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Performance of Firms Using COVID-19-Related Support Policies: Ex-post Evaluation*

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Abstract

This study presents evidence on the performance of firms up to FY2023 that used three major support policies during the COVID-19 crisis: financial assistance, the employment assistance subsidy, and the subsidy to sustain business. The results show, first, that although productivity among firms that received support improved compared to levels immediately following the crisis, it generally remained low even after the pandemic subsided, with the quantitative magnitude differing across policy measures. Second, profit margins and mean wages of firms that received financial assistance or the subsidy to sustain business returned to their pre-COVID-19 levels, while wages of firms that used the employment assistance subsidy remained low as of FY2023. Third, by FY2023, employment levels declined among firms that used the support measures, compared to those that did not. Fourth, the probability of survival in FY2023 was lower for firms that used the support measures, suggesting that the effectiveness of these policies was limited. However, the support measures did not appear to hinder the market's selection mechanism, whereby less productive firms exit from the market.

Keywords：COVID-19; firm support policies; productivity; profitability; wage
JEL Classification: D24, H25, L25

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Performance of Firms Using COVID-19-Related Support Policies: Ex-Post Evaluation

1. Introduction

Five years have passed since the onset of the COVID-19 crisis. In May 2023, the WHO declared the end of the "Public Health Emergency of International Concern," and socioeconomic activities have largely returned to normal. During the crisis, governments implemented various support measures targeting firms that experienced a sharp deterioration in performance. These policies can be justified as emergency responses to address temporary business difficulties caused by an unexpected shock. However, they may also have prolonged the survival of so-called zombie firms, thereby hindering the cleansing effect and potentially having a negative impact on medium- to long-term economic growth (e.g., Caballero and Hammour, 1994; Caballero et al., 2008; Kwon et al., 2015; Imai, 2016; McGowan et al., 2018). It is essential to learn lessons from the experience of the COVID-19 pandemic to determine how policy responses should be designed for potential future shocks, such as new infectious diseases or large-scale natural disasters.

As shown in Section 2, while many studies have examined firm support measures during the COVID-19 pandemic, *ex post* evaluations of subsequent firm performance remain limited. Among the various support measures adopted in Japan during the COVID-19 crisis, many firms utilized three key policies: financial assistance, the employment assistance subsidy, and the subsidy to sustain business (Morikawa, 2023). This study examines the subsequent business performance of these firms through FY2023. A key contribution of the analysis is its medium-term perspective, covering the period after the pandemic subsided.

The main results are summarized as follows. First, although productivity among firms that received support improved relative to levels immediately following the crisis, it generally remained low even after the pandemic had subsided, with the quantitative magnitude differing across policy measures. Second, profitability and average wages of firms that received financial assistance and the subsidy to sustain business returned to pre-COVID-19 levels, but the average wages of firms that used the employment assistance subsidy remained low as of FY2023. Third, by FY2023, employment levels had declined among firms that used the support measures compared with those that did not. Fourth, the probability of survival in FY2023 was lower for firms that received support, suggesting that the effectiveness of these policies was limited. However, we do not find evidence that the support measures hindered the natural selection mechanism by which less productive firms exit the market.

The remainder of this paper is organized as follows. Section 2 reviews recent studies on the relationship between firm support measures during the COVID-19 pandemic and firm

performance. Section 3 describes the data and methodology used in this study. Section 4 presents the results, and Section 5 summarizes the findings and discusses policy implications.

2. Studies on firm support policies during the pandemic

Various firm support measures were implemented in major countries during the COVID-19 crisis. Many studies have examined whether these policies led to the creation of zombie firms or suppressed resource reallocation (e.g., Bighelli *et al*., 2023; Konings *et al*., 2023; Cooper *et al*., 2024; Guerini *et al*., 2024; Lalinsky *et al*., 2024; Meriküll and Paulus, 2024; Telegdy, 2024; Amundsen *et al*., 2025). [1] Overall, there is little evidence that firm support measures promoted zombification or hindered resource reallocation. However, these studies are based on data covering periods when the impact of COVID-19 was still ongoing.[2]

In Japan, firm support policies such as financial assistance, the employment assistance subsidy, and the subsidy to sustain business were implemented. The financial assistance program offered low- or zero-interest loans through government financial institutions to firms experiencing a significant decline in sales due to the pandemic. The employment assistance subsidy supported firms' efforts to maintain employment and prevent a rise in unemployment. The subsidy to sustain business provided up to two million yen to small and medium-sized enterprises whose sales had fallen by more than 50%.[3] Several studies have analyzed which firms used the support measures based on original firm-level surveys. Morikawa (2021, 2023) found that firms utilizing the support measures already had low productivity even before the pandemic. Hoshi *et al*. (2023) showed that firms with lower credit scores were more likely to use these measures. These findings suggest that firm support policies during the pandemic may have hindered the cleansing effect.

Studies examining firm performance after receiving support in Japan include Honda *et al*. (2023) and Fukuda and Yamamoto (2025). Honda *et al*. (2023) analyzed data up to 2021 and found that support measures such as low-interest loans and subsidies increased cash holdings among recipient firms. However, these firms experienced declines in credit scores and profit margins and showed a higher probability of becoming zombie or unprofitable firms. Fukuda and

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[1] Exceptionally, Meriküll and Paulus (2024), focusing on Estonia's job retention policy, find that it suppressed the reallocation of employment to productive firms and had a negative impact on macroeconomic productivity. However, their analysis is based on data up to 2020.

[2] Canzian et al. (2025) analyze the effectiveness of COVID-19-related firm support measures in Spain and Italy using data up to 2022, concluding that these measures mitigated revenue and investment declines among small businesses.

[3] Ando *et al*. (2020) document economic policies at early stage of the COVID-19 pandemic in Japan.

Yamamoto (2025) analyzed the sales of firms that applied for the employment assistance subsidy through January 2022 and found that their sales were significantly lower than those of non-applicant firms. However, the analysis periods in these studies extend only through the time when the impact of COVID-19 persisted and many support policies remained in effect. The interest-free, unsecured loan program ended in September 2022, and the COVID-19 special provisions for the employment assistance subsidy program continued until the end of FY2022. Consequently, the medium-term performance of firms after the end of the pandemic lies outside the scope of these studies.

The contribution of this study lies in examining the medium-term performance of firms that utilized various Japanese support measures, using data up to FY2023 when the COVID-19 pandemic had subsided.

3. Data and methodology

This study uses a dataset that links microdata from the Survey of Corporate Management and Economic Policy (SCMEP) with panel data (FY2010–FY2023) from the Basic Survey of Japanese Business Structure and Activities (BSJBSA).

The BSJBSA, conducted by the Ministry of Economy, Trade and Industry, is a representative official firm survey in Japan. It compiles annual statistics on all Japanese firms with 50 or more regular employees and capital of 30 million yen or more engaged in mining, manufacturing, electricity and gas, wholesale, retail, and several service industries. Approximately 30,000 firms are surveyed each year. The survey covers a wide range of items, including basic financial information such as capital, number of employees, sales, operating expenses, total wages, and fixed assets. Using data from the BSJBSA, this study calculates labor productivity, total factor productivity (TFP), the rate of return on total assets (ROA), and mean wages at the firm-level.

The SCMEP is a survey designed by the author and conducted by the Research Institute of Economy, Trade and Industry (RIETI) between October and December 2021, administered by Tokyo Shoko Research, Inc. The survey was sent to 15,000 firms selected from the BSJBSA population list, and 3,191 firms responded (a 21.3% response rate). The key question used in this study asked whether firms had used any support policies related to the COVID-19 pandemic in FY2020 or FY2021.

The specific wording of the question was: “Please select which of the following support policies associated with COVID-19 your firm has used.” The eight policies surveyed were: (1) financial assistance from governmental financial institutions, (2) the employment assistance subsidy, (3) the subsidy to sustain business, (4) the subsidy for supporting business rent, (5) the

business restructuring subsidy, (6) the industry and employment stabilization subsidy, (7) exemption from local taxes and social insurance premium payments, and (8) reduction of property tax.[4]

Among these policies, the three policies with the highest utilization rates were financial assistance, the employment assistance subsidy, and the subsidy to sustain business (Morikawa, 2021, 2023). This paper focuses on these three policy measures. **Table 1** reports the percentage of firms using each measure among SCMEP respondents: 24.0% used financial assistance, 49.3% used the employment assistance subsidy, and 18.2% used the subsidy to sustain business. Compared with FY2020—immediately following the onset of the COVID-19 crisis—the number of firms using these programs declined significantly in FY2021.

We link the SCMEP data with BSJBSA's FY2010–FY2023 panel data for the analysis. The estimation uses productivity, return on assets (ROA), and mean wages as dependent variables, with dummies for firms using support policies (*Policy_user*) and their interaction terms with year as the main explanatory variables. The specific equation estimated is (1), controlling for firm size (Size: logarithm of capital), three-digit industry, and year. The focus is on coefficient α_2, particularly its trend from FY2020 onward. α_1 indicates the average difference in the dependent variables between firms that used support measures in FY2020–FY2021 and those that did not.

$$Y_{it} = \alpha_0 + \alpha_1 Policy\_user_i + \alpha_2 Policy\_user_i * Year_t + \alpha_3 Size_{it} + \alpha_4 Industry_j + \alpha_5 Year_t + u_{it} \quad (1)$$

As shown by Morikawa (2021, 2023), firms with lower productivity and mean wages prior to the pandemic were more likely to use support measures. Hoshi *et al*. (2023) found that firms with lower credit scores were more likely to utilize these policies. The coefficient α_1 controls for such selection effects, while α_2 captures the additional performance difference between firms that used the measures and those that did not in each year.

The COVID-19 relief measures were available only to firms whose performance had deteriorated rapidly due to an unexpected, exogenous shock; thus, eligible firms were not randomly selected. Moreover, because most firms that met the eligibility criteria actually used the support programs, finding comparable non-recipient firms is difficult. Therefore, this analysis does not attempt to estimate a treatment effect of the policies. Rather, it evaluates *ex post* differences in outcomes to provide insight into the appropriateness of policy design—specifically, the scope of eligible firms.

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[4] The SCMEP was conducted from October to December 2021, so it does not cover policy use toward the end of FY2021. However, use of support measures was high in FY2020, and the number of firms newly used them in FY2021 is small.

Among the dependent variables (Y_{it}), labor productivity is calculated by dividing real value added (from the BSJBSA) by labor input, defined as the total number of full-time equivalent employees multiplied by hours worked. TFP is calculated nonparametrically using the index number method for each three-digit industry in the BSJBSA, with real value added as the output and tangible fixed assets and labor input (total hours) as inputs.[5] Note that TFP is measured using the entire BSJBSA sample, not only the firms that responded to the SCMEP. Value added and tangible fixed assets are deflated using deflators from the national accounts. Mean wages are calculated by dividing total wages (including bonuses) and welfare benefits by the number of full-time equivalent employees. Both TFP and mean wages are expressed in logarithmic form. The return on assets (ROA) is calculated by dividing ordinary income by total assets. Summary statistics for these variables are presented in **Table 2**.

In addition, we estimate the change in the number of employees (the difference in the log number of employees) through FY2023, as well as the exit probability from FY2021 to FY2023. The OLS estimation equation for changes in employment is shown in equation (2). The dependent variable is the log of the number of employees in FY2023 ($lnEMP_{i2023}$), while explanatory variables include the log of the number of employees in FY2019 ($lnEMP_{i2019}$), a policy-user dummy ($Policy\_user_i$), firm size (log of capital), and one-digit industry dummies.

$$lnEMP_{i2023} = \alpha_0 + \alpha_1 lnEMP_{i2019} + \alpha_2 Policy\_user_i + \alpha_3 Size_{i2019} + \alpha_4 Industry_j + u_i \qquad (2)$$

The probit model used to explain firm exit is shown in equation (3). By including TFP as an explanatory variable, we examine whether a natural selection mechanism—where less productive firms exit—is functioning, and whether the exit probability of policy-using firms differs once productivity is controlled for.

$$Pr(Exit_{2023}=1) = \alpha_0 + \alpha_1 Policy\_user_i + \alpha_2 TFP_i + \alpha_3 Size_{it} + \alpha_4 Industry_j + u_i \qquad (3)$$

However, because the BSJBSA covers only firms above a certain size threshold, it cannot precisely capture "exits." In this study, firms that existed in FY2021 but were not observed in FY2023 are treated as "exited" firms. It should be noted, however, that this definition may also include firms that downsized below the BSJBSA inclusion threshold, such as by reducing their number of regular employees to fewer than 50.

[5] Since the BSJBSA does not have firm-specific working hour data, when calculating labor input, we use industry-level working hour data from the Monthly Labour Survey (Ministry of Health, Labour and Welfare) and multiply it by each firm's number of full-time equivalent employees.

4. Results

Figure 1 plots the trend in labor productivity for firms using COVID-19-related support measures (coefficient α_2 from equation (1)). Detailed estimation results are presented in Appendix **Table A1**. For firms using financial assistance, labor productivity tended to be lower than that of non-using firms in FY2017 and FY2018. However, statistically significant differences were observed only between FY2019 and FY2021, with the gap disappearing in FY2022. [6] This result indicates that labor productivity at firms that temporarily faced cash flow difficulties due to COVID-19 and used financial assistance largely returned to pre-pandemic levels. Thus, it cannot be concluded that financial support measures prolonged the survival of low-productivity firms or depressed overall economic productivity. Nonetheless, this comparison is limited to firms that remained in operation through FY2023 and may reflect the exit of firms with particularly low labor productivity.

It should also be noted that the mean labor productivity over the sample period for firms using support measures (coefficient α_1 in equation (1)) is negative and highly significant, confirming earlier findings that firms with lower productivity prior to the COVID-19 pandemic were more likely to use such measures (Morikawa, 2021, 2023).

In contrast, firms using the employment assistance subsidy and those using the subsidy to sustain business exhibited a significant negative gap in labor productivity relative to non-users long before the pandemic, indicating a relative decline in productivity prior to COVID-19. Furthermore, in FY2022 and FY2023, these firms continued to record significantly lower productivity levels than non-using firms. This suggests that these policies may have helped survival of firms whose performance had already been deteriorating before the pandemic.

Why might these policies differ from financial assistance? While the explanation remains speculative, it may be that financial assistance—despite being a generous measure—involved some degree of screening by financial institutions. Firms with no prospect of future repayment might therefore have been excluded from receiving support.

Figure 2 shows the results with TFP as the dependent variable (see Appendix **Table A2** for

[6] Looking at quarterly GDP statistics, the significant economic downturn due to COVID-19 occurred in the April-June 2020 quarter, while the January-March 2020 quarter saw positive quarter-on-quarter growth. Therefore, the impact of COVID-19 on firm performance in FY2019 is likely to be limited. However, the October-December 2019 quarter saw a significant decline due to the rebound effect from pre-consumption tax hike demand, meaning firm performance in FY2019 may include the impact of the consumption tax rate increase.

detailed estimation results). In FY2020 and FY2021, when the negative shock of COVID-19 occurred, it is unsurprising that the TFP of policy-using firms declined sharply. Although it rebounded somewhat thereafter, TFP among policy-using firms remained depressed even by FY2023—a pattern common to all three policies. The mean TFP over the sample period for firms using support measures (coefficient α_1) is negative and highly significant, confirming that firms with lower pre-pandemic TFP were more likely to use support measures, consistent with the labor productivity results.

Figure 3 presents the estimation results with profitability as the dependent variable (see Appendix **Table A3** for detailed estimation results). In this case, the ROA of firms using financial assistance declined slightly in FY2019 relative to non-users and then fell sharply in FY2020. However, by FY2022 and FY2023, the difference between users and non-users was no longer statistically significant.

The ROA of firms using the employment assistance subsidy showed no significant difference from non-users until FY2018, but it then declined sharply and remained significantly negative through FY2023, although the magnitude of the gap narrowed considerably in FY2023. Firms using the subsidy to sustain business exhibited a similar pattern to those using the employment assistance subsidy, but the significant difference with non-users disappeared in FY2022 and FY2023. For both policies, coefficient α_1 is negative and significant at the 1% level, indicating that, on average, the ROA of policy-using firms was approximately 1–2 percentage points lower than that of non-users over the sample period.

Figure 4 reports the results with mean wages as the dependent variable (see Appendix **Table A4** for detailed estimation results). The average wage level over the sample period for firms using financial assistance was about 12% lower than that of non-users, but the interaction terms with year are not statistically significant for any period, including the COVID-19 years. Firms using the subsidy to sustain business show a similar pattern: their mean wages were about 7% lower than those of non-users, with only a marginally significant (10% level) negative interaction coefficient in FY2020. In other words, there is no evidence that firms using financial assistance or the subsidy to sustain business continued to suppress wages compared with non-using firms after the pandemic.

In contrast, the pattern for firms using the employment assistance subsidy is different. Their mean wage level over the sample period was about 8% lower than that of non-users. While the interaction terms were not significant before FY2019, the coefficient became significantly negative in FY2020, and this negative gap persisted even after the pandemic subsided. This suggests that prioritizing job retention may have led to slower subsequent wage growth.

Table 3 compares changes in the number of employees between policy users and non-users. The regression uses the log of the number of employees in FY2023 as the dependent variable,

with dummies for policy use (in FY2020 or FY2021), the log of employees in FY2019 (pre-pandemic), firm size (log of capital), and industry dummies as explanatory variables. Across all three support measures, firms that used them reduced employment by approximately six percentage points more than non-users through FY2023. Even among firms that survived to FY2023, employment declined relatively more for those that had used the support measures.

These estimates include only firms that remained active in FY2023; those that exited due to COVID-19 are excluded. Because the BSJBSA applies sample size thresholds (e.g., at least 50 regular employees) and has non-respondents, precise exit analysis is difficult. Bearing this limitation in mind, **Table 4** presents result from a probit model in which firms absent in the FY2023 sample are coded as "1" (exited). Since the survey respondents were firms existing in FY2021, this estimation covers exit probabilities over the subsequent two years (FY2021–FY2023).

The coefficients for firms using financial assistance and the subsidy to sustain business are positive and significant at the 1% level, implying an approximately 3% higher probability of exit by FY2023 (columns (1) and (3) of Table 4). In contrast, the coefficient for firms using the employment assistance subsidy is not statistically significant (column (2)). The coefficients for TFP in FY2021 are all significantly negative at the 1% level, indicating that more productive firms were more likely to survive. Quantitatively, a doubling of TFP is associated with about a 2% lower probability of exit. Compared with the reference estimation without policy variables (column (4)), the absolute value of the TFP coefficient is slightly smaller, though the difference is not substantial. When the interaction term between policy use and TFP is added (see Appendix **Table A5**), the coefficient is statistically insignificant. In other words, the selection mechanism based on productivity among policy-using firms does not differ significantly from that among non-users.

As mentioned before, firms that were less productive before the pandemic were more likely to use support measures, and the gap with non-users remained large even after the pandemic subsided. However, the results suggest that firm support policies during the COVID-19 pandemic did not significantly undermine the overall mechanism of productivity-based selective exit.

5. Conclusion

This study analyzed the post-pandemic performance of firms that used COVID-19-related support measures—financial assistance, the employment assistance subsidy, and the subsidy to sustain business—by linking original firm survey data with panel data from government statistics. The major findings are as follows.

First, although productivity among firms that received support improved relative to levels immediately following the crisis, it generally remained low even after the pandemic had subsided, with the quantitative magnitude differing across policy measures. Second, the profitability and mean wages of firms using financial assistance and the subsidy to sustain business returned to pre-COVID-19 levels, whereas the mean wages of firms using the employment assistance subsidy remained low as of FY2023. Third, employment among firms that used support measures declined relative to non-users through FY2023. Fourth, lower-productivity firms were more likely to exit during the COVID-19 pandemic, and firms using support measures had a lower probability of surviving through FY2023 even after controlling for productivity. This suggests that many firms failed to survive despite receiving support. However, no quantitatively significant negative impact of support measures on the natural selection mechanism—whereby less productive firms exit—was detected.

From the perspective of medium- to long-term productivity and wage growth, it is important to design crisis-period policy measures carefully to avoid making them excessively generous or prolonged.

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Table 1. Percentages of firms using support policies.

	(1) Users	(2) FY2020	(3) FY2021
Financial assistance	24.0%	20.9%	9.3%
Employment assistance subsidy	49.3%	46.7%	28.3%
Subsidy to sustain business	18.2%	18.2%	—

Notes: N=3,123. Since some firms used the policy measures in both FY2020 and FY2021, the figure for column (1) does not match the sum of columns (2) and (3). The subsidy to sustain business was implemented only in FY2020.

Table 2. Summary statistics of the dependent variables.

	(1) All firms			(2) Mean of policy users		
	N	Mean	SD	Financial assistance	Employment assistance subsidy	Subsidy to sustain business
Labor productivity	36,578	1.292	0.533	1.057	1.194	1.104
TFP	36,406	-0.099	0.453	-0.265	-0.153	-0.205
ROA	39,665	0.042	0.118	0.024	0.033	0.027
Mean wages	38,242	1.606	0.408	1.465	1.549	1.489

Note: Labor productivity, TFP, and mean wages are expressed in logarithm.

Table 3. Policy users' change in employment.

	(1) Financial assistance	(2) Employment assistance subsidy	(3) Subsidy to sustain business
Policy_user	-0.0590 ***	-0.0599 ***	-0.0612 ***
	(0.0124)	(0.0089)	(0.0126)
Nobs.	2,800	2,800	2,800
Adjusted R^2	0.9428	0.9431	0.9427

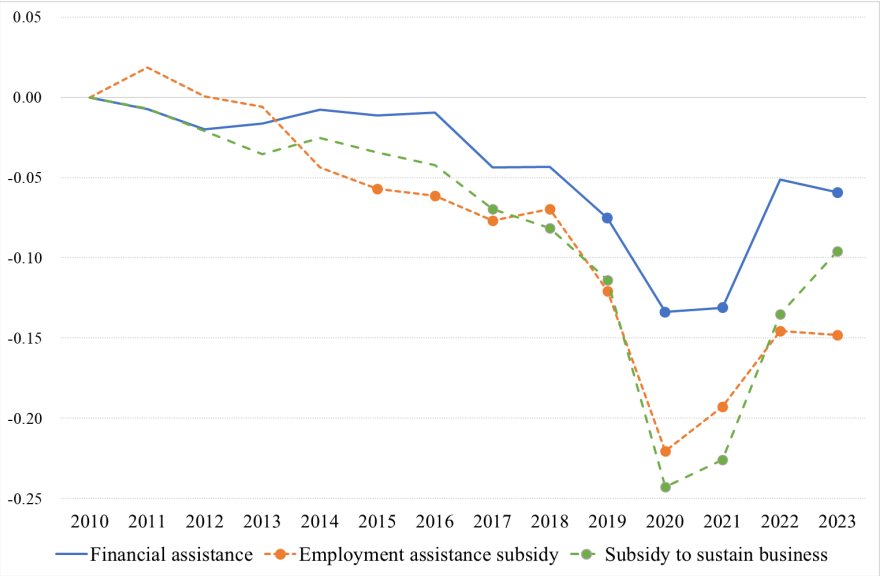
Notes: OLS estimation results with robust standard errors reported in parentheses. ***: $p<0.01$. The dependent variable is the number of employees in FY2023 (expressed in log). The number of employees in FY2019, firm size (log of capital), and industry are controlled.

Table 4. Policy users' probability to exit.

	(1) Financial assistance	(2) Employment assistance subsidy	(3) Subsidy to sustain business	(4) Reference
Policy_user	0.0309 ***	0.0043	0.0314 ***	
	(0.0116)	(0.0086)	(0.0129)	
TFP	-0.0253 ***	-0.0299 ***	-0.0265 ***	-0.0306 ***
	(0.0085)	(0.0084)	(0.0083)	(0.0082)
Nobs.	2,733	2,733	2,733	2,733
Pseudo R^2	0.0423	0.0355	0.0414	0.0353

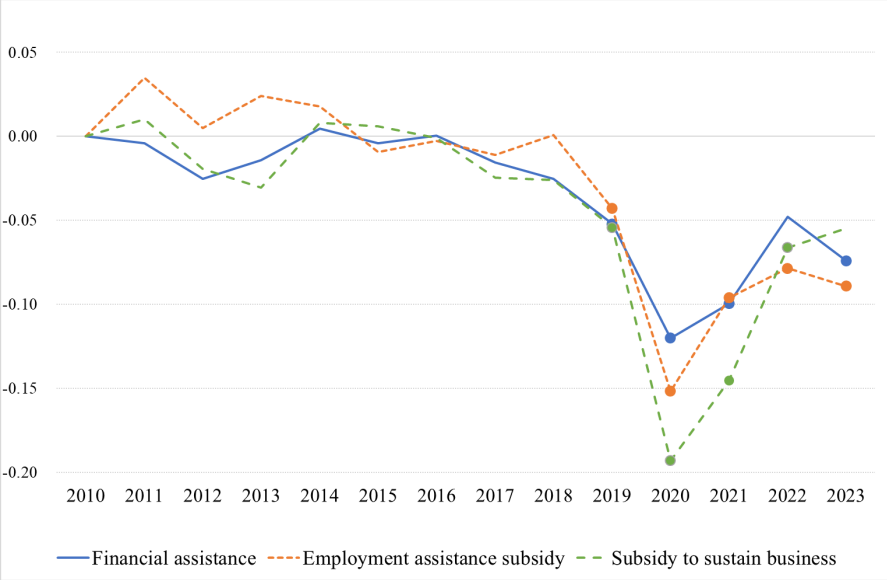
Notes: The figures indicate the marginal effects of the probit estimation with robust standard errors reported in parentheses. ***: $p<0.01$. Dependent variable: 2023 surviving firms = 1. TFP in FY2019, firm size (log of capital), and industry are controlled.

Figure 1. Labor productivity of firms using support policies.



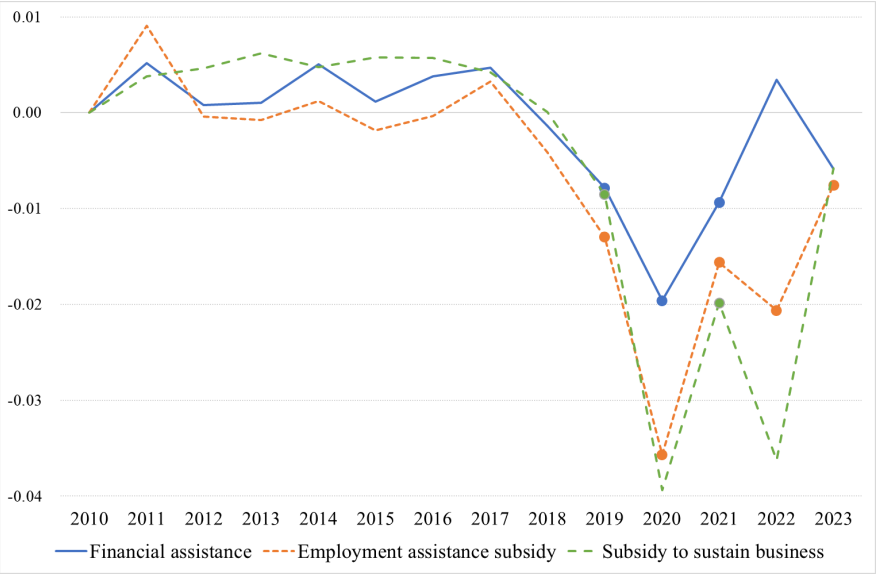
Notes: The figure plots the coefficients of the interaction terms between policy user and fiscal year. See appendix **Table A1** for detailed estimation results. Markers (●) indicate statistically significant (10% level) interaction coefficients.

Figure 2. TFP of firms using support policies.



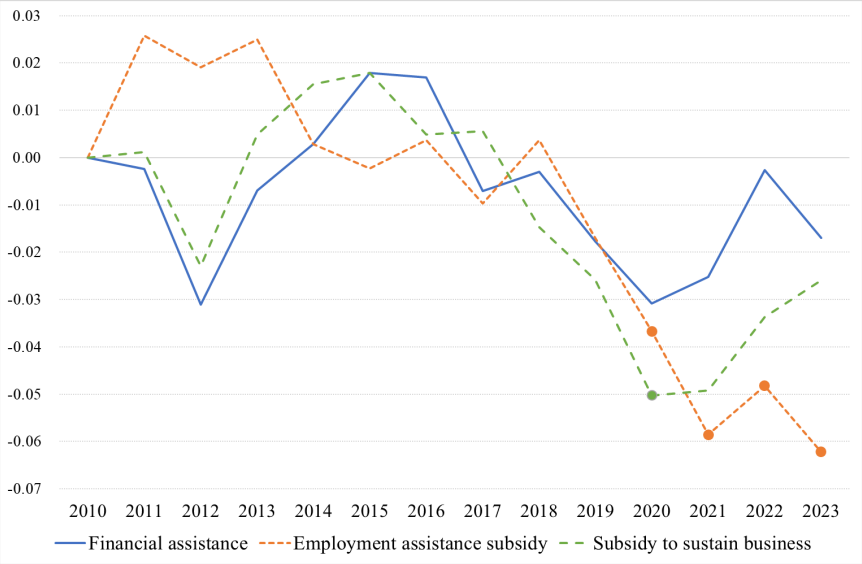
Notes: The figure plots the coefficients of the interaction terms between policy user and fiscal year. See appendix **Table A2** for detailed estimation results. Markers (●) indicate statistically significant (10% level) interaction coefficients.

Figure 3. ROA of firms using support policies.



Notes: The figure plots the coefficients of the interaction terms between policy user and fiscal year. See appendix **Table A3** for detailed estimation results. Markers (●) indicate statistically significant (10% level) interaction coefficients.

Figure 4. Mean wages of firms using support policies.



Notes: The figure plots the coefficients of the interaction terms between policy user and fiscal year. See appendix **Table A4** for detailed estimation results. Markers (●) indicate statistically significant (10% level) interaction coefficients.

Appendix Table A1. Estimation results for labor productivity.

	(1) Financial assistance			(2) Employment assistance subsidy			(3) Subsidy to sustain business		
Policy_user	-0.179	(0.023)	***	-0.088	(0.020)	***	-0.059	(0.027)	**
User*2011	-0.007	(0.032)		0.019	(0.028)		-0.007	(0.037)	
User*2012	-0.020	(0.032)		0.001	(0.028)		-0.021	(0.037)	
User*2013	-0.016	(0.032)		-0.006	(0.028)		-0.035	(0.036)	
User*2014	-0.008	(0.031)		-0.044	(0.027)		-0.025	(0.036)	
User*2015	-0.011	(0.031)		-0.057	(0.027)	**	-0.034	(0.035)	
User*2016	-0.010	(0.031)		-0.061	(0.027)	**	-0.042	(0.036)	
User*2017	-0.044	(0.030)		-0.077	(0.026)	***	-0.069	(0.035)	**
User*2018	-0.043	(0.030)		-0.070	(0.026)	***	-0.081	(0.035)	**
User*2019	-0.075	(0.030)	**	-0.121	(0.026)	***	-0.114	(0.035)	***
User*2020	-0.134	(0.031)	***	-0.220	(0.027)	***	-0.243	(0.038)	***
User*2021	-0.131	(0.035)	***	-0.193	(0.029)	***	-0.226	(0.042)	***
User*2022	-0.051	(0.034)		-0.146	(0.030)	***	-0.135	(0.040)	***
User*2023	-0.059	(0.033)	*	-0.148	(0.029)	***	-0.096	(0.038)	**
Firmsize	yes			yes			yes		
Industry	yes			yes			yes		
Year	yes			yes			yes		
Nobs.	36,578			36,578			36,663		
Adj R-squared	0.1743			0.1723			0.1567		

Notes: OLS estimation results with robust standard errors reported in parentheses. ***: p<0.01, **: p<0.05, *: p<0.10. FY2010 is the omitted category.

Table A2. Estimation results for TFP.

	(1) Financial assistance			(2) Employment assistance subsidy			(3) Subsidy to sustain business		
Policy_user	-0.150	(0.021)	***	-0.071	(0.018)	***	-0.054	(0.023)	**
User*2011	-0.004	(0.028)		0.035	(0.025)		0.010	(0.032)	
User*2012	-0.025	(0.029)		0.005	(0.025)		-0.019	(0.033)	
User*2013	-0.014	(0.029)		0.024	(0.025)		-0.031	(0.032)	
User*2014	0.005	(0.028)		0.018	(0.025)		0.008	(0.032)	
User*2015	-0.004	(0.027)		-0.009	(0.024)		0.006	(0.031)	
User*2016	0.001	(0.028)		-0.003	(0.024)		-0.001	(0.032)	
User*2017	-0.016	(0.027)		-0.011	(0.024)		-0.024	(0.031)	
User*2018	-0.025	(0.027)		0.001	(0.023)		-0.026	(0.030)	
User*2019	-0.052	(0.026)	**	-0.043	(0.023)	*	-0.054	(0.031)	*
User*2020	-0.120	(0.028)	***	-0.151	(0.024)	***	-0.193	(0.033)	***
User*2021	-0.100	(0.031)	***	-0.096	(0.026)	***	-0.145	(0.037)	***
User*2022	-0.048	(0.030)		-0.078	(0.027)	***	-0.066	(0.035)	*
User*2023	-0.074	(0.029)	**	-0.089	(0.026)	***	-0.055	(0.033)	
Firmsize	yes			yes			yes		
Industry	yes			yes			yes		
Year	yes			yes			yes		
Nobs.	36,406			36,406			36,406		
Adj R-squared	0.0754			0.0613			0.0551		

Notes: OLS estimation results with robust standard errors reported in parentheses. ***: p<0.01, **: p<0.05, *: p<0.10. FY2010 is the omitted category.

Table A3. Estimation results for ROA.

	(1) Financial assistance			(2) Employment assistance subsidy			(3) Subsidy to sustain business		
Policy_user	-0.020	(0.002)	***	-0.009	(0.002)	***	-0.011	(0.003)	***
User*2011	0.005	(0.007)		0.009	(0.009)		0.004	(0.007)	
User*2012	0.001	(0.003)		0.000	(0.003)		0.005	(0.004)	
User*2013	0.001	(0.003)		-0.001	(0.003)		0.006	(0.004)	
User*2014	0.005	(0.003)		0.001	(0.003)		0.005	(0.004)	
User*2015	0.001	(0.003)		-0.002	(0.003)		0.006	(0.004)	
User*2016	0.004	(0.004)		0.000	(0.004)		0.006	(0.004)	
User*2017	0.005	(0.005)		0.003	(0.007)		0.004	(0.006)	
User*2018	-0.001	(0.003)		-0.004	(0.003)		0.000	(0.004)	
User*2019	-0.008	(0.003)	**	-0.013	(0.003)	***	-0.009	(0.004)	**
User*2020	-0.020	(0.004)	***	-0.036	(0.004)	***	-0.039	(0.006)	***
User*2021	-0.009	(0.004)	**	-0.016	(0.004)	***	-0.020	(0.005)	***
User*2022	0.003	(0.007)		-0.021	(0.010)	**	-0.036	(0.026)	
User*2023	-0.006	(0.004)		-0.008	(0.003)	**	-0.006	(0.005)	
Firmsize	yes			yes			yes		
Industry	yes			yes			yes		
Year	yes			yes			yes		
Nobs.	39,665			39,665			39,665		
Adj R-squared	0.0132			0.0132			0.0122		

Notes: OLS estimation results with robust standard errors reported in parentheses. ***: p<0.01, **: p<0.05. FY2010 is the omitted category.

Table A4. Estimation results for mean wages.

	(1) Financial assistance			(2) Employment assistance subsidy			(3) Subsidy to sustain business		
Policy_user	-0.130	(0.019)	***	-0.086	(0.016)	***	-0.072	(0.023)	***
User*2011	-0.002	(0.027)		0.026	(0.023)		0.001	(0.032)	
User*2012	-0.031	(0.026)		0.019	(0.023)		-0.023	(0.032)	
User*2013	-0.007	(0.026)		0.025	(0.023)		0.005	(0.030)	
User*2014	0.003	(0.025)		0.003	(0.022)		0.016	(0.029)	
User*2015	0.018	(0.025)		-0.002	(0.022)		0.018	(0.030)	
User*2016	0.017	(0.025)		0.004	(0.021)		0.005	(0.030)	
User*2017	-0.007	(0.024)		-0.010	(0.021)		0.006	(0.029)	
User*2018	-0.003	(0.023)		0.004	(0.020)		-0.015	(0.028)	
User*2019	-0.018	(0.023)		-0.017	(0.020)		-0.026	(0.027)	
User*2020	-0.031	(0.023)		-0.037	(0.020)	*	-0.050	(0.028)	*
User*2021	-0.025	(0.026)		-0.059	(0.023)	**	-0.049	(0.031)	
User*2022	-0.003	(0.027)		-0.048	(0.024)	**	-0.034	(0.033)	
User*2023	-0.017	(0.027)		-0.062	(0.024)	***	-0.026	(0.032)	
Firmsize	yes			yes			yes		
Industry	yes			yes			yes		
Year	yes			yes			yes		
Nobs.	38,242			38,242			38,242		
Adj R-squared	0.1254			0.1205			0.1125		

Notes: OLS estimation results with robust standard errors reported in parentheses. ***: p<0.01, **: p<0.05, *: p<0.10. FY2010 is the omitted category.

Table A5. Probability to exit including interaction terms.

	(1) Financial assistance	(2) Employment assistance subsidy	(3) Subsidy to sustain business
Policy_user	0.0267 **	0.0029	0.0308 **
	(0.0123)	(0.0090)	(0.0138)
TFP	-0.0199 *	-0.0240 *	-0.0257 **
	(0.0116)	(0.0142)	(0.0113)
Policy_user*TFP	-0.0132	-0.0094	-0.0019
	(0.0170)	(0.0177)	(0.0166)
Nobs.	2,733	2,733	2,733
Pseudo R2	0.0428	0.0358	0.0414

Notes: The figures indicate the marginal effects of the probit estimation with robust standard errors reported in parentheses. ***: p<0.01. Dependent variable: FY2023 surviving firms = 1. In the estimations, TFP in FY2019, firm size (log of capital), and industry are included as explanatory variables.