



Business Power and Mobility to Workplaces in Italian Regions during the First COVID-19 Wave

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Abstract: *The diffusion of the pandemic and the severity of COVID-19-related measures were very uneven across regions; however, the intensity of the restrictions was not always tightly linked with the strength of the pandemic. Economic interests and business power might have played a role in defining political responses at the local level, which are in turn able to shape the intensity of work-related mobility. This article aims at investigating whether regional variations in the stringency of COVID-19-related measures have actual impacts on work-related mobility and whether there is an independent effect of the pressure exerted by unions and businesses, assuming mobility to be governed concurrently by stringency, pandemic intensity, and pressure. Through the analysis of original regional-level indicators of stringency and public pressure, we demonstrate that trade unions' pressure is associated with a decrease in work-related mobility during the first COVID-19 wave in Italy.*

1. INTRODUCTION

Italy was the first western country to be severely hit by the COVID-19 pandemic, leading to the imposition of a national lockdown beginning on the 10th of March 2020 (Dell’Omo et al., 2021). Citizens were thus obliged to stay at home – unless it was urgently needed – and all non-essential production activities were forced to close. The economic activities deemed to be essential (e.g., pharmacies, bakeries, etc.) were authorised to carry on with their work – and their employees were accordingly allowed to keep going to work. Some firms involved in the production of non-essential goods, however, could continue to operate after filing a derogation request to the local government authorities. Deviations from the national rules applying to specific sectors were implemented by most regions.

The lockdown was eased since the 4th of May when most economic activities slowly started to reopen. The key aspect of the lockdown strategy was to limit contact between people (and, therefore, infections). Hence, the observance of the restrictions and the adherence of citizens to the government’s prescriptions was the keystone of the whole pandemic-containment operation during the first COVID-19 wave (Panarello & Tassinari, 2022).

In examining the dynamics of the restrictions, however, it must be borne in mind that trade unions kept pushing for stricter containment measures and closure of non-essential workplaces, caring for workers’ safety, while business organisations were skeptical about implementing harsh restrictions and exerted considerable pressure intending to relax them, to avoid adverse impacts on the economy. Such pressure was particularly relevant at the regional level. Policy-makers can be expected to be influenced by the preferences of business organisations regarding

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lockdown stringency, both to preserve business confidence and future investments and to prevent them from mobilising their resources through lobbying or public media campaigns (Culpepper, 2015; Fairfield, 2015).

The aim of our investigation is to verify whether regional-level variations in the stringency of COVID-19-related measures have actual impacts on variations of mobility towards workplaces on the ground (i.e., whether regional stringency really matters to what happens in the real economy) and whether there is an independent impact of the preferences and pressure of organised economic interests – unions and business organisations – and the specificities of the local economies.

2. MODEL AND VARIABLES

The main hypothesis of this work is that mobility toward workplaces is governed concurrently by the stringency of COVID-19-related measures, by the intensity of the pandemic, and by the pressure exerted by unions and business organisations.

The key variable, which is used as the dependent variable in the estimations, is mobility toward workplaces (Figure 1), taken from Google's Community Mobility Reports (Google LLC, 2020), capturing the percentage change in the number of visitors to workplaces compared to a pre-pandemic baseline, referring to the period going from the 3rd of January to the 6th of February 2020. From the daily data provided by Google, we computed an average value for each analysed weekly time point.

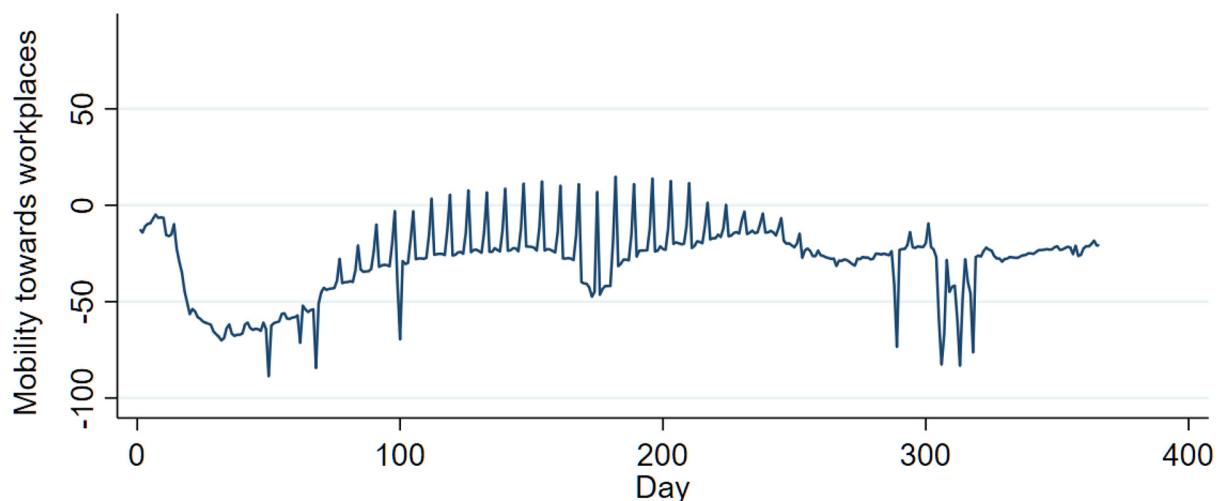


Figure 1. Daily percentage changes in mobility toward workplaces in Italy (first year of the COVID-19 pandemic)

Source: Google LLC, 2020.

We built an original regional-level stringency index for Italy, tracing the over-time policy responses of Italian regional governments to the pandemic outbreak at weekly intervals in the period February-June 2020. We coded all the regional ordinances and regulations concerning non-pharmaceutical responses to the pandemic, capturing the regional-level deviations from the national rules concerning the operation of specific economic sectors. Then, we developed a composite indicator following the methodology developed by Hale et al. (2020) for their Oxford COVID-19 Government Response Tracker's Stringency Index, assigning a different stringency score to each weekly time point and region.

We also constructed two indicators of public pressure by analysing the 28,331 tweets published by business organisations and trade unions in the period of interest. Specifically, we conducted a dictionary-based sentiment analysis (Moreno & Iglesias, 2020) of all the social media communications posted on Twitter by the regional divisions of the main organised business groups and trade unions in Italy in the period February-June 2020. For what concerns COVID-19-related communications, we categorised them into positive, negative, and neutral tweets, through the use of three polarised dictionaries. The two pressure indexes – one concerning trade unions and one concerning business organisations – were computed by dividing the number of COVID-19-related tweets with a negative meaning by the total number of tweets published in the same period, to measure the relative importance of the COVID-19 issue over the usual communication. As a robustness check, we also use the absolute number of COVID-19-related tweets with a negative meaning in lieu of the pressure indexes in some of the models, to consider the absolute impact of the social media activity of trade unions and business organisations on public opinion and, consequently, on policymakers' orientations.

To capture the intensity of the pandemic over time, we collected the distribution of COVID-19 deaths, released by the Italian Civil Protection (Dipartimento della Protezione Civile, 2020). For each time point and region, we divided the cumulative number of regional deaths recorded on the last day of the considered time point by the regional population.

Finally, we make use of the quarterly unemployment rate and eight time-invariant variables describing the socio-economic and political characteristics of the regions, provided by the Italian National Institute of Statistics (Istat): proportion of large firms (10 or more employees) over the total number of firms; political spectrum of the regional government (dichotomic variable taking value 0 for left or centre-left, and 1 for right or centre-right); electoral cycle (dichotomic variable taking value 1 if regional elections are going to take place within the following twelve months); number of employees in manufacturing over the regional population; number of employees in hotels, restaurants and retail over the regional population; per capita gross domestic product; services value-added over GDP; and manufacturing value-added over GDP.

We estimate four GLS panel regression models of the percentage change in work-related mobility compared to the pre-pandemic period, using various combinations of the above-mentioned characters as explanatory variables, whereby stringency and cumulative deaths are always included as regressors. All the models incorporate time fixed-effects.

3. RESULTS

The outcomes from the four estimated models are presented in Table 1. In these models, we have missing values in the first two weeks of the dataset and time-varying variables with two lags: therefore, two time periods (42 observations) get lost overall, leading to 378 available observations.

Out of the estimated models, the second one appears to best reflect the variability of work-related mobility, being characterised by the largest R-squared between. Therefore, we will only comment on the results from this model. Both the regional stringency and the public pressure exerted by trade unions are highly significant, with a negative sign, as could be expected in accordance with our hypotheses. Among structural variables, only GDP per capita is significant, with a negative sign, which likely reflects the diffusion of remote working in high-value-added jobs. All the coefficients related to time fixed-effects (omitted for the sake of brevity) are significant, with p-values lower than 0.01.

Table 1. Results from Models 1 to 4

Variable	Coefficient (Model 1)	Coefficient (Model 2)	Coefficient (Model 3)	Coefficient (Model 4)
Stringency (lag 2)	-0.117**	-0.121**	-0.123**	-0.127**
Cumulative deaths by population (lag 2)	-793.835	344.023	-784.623	364.989
Pressure: Trade unions (lag 2)	-4.851*	-4.558*		
Pressure: Business organisations (lag 2)	2.149	1.921		
Absolute number of Trade unions' negative COVID-19-related tweets (lag 2)			-0.127***	-0.131***
Absolute number of Business organisations' negative COVID-19-related tweets (lag 2)			0.047	0.062
Percentage of firms with 10+ employees	-1.201**	0.300	-1.370***	0.312
Unemployment rate	0.209*	-0.183	0.210*	-0.196
Political spectrum (0=centre-left; 1=centre-right)	0.920	0.207	0.483	-0.228
Electoral cycle (1=regional elections taking place within 12 months; 0=otherwise)	0.268	0.604	0.208	0.527
Thousands of employees in manufacturing over regional population	37501.906**		47334.001**	
Thousands of employees in hotels, restaurants and retail over regional population	1.26e+05***		1.27e+05***	
Per capita GDP		-0.000*		-0.000*
Services value-added over GDP		-0.361		-0.338
Manufacturing value-added over GDP		-0.309		-0.250
Intercept	-8.996**	35.908	-8.626**	34.427
Observations	378	378	378	378
R-squared (within)	0.988	0.988	0.989	0.988
R-squared (between)	0.318	0.488	0.285	0.479
R-squared (overall)	0.983	0.984	0.983	0.984

Note: *, ** and *** stand for $p < 0.10$, $p < 0.05$ and $p < 0.01$.

4. CONCLUSION

Our results clearly show that an increase in stringency directly brings about a reduction in mobility toward workplaces, disturbing economic activity. This is an indicator of the fact that the level of stringency does in fact matter in terms of affecting developments on the ground as regards workplace/economic activity. Hence, it shows that there are good reasons why employer groups would care about influencing the intensity of regulations at the regional level. The models additionally show that trade unions' pressure is also associated with a decrease in work-related mobility. We must underline that the two pressures – related to employers and trade unions – have opposite signs, albeit the first one is not significant. Most structural variables pertaining to the socio-economic context are not significant, except for the employment-related variables in Models 1 and 3 as well as per capita gross domestic product in Models 2 and 4.

Indeed, the specifications shown in Models 1 and 3 highlight interesting results. Here, as we would expect, the coefficients pertaining to the share of employees in manufacturing and hospitality-related sectors are both significant and with a positive sign. The unemployment rate is also significant and with a positive sign, which can be rationalised as a reason for regional governments to be less “stringent” in the execution of COVID-19-related restrictions so as not to negatively affect employment dynamics. Lastly, the percentage of large businesses (firms with ten or more employees) has a negative relationship with work-related mobility. This can be interpreted as a consequence of the fact that larger firms are also more structured and can organise remote working easier compared to the smaller ones.

As regards per capita GDP (Models 2 and 6), it must be borne in mind that the activities characterised by the highest value-added (business services, banks, insurance companies, service activities incorporated in manufacturing businesses) are easily transferable into a remote-working model, which obviously results in mobility reductions. By contrast, non-teleworkable, material-type production activities have a lower per capita value-added.

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