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Impacts of the closure of economic activities and the use of the Ordinary Wages Guarantee Fund (WGF) and smart working (SW) on the propensity to participate in surveys on enterprises (structural & economic) underway during the pandemic.

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This paper aims to analyse the propensity of companies to participate in surveys, be they structural (Structure of Earnings Survey - SES) or short-term (Employment in large enterprises survey, Retail trade survey, Turnover and orders survey and Industrial production survey).

In order to reduce the impacts of total response losses and maintain continuity and quality of statistical information, the conduction of the ongoing investigations in March 2020 continued with various postponements of the deadlines for data transmission, in the case of structural surveys, and the remodulation of the deadlines for the transmission of data referring to the months from January to April 2020, in the case of short-term surveys.

The elements that will be taken into account in order to characterize whether or not they participated in the various surveys - in addition to the classic ones, identified in the class of employees and geographical location - are represented by variables that emerged from the aforementioned survey, such as the use of the Wage Guarantee Fund, smart working, the suspension of activities and those not suspended or in derogation as request by the company itself.

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1. Introduction

The pandemic hit quite heavily Italian life and economy during spring period. Several governmental decrees and actions[4] have been taken since then and referring to pandemic period three main Phases can be identified in relation to economic activity: Phase 1 - Lock down, Phase 2 - Re-opening, Phase 3 - Economic recovery. During the Lock down, starting from March 9th, Government adopted strict rules reducing free movements of people on national territory and imposed the suspension of several economic activities; than from May 4th it took place the Re-opening of several economic activity and restriction on people movements were reduced; finally - by mid of June - Government adopted several plans to relaunch the economy at national level so that the business recovery could start somehow.

At statistical level, Data collection Directorate in Istat performed several actions in order to face the crisis: on one hand, the adoption of strategies to reduce respondent burden and maintain response rate at a reasonable level in order to cope with data quality requirements demanded at international level; on the other hand, the output of new information needed to be collected for policy makers, scientist, analysts and the general public. Thus Istat ran an extraordinary survey in May 2020 on *Business situation and prospects*

[1] Paragraph 2, 2.2, 4.
[2] Paragraph 3.
[3] Paragraph 1, 2.1.
[4] Web page on measures adopted by Italian Government http://www.governo.it/it/coronavirus-misure-del-governo.

in the Covid-19 health emergency (*Covid survey* in the following) in order to collect information on economic situation and strategies adopted to face the crisis. The survey included 90,000 companies (3+ employees) respondents to the permanent census of businesses in 2019 and the response rate achieved was 46.5 percent.

Some information arising from the survey, such as the use of *Ordinary Wages Guarantee Fund* (WGF) and *smart working* (SW) , the suspension (imposed by decree or voluntary) and the re-opening of some specific economic activities, were used to focus whether they had an effect on the attendance rates of enterprises to both structural and short-term economic surveys ongoing during the pandemic.

The surveys included in the study are Structure of Earning Survey – SES, as structural survey, and the following short-term surveys: i) Employment in large enterprises; ii) Turnover and orders; iii) Industrial production and vi) Retail trade.

2. Structural surveys

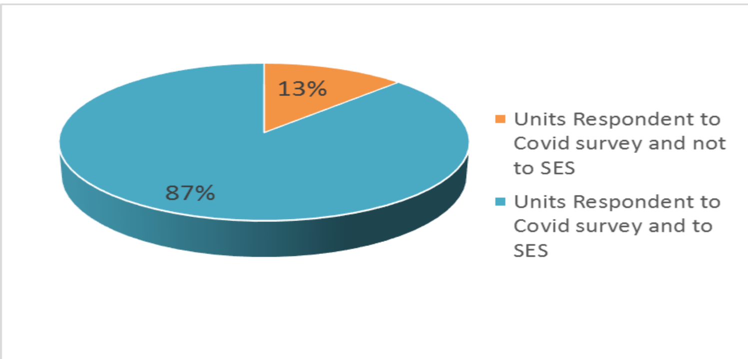
Structural surveys underway during the Pandemic were SES, Research and Development, Industrial production and Outward and the reason for including SES in this study is its final score. In fact the response rate for SES was slightly less than the amount scored in the previous edition, with a decrease of 3.5 percentage points, difference that is higher than what recorded for Industrial production and Outward. For Research and development, for which the final response rate was even lower, a different reasoning should be adopted as the sample was enlarged taking into account units not considered the year before, factor that could have affected the final outcome.

2.1 Units included in the analyses and their characteristics

The study focuses on the behaviour of 4,464 units responding to Covid survey and included in the SES, thus covering 20.2 percent of the SES sample. Other 3,415 units included in both surveys didn't answer to the Covid, thus for them there is not information available on the effects of the Pandemic on their organization and economic activity. We can only compare the response rate of the two groups of units to SES, that in the first case is much larger and reached 87.2 whereas in the second one was only 65.2 percent.

Moreover, among the units respondent to the Covid survey, a quota of 87 percent attended also SES.

Graph 2.1. Units respondent to Covid survey and included in SES



Source: Istat data elaboration

Analysing their characteristics it's possible to see that in the units filling in both questionnaires are more represented the ones with larger dimension, in fact 51.2 percent of the them had 250 employees or more, compared to the 38.3 percent of the ones not repondending to SES.

Table 2.1. Units respondent to Covid survey and included in SES by size classes of employees

SIZE CLASSES OF EMPLOYEES	Units Respondent to Covid survey and not to SES		Units Respondent to Covid survey and to SES	
	a.v.	%	a.v.	%
Less than 20	105	18.7	479	12.3
20 |-- 50	62	11.0	409	10.5
50 |-- 100	39	6.9	258	6.6
100 |-- 250	141	25.0	760	19.5
250 |-- 500	114	20.2	1,127	28.9
500 and more	102	18.1	868	22.3
TOTAL	563	100.0	3,901	100.0

Source: Istat data elaboration

Regarding geographical distribution, units responding to both surveys where mostly in the Northern area (61.8 percent), whereas the ones non responding to SES are mainly located in the south (61 percent).

Table 2.2. Units respondent to Covid survey and included in SES by geographical area

GEOGRAPHICAL AREA	Units Respondent to Covid survey and not to SES (%)	Units Respondent to Covid survey and to SES (%)
North-est	18.7	24.0
North-west	29.3	37.8
Centre	20.8	20.0
South and Islands	31.2	18.2
TOTAL	100.0	100.0

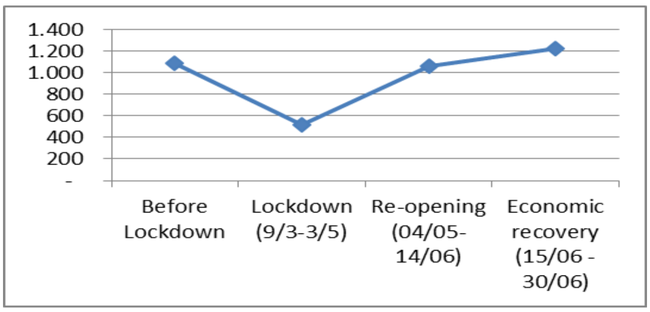
Source: Istat data elaboration

2.2 Results

The trend of outcomes of Covid units answering to SES by Covid-19 Phase shows that a big decrease in SES – survey participation is recorded in the most critical period of the pandemic, the Lock down, and the majority of the surveyed units transmitted data when strict lock down measures were over, that is after 3rd of May. In fact 59 percent of the questionnaire were received by then till the end of the data collection period, the 30th of June. We have to underline that the deadline was originally set at the 23rd of March and postponed by Istat several times until the mentioned one.

Postponement of deadlines was infact one of the strategies adopted by Istat for structural surveys going on during the pandemic in order to reduce respondent burden on enterprises, maintaining a good data quality and keeping the response rate in line with the ones previously scored.

Graph 2.2 and Table 2.3. Respondents to Covid survey answering to SES by Phase (absolute values - units)



PHASES	Respondents to Covid survey and to SES		
	a.v.	% on units respondent to Covid	%
Before Lockdown	1,090	24.4	27.9
Lockdown (9/3-3/5)	520	11.6	13.3
Re-opening (04/05- 1	1,064	23.8	27.3
Economic recovery (1	1,227	27.5	31.5
TOTAL	**3,901**	**87.4**	**100.0**

Source: Istat data elaboration

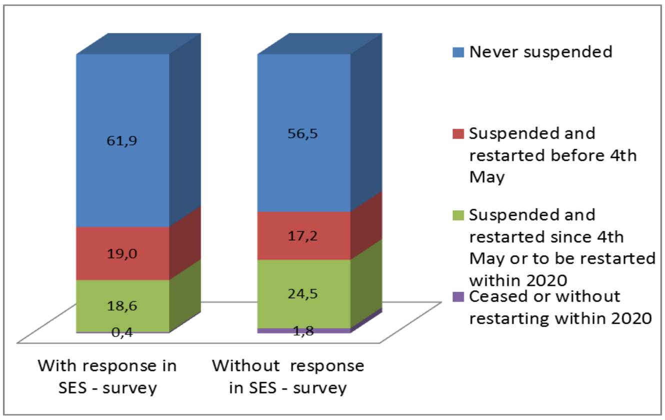
As main aim of the analyses was to assess impact of some measures on response rate to SES, we assumed that the group answering before lockdown phase was not of interest, thus 1,090 units were escluded from the study in the following.

Due to governamental decree or on voluntary bases, many enterprises suspended their activity in the lockdown phase, and when such resctrictions were removed that is the 4th of May many could open again, but not all. Looking at the group under study is possible to state that the majority, around 61 percent, never suspended their activity, thus the remaining are quite equally distributed amond short - reopening before 4th of May - and long suspension of the activity - reopend soon after 4th May or to be reopened within the current year. Very few ceased or will not be able to restart by the end of 2020.

Thus it is interesting to verify how much those measures were spread within the two targeted groups of units: on one hand the units answering to SES and on the oher one the units not answering to it.

Again the group not affected by closure is the majority in both cases, but the in responding group the situation seems to be slightly better than in the other one as the units showed to keep on the economic activity or to have resumed it promptly before 4th of May more often than Non Respondent units.

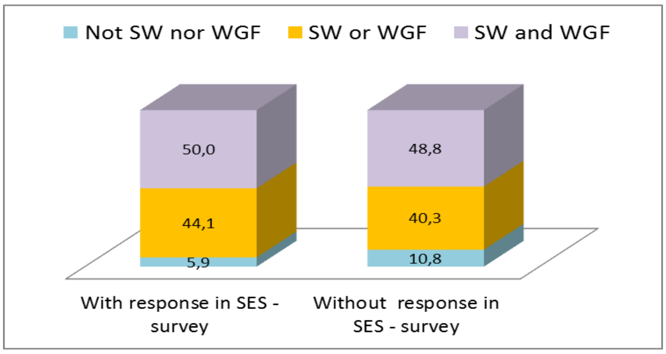
Graph 2.3. Suspension of the economic activity by kind of response in SES (respondent/non respondent)



Source: Istat data elaboration

Moreover, the enterprises in order to face the crisis and due to the limitation of free movement of people and in order to reduce possibility of contagion adopted several measures for personell management. Among them smart working (SW) and Ordinary wage guarantee (WGF) have been used by a large majority of the enterprises (93 percent), and mostly SW and WFG were adopted jointly (50 percent). Moreover, the graph shows that units Respondent to SES showed a larger use of SW and WGF (94.1 percent) than Non Respondent units (89.1 percent).

Graph 2.4. Adoption of personell management measures by kind of response in SES (respondent/non respondent)



Source: Istat data elaboration

Finally looking at response rate by personell management and suspension of activity it becomes clear that units that never suspended the activity and had a short suspension period scored the highest values of response rate (84.5 and 84.7 respectively) as did the units resorting both to SW and/or WGF (83.6 and 84.5 respectively). Among those units with SW and WGF, the ones that suspendend and reopened the activity before 4th of May had a score a little higher than the ones that never closed (86 and 83.1 respectively).

Table 2.4. Response rates to SES by personnel management measures and suspension of economic activity (%)

ECONOMIC ACTIVITY SUSPENSION	Not Sw nor WGF	SW or WGF	SW and WGF	**TotaL**
Never suspended	76.8	86.8	83.1	**84.5**
Suspended and resumed before 4th May	100.0	77.3	86.0	**84.7**
Suspended and resumed since 4th May or to be resumed within 2020	53.6	78.5	81.5	**79.1**
Ceased or without reopening within 2020	54.5	-	-	**54.5**
Total	**73.2**	**84.5**	**83.6**	**83.3**

Source: Istat data elaboration

3. Short-term surveys

The analysis concerns the behavior of the enterprises responding to the extraordinary survey entitled *Business situation and prospects in the Covid-19 health emergency* and those in common with the following short-term economic surveys: Employment in large enterprises, Retail trade, Turnover and orders and Industrial production for the period most affected by the health emergency due to Covid-19, the months January - April 2020.

The following table shows the number of sample units involved in all the months analyzed for each survey and, with a focus on the companies responding to the Covid one, the response rates (RRs) to the economic surveys at the different deadlines indicated in the introduction.

Table 3.1. Number of enterprises involved in short-term economic surveys and Covid survey and RRs at different deadlines - January – April 2020

SURVEYS	Units involved in months Jan-Apr 2020 (a.v.)	Units involved in Covid survey (%)	Units responding by the monthly deadlines and to Covid survey (%)	Units responding by the monthly deadlines in 2019 and to Covid survey (%)	Units responding by 30th Jun and Covid survey (%)
Employment in large enterprises	1,586	86.7	72.6	86.3	94.5
Retail trade	7,626	16.7	68.8	76.2	94.5
Turnover and orders	7,682	58.5	85.9	94.2	98.1
Industrial production	6,362	60.2	76.6	91.2	97.2

Source: Istat data elaboration

Compared to the RR recorded in 2019, in 2020 there is an average decrease of about 11 percentage points (*pp*), mainly due to Industrial production survey and Employment in large enterprises survey, respectively of 14.6 and 13.7. With the extension of the deadline for the transmission of data to June 30th and the gradual recovery of businesses, thanks to the actions introduced by the Government aimed at relaunching the economy, the RRs recorded a significant average increase of about 20 *pp*; the most significant increase is that achieved by Retail trade survey, equal to 25.7 *pp*.

Focusing only on the respondents to both the Covid and the short-term economic surveys, Table 2 shows the consequences that the health emergency had on business activities during the Lock down (until May 4th) and at the beginning of Phase 2.

Table 3.2. Effects of covid-19 on business activities during the two phases of the pandemic

PHASES	Surveys							
	Employment in large enterprises		Retail trade		Turnover and orders		Industrial production	
	a.v.	%	a.v.	%	a.v.	%	a.v.	%
Activity never suspended	459	67.6	315	57.7	936	37.2	821	41.3
Activitiy resumed before May 4th	131	19.3	80	14.7	1,188	47.2	888	44.7
Activity suspended until May 4th and then resumed	88	13.0	147	26.9	391	15.5	277	13.9
Activity suspended until May 4th and never resumed	1	0.1	4	0.7	1	0.0	1	0.1
TOTAL	**679**	100	**546**	100	**2,516**	100	**1,987**	100

Source: Istat data elaboration

A first evidence that emerges from this analysis is that, considering the four surveys overall, about 51 percent of enterprises never stopped activities; looking at results by survey, Employment in large enterprises survey and Retail trade survey have the highest number of companies that did not go out of business, because of governmental decree or voluntary decision, respectively 67.6 percent and 57.7 percent.

About 31.5 percent of enterprises stopped the activity but managed to resume it before May 4th; considering the surveys individually, Turnover and orders survey and Industrial production survey have the highest percentage of companies involved in the suspension of activities, respectively 62.7 percent and 58.6 percent.

Only the 0.2 percent of enterprises on average closed their business before May 4th and won't resume it until at least the end of 2020.

Observing the behavior of the units not responding by the monthly deadlines to the short-term surveys, only 14.3 percent of them on average transmitted data for Covid survey. Compared to respondents, theese enterprises had similar effects on business activities during pandemic: most of them didn't suspend the economic activity or resumed it before the beginning of Phase 2, but the average percentage is little lower than that of responding units, respectively 79.1 percent and 82.5 percent.

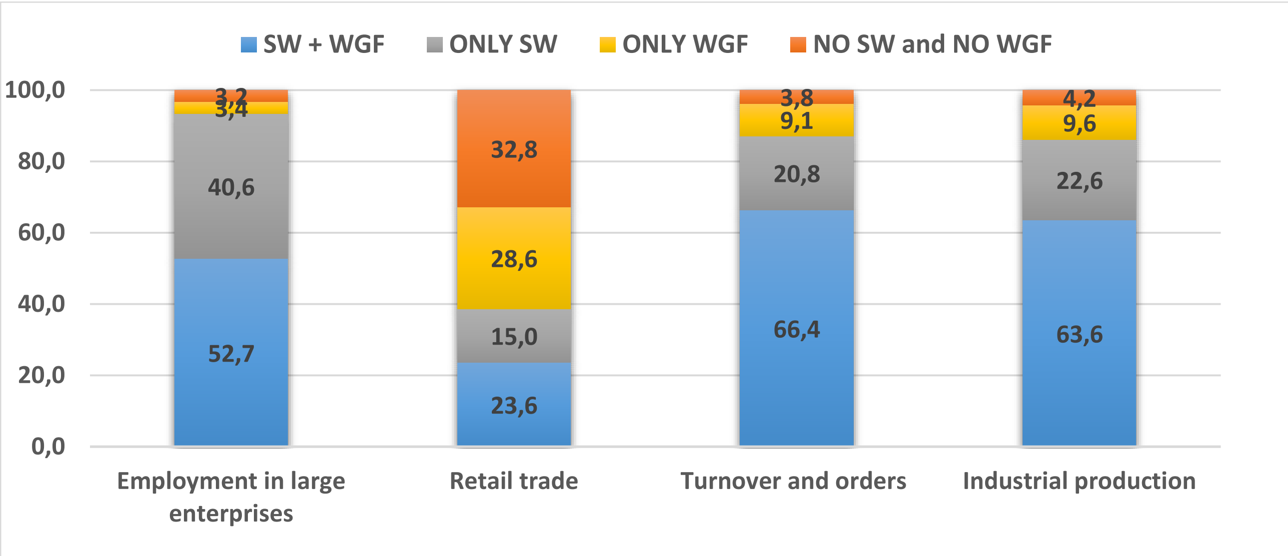
Table 3.3. Effects of Covid-19 on business activities during the phases of pandemic on Units not responding within monthly deadlines to short-term surveys but responding to Covid survey

SURVEYS	Units not responding within monthly deadlines (Jan-Apr 2020)	Units responding to Covid survey (%)	Activity never suspended (%)	Activitiy resumed before May 4th (%)	Activity suspended until May 4th and then resumed (%)	Activity suspended until May 4th and never resumed (%)
Employment in large enterprises	111	40.5	48.9	31.1	20.0	0.0
Retail trade	1386	1.9	38.5	19.2	42.3	0.0
Turnover and orders	590	2.7	43.8	43.8	12.5	0.0
Industrial production	383	12.3	51.1	40.4	8.5	0.0

Source: Istat data elaboration

Again with reference to the units responding both to short-term economic surveys within the monthly deadlines and to Covid survey, graph 1 shows the personnel management measures used by enterprises to deal with the effects of the Covid-19 epidemic. Companies mainly resorted to the combined use of the Ordinary Wages Guarantee Fund (WGF) and smart working (SW), on average the 51.6 percent, except for those involved in the Retail trade survey (only 23.6 percent). On the other hand, among the selected surveys, Retail trade is the one with the highest percentage of enterprises that did not resort to facilitated measures (32.8 percent), but is the one that used the WGF the most (28.6 percent). Only the 11 percent of respondents on average did not resort to the mentioned facilitated misures; if we exclude Retail trade survey, this percentage reduces to 3.7 percent.

Graph 3.1. Main personnel management measures resorted by companies



Source: Istat data elaboration

Focusing on the units not responding within the monthly deadlines to the short-term surveys but responding to Covid survey, they followed the same distribution in the use of main personnel management measures: the adoption of SW and/or WGF was very significant, 89 percent on average - in line with the percentage of the respondents within monthly deadlines, which is 90 percent. The not responding units, as the responding ones, resorted mainly to the combined use of the mentioned measures (about 63 percent on average).

4. Conclusion and further development

During the pandemic, most of the enterprises involved both in the structural and in short-term economic surveys analyzed didn't stop the economic activity or resumed it before May 4th, furthermore there was a massive resort to SW and WGF by the companies, adopted jointly or singularly.

Regarding response rates, in structural surveys, for SES a slightly decrease of response rate has been recorded since last edition and analyses of the strategies adopted by enterprises showed that the long term suspension of economic activity affected the SES response rates determining a lower propensity to participate to it, whereas the adoption of SW and/or WGF supported strongly the businesses so that they could also provide their cooperation transmitting data. On the contrary, the health emergency did not have a significant impact on the RR of the short-term economic surveys. The RRs remained in line with those of 2019 and the motivation is attributable on one hand to the continuation of activities by enterprises, thanks to the extraordinary measures introduced by the Government and the significant use of facilities for personnel management.

As showed by the analysis, time was another relevant factor in determining the final partecipation rates; so the strategy adopted by Istat to introduce the posponement of informative letter deadline, for structural survey, and the possibility to transmit data referring to the terms set by the informative letter with delay, within the June 30th, for short-term surveys, resulted to be successfull. This flexible approach helped enterprises in facing their problems and played a considerable role in reducing the impacts of total response losses and in ensuring the continuity and quality of statistical production even in a crisis situation.

Moreover, in the context of centralized Data collection Directorate, they have been increased the punctuality in monitoring the RRs and the supporting practices aimed to acquiring the data within the terms set by the information letter, as well as sending formal and informal communications by PEC and e-mail and enhancing the telephone reminder activity.

For the future, some deepening are desirable:

- broadening analysis on the factors affecting partecipation rate during pandemic, such as employment dimension and economic sector of the enterprises involved;
- further analysis on results of the new wave of the *Business situation and prospects in the Covid-19 health emergency*, that will be run soon.

5. Acknowledgement

Thanks to Francesca Monetti for supporting data analyses on short-term surveys.

6. References

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