and male-owned, received or expect to receive some form of government support to cope with the pandemic. However, when looking at the type of support received, female-owned firms are slightly more likely to receive or expect cash transfers or deferral of payments. The overall government support is only slightly tilted toward female-owned firms (by 3.6 percentage points) when firms' size, age, sector, location, and the timing of the surveys are taken into account. Interestingly, among retail firms, or among medium-sized or larger firms (20+ employees), a lower share of female-owned firms than male-owned firms received or expect government support, with the opposite pattern among smaller or nonretail firms. Among the firms that did receive or expect government support, female-owned firms had access to slightly more types of support. In particular, among the five types reported in figure 5, female-owned firms received or expect on average 2.0 types compared with 1.8 for male-owned firms.

Female Entrepreneurs and their Male Counterparts Share an Optimistic Outlook for Recovery

Research into the COVID-19 pandemic is increasingly pointing toward disproportionately negative effects of the resulting economic crisis on women compared to men, along multiple dimensions (de Paz, Gaddis, and Muller 2021). This brief adds evidence by pointing out similar patterns for female entrepreneurs. Firms with majority female ownership faced disproportional hardships, from more widespread and longer temporary closures to difficult decisions regarding reductions in workforce. Although it is hard to find encouraging signs, female-owned firms have managed to power through and performed similarly to the male-owned firms in terms of overall survival of their businesses, and general adjustments to their business operations to meet the crisis. Moreover, female entrepreneurs share a similar outlook with their male counterparts. While a higher share of female- than male-owned firms anticipate falling in arrears on outstanding liabilities in the six months following the interview (35.7 percent vs. 29.2 percent), similar shares report optimism in returning to normal levels of sales or workforce in the near future (96 percent). Assessments of how long on average it will take to return to those normal levels are also similar across firms owned by women and men (around 7.5 months). While female entrepreneurs are holding out similar hopes for the future as their male counterparts, it is important to quantify and recognize any increases in gender-based disparities since the onset of the COVID-19 crisis. Pursuing corrective policy measures to address these disparities may be even more important during the time of recovery from the pandemic.

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