



Department of *Economics and Finance*

Course of *International Economics*

The Impact of Coronavirus Outbreak on The Economy

SUPERVISOR

Prof. Stefano Manzocchi

CANDIDATE

Martina Del Deo

228061

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*Alla mia famiglia, che mi ha
sempre accompagnata in ogni
mia scelta.*

*Al mio ragazzo e ai miei amici,
che mi hanno dato la forza di
continuare il mio percorso, anche
in momenti di difficoltà.*

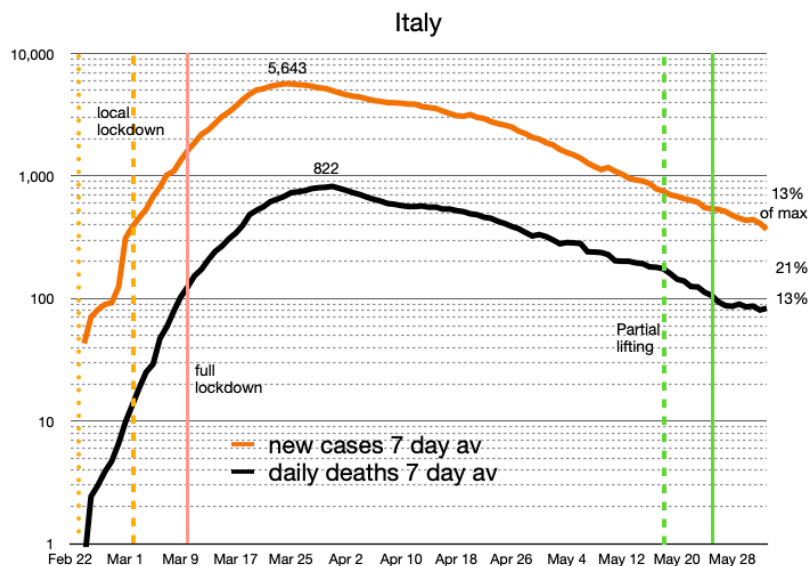
*“Gutta cavat lapidem.”
(Ovidio)*

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Introduction

The COVID-19 pandemic is the defining global health and economic crisis of our time and the greatest challenge we have faced since World War II. Since its emergence in Asia in 2019, the virus has spread to every continent.¹ Italy has been one of the first countries hit by the pandemic, with a first wave of cases of infection that reached its peak last spring. The following graph² shows how the number of cases of infection has fallen, thanks to the introduction of harsh restrictions to stop the citizens' freedom of movement and the manufacturing activities, but it raised back in autumn.



Graph 1: “COVID-19 pandemic in Italy,” *Wikipedia, The Free Encyclopedia* (accessed May 19, 2021)

¹ UNDP, “COVID-19 Pandemic Response. Humanity needs leadership and solidarity to defeat the coronavirus.”

² Wikipedia contributors, “COVID-19 pandemic in Italy,” *Wikipedia, The Free Encyclopedia*, https://en.wikipedia.org/w/index.php?title=COVID-19_pandemic_in_Italy&oldid=1023814672 (accessed May 19, 2021).

The spread of the pandemic has led to a considerable reduction of the economic activity and a huge crisis that hit at a global level. It mostly impacted GDP, but also several indicators of the economy, along the lines of industrial production, business confidence, and redundancy fund hours. The Government adopted numerous measures in order to sustain the supply and demand side, which have been both attacked.

Even the European Union intervened to soften the impact of the disease in economic terms, with the Pandemic Emergency Purchasing Programme, the SURE, and the Next Generation UE.

According to the NACE classification, a deep analysis of all the economic sectors is provided below, with the aim of showing in detail how they have been hit by COVID-19, and whether they managed to, at least slightly, overcome the effects. A brief focus on made in Italy and the service sector will further prove how this pandemic has been able to affect the most important source of money for Italy.

An entire chapter is dedicated to the manufacturing activity, which had to suffer the worst impact among all the sectors. The analysis focuses on each month from the beginning of the spread of the disease to the most recent data, to show in detail how the government restrictions hit the economy.

Furthermore, wholesale, retail and warehousing sector are explored, which, due to the measures affecting the freedom of movement, and the stop of the economic activity, have been mostly shifted to e-commerce; however, the impact on employment appears severe. It is almost certain that COVID-19 will lead to permanent changes in the economy and on the way in which countries cooperate among each other.

The objective is to reach the “new normality” as soon as possible, but cooperation, resistance and trust on medicine will be necessary to achieve such a result in the shortest possible time.

1. Macroeconomic analysis

1.1 The World Economic Crisis

This crisis is characterized by substantially different aspects compared to the past emergencies.

In the first place, it is marked by a negative shock both in the demand and the supply side. The previous crisis of 2008 also recorded strong reductions of GDP, but it was a shock born in the American financial sector, and then spread to the rest of the global economy, with an effect on demand of goods and services. The actual emergency didn't only have a serious impact on demand caused by the reduction of the freedom of movement, but likewise it had a negative effect on supply, determined by the stop of production activities imposed by the authorities. Nevertheless, this measure led to a further negative shock in demand, caused by the reduction in income and the increase of uncertainty.

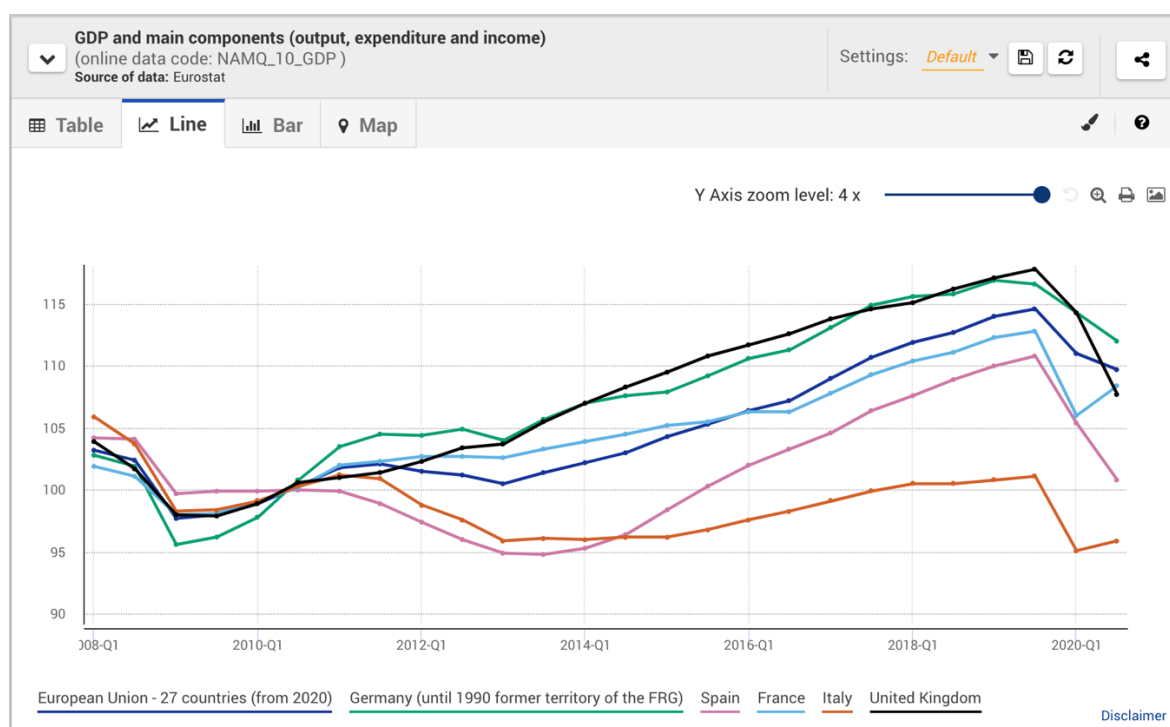
The second exceptional characteristic of the actual crisis regards the fact that, while the economic crisis of 2008 spread from the financial sector to the rest of the economy still affecting only the advanced countries, the actual emergency hit every sector and every country, however at a different level. As a result, the transmission channels of this crisis appear way more complicated than the previous one.

Therefore, the current shock stands out for the speed of spread and the number of countries involved. The financial crisis of 2008, which the United States were at the origin of, spread to the rest of the world, especially hitting economies with an advanced banking system. On the contrary, this pandemic crisis hit in a few weeks China, Europe, US and the rest of the world, including emerging countries like Brazil, India, Mexico, Argentina, where the consequences have been burdensome.

Italy found itself in a situation in which it had to face a condition of weakness on an economic point of view, with respect to other European countries.

After the financial crisis of 2008, Germany, France and United Kingdom started growing again, while for Spain and Italy the phase of economic recession lasted until 2013.

COVID-19 outbreak eventually led to a strong contraction of GDP in every European country much greater than how it was in 2008. The impact of the pandemic hasn't been the same among European countries. As the graph below³ demonstrates, Germany registered a negative impact of the pandemic far less with respect of the other countries. Whereas, Italy and Spain, not only have they seen a lower recovery since 2008 but have also been hit harder by the new crisis, suffering a strong reduction on GDP.



Graph 2: Eurostat database (2020).

³ Source: personal processing of Eurostat database

1.2 The Economic Crisis in Italy

The pandemic had a strong economic impact not only on GDP, but also on different indicators of the national economy. The table below shows the impact of COVID-19 on the trend of some of important economic indicators.

Indicator	2019-Q4	2020-Q2	Variation % Q2- Q4	2020-Q3	Variation % Q3-Q2
GDP (billions of euros)	431.02740	354.02560	-17.86	411.641	+16.20
Industrial production index	101.40	91.20	-10.6	105.1	+15.20
Business confidence index-manufacturing	97.90	81.70	-15.55	92.1	+13.9
Business confidence index-services	101.6	52.50	-48.33	88.8	+69.20
Consumer confidence	108.80	96.40	-11.40	100.2	+3.94
Redundancy fund hours	155.577.386	1.530.901.971	+884.01	664.234.736	-57.91
Debt/GDP	134.80	n/a	n/a	n/a	n/a

Table 1: ISTAT (updated 2020).

As the table above shows, GDP suffered a strong reduction in the second trimester of 2020: a drop of 17.86% with respect of the last trimester of 2019. Also, the index of industrial production and the business and consumer confidence indexes suffered a strong reduction after COVID-19 pandemic. It is evident, however, that there are huge differences among sectors: the business confidence index in the manufacturing activity shrank much less (-16.55%) compared to services sector (-48.33%), which includes activities such as transports and tourism, which COVID-19 hit the most.

Moreover, after a strong contraction in the second trimester of 2020, both industrial production and the confidence index of manufacturing enterprises in the third trimester increased to similar values, if not greater (like in the case of industrial production) than the pre-COVID ones (fourth trimester 2019).

The exceptional nature of the crisis prompted the Italian government to launch (already around March-April 2020) a series of measures equally exceptional, with the purpose of sustaining the national economy both on the demand and the supply side. On the supply side, the government approved measures aimed at protecting the liquidity of the enterprises (mobilizing 120 billions of euros through the *Decreto Liquidità*), fiscal measures such as the tax credit for the recapitalization of companies and the elimination of IRAP balance of June 2020. Eventually, a series of financial guarantees have been made available to companies, through the SACE for the companies of every dimension, through the Guarantee Fund for the SMEs (small and medium enterprises).

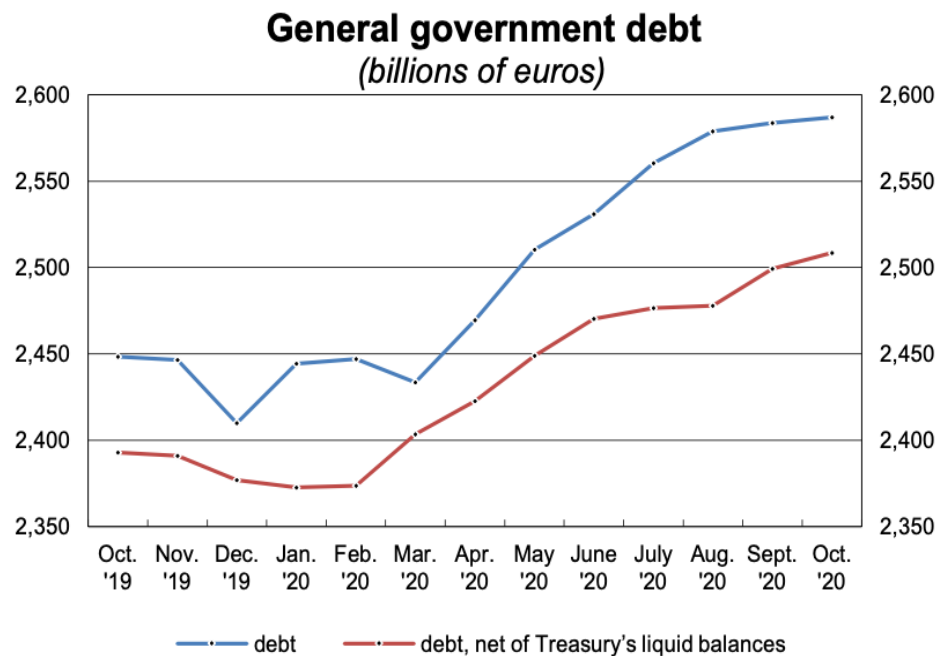
On the demand side, the government introduced the blocking of layoffs, which has been extended until March 2021, and removed the conditions of application to the Redundancy Fund (*CIG*). Moreover, the government established the *Reddito di Emergenza* (Emergency Income) for the families in need. Also on the fiscal side, the government introduced several measures to support families and consumers: the law decree *Cura Italia*, together with the *Decreto Liquidità*, suspended a wide range of payouts. Foreclosures on salaries and pensions have been suspended until 31 August 2020. In chronological order the last one is *Italia Cashback*, plan that encourages the use

of electronic payment system, providing for a progressive reimbursement according to the expenditure made.

The aforementioned measures have strongly increased the ratio Debt/GDP, because of the increase in the stock of public debt and the decrease in GDP, and according to the forecasts of the European Commission, it will raise by more than 17%, going from 131% to more or less 160%.

1.2.1 The Public Debt and PEPP

The public debt of a State represents the consistency of gross financial liabilities, recorded at nominal value, relating to the sector of public Administration (central Administrations, local Authorities and public social security institutions). In Italy, a narrower definition of debt, but often used in the financial field, considers government bonds only, that represent about 84% of the entire amount of public debt. At the end of September 2020, the stock of public debt amounted about 2583 billions of euros, strongly increasing (about 170 billions) since the beginning of the year, because of the pandemic crisis. The most recent estimates of the European Commission highlight a ratio Debt/GDP of Italy at 159.6% for 2020. Below there is the trend of government debt from the end of 2019 to October 2020 (blue line) and the debt, net of Treasury's liquid balances (red line).



Graph 3: Bank of Italy: “The Public Finances: Borrowing requirements and Debt”, October 2020.

The previous graph⁴ shows a large increase of the debt value between the end of 2019 and October 2020 (from 2450 billions of euros to almost 2600). This increase is the greatest among the ones registered in the last 15 years.

In fact, to find a similar increase, it is necessary to go back in time to 2009, because of the effects of the financial crisis, started from the United States, triggered by the Lehman Brothers failure.

The ratio Debt/GDP is considered one of the key indicators to evaluate the credit quality of a country. Strong increases of this ratio led in the past to a drop in investors' confidence, with a subsequent increase in interest rates on debt. However, thanks to the PEPP, Pandemic Emergency Purchasing Programme, which is an extraordinary measure of monetary policy adopted by the European Central Bank (ECB) after the economic crisis, there was not an increase in the interest rates of government bonds that, on the

⁴ Bank of Italy: “The Public Finances: Borrowing requirements and Debt”, October 2020.

contrary, decreased. This favorable trend would be attributable to the responses of the economic policy adopted by the European Union to face the economic crisis stemming from COVID-19 and to the measures of the European Commission.

1.2.2 The Sovereign Risk: probability of default from bond yields and spread

The yield offered by the State is strictly connected to the investors' perceptions according to the ability of the issuer to repay its debt (insolvency risk or probability of default). The higher the risk perceived by the investors, the higher the required return to underwrite the debt itself. Therefore, it is possible to estimate the probability of default starting from the yields (or prices) of the government bonds on the secondary market and from the ones offered during the placement phase of financial instruments.

2012 has been the year in which there has been the highest probability of default in Italy, because of a generalized increase of distrust in the markets for the sustainability of public debt in countries of South Europe (Greece, Italy, Spain and Portugal). In mid-2012, in fact, a high tension on the government bonds market has been registered and at that time the Italian probability of default, within the following ten years, increased until almost 50%. Recently, after a progressive decrease of the probability of default discounted by the financial market, because of COVID-19, it increased again in the first semester of 2020, until it decreased again thanks to the extraordinary measures adopted by ECB and EU. On 31 December 2020, there are the lowest values of probability of default registered before, confirming the effectiveness of the measures of the European Authorities.

Another measure of the *Rischio Italia* is the spread between Italian bonds and German bonds (considered risk-free). Generally, the bonds used for the computation of the spread are the ones with maturity of 10 years (spread BTP-Bund). The next graph shows the evolution of the spread BTP-Bund from March 2011.



Graph 4: Borse.it, 2 February 2021.

Between the end of 2011 and the first half of 2012, also the BTP-Bund spread reached values never registered before, with a differential of over 550 basis points. Because of the crisis linked to the spread of COVID-19, as highlighted in the previous graph, the BTP-Bund spread increased again in the first semester of 2020 and then decreased until it reached the historical minimum, as it happened between the end of 2014 and the beginning of 2015.

1.3 The European Union's Policies (SURE, Next Generation UE)

The COVID-19 pandemic has several aspects that make it different with the other crises in the past. In fact, it is a shock that hit both the demand and the supply side through different channels, enhancing the interdependencies among countries and sectors. Italy has been hardly hit by this crisis, whose effects have been cushioned by several measures of the government and the European Commission.

Also at a European level, the crisis has been handled differently from what has happened in the past. In the first place, there has been a greater coordination among the governments of the member States, that have promptly suspended the Stability and Growth pact; in the second place, the European Commission has intervened directly with different instruments, such as SURE and Next Generation UE. In the case of the SURE programme, the resources have been used for measures aimed at mitigating the unemployment risk. The Commission started to issue social bonds, hence directly finding the resources on the financial markets, to finance SURE. The Next Generation UE programme is even more significant, because it provides the massive funding of the European Union on the market through the issuing of bonds guaranteed by every member State.

Unlike SURE programme, that aims specifically to support measures of contrast to unemployment and consists of loans from the European Commission to the governments, the Next Generation UE wants to finance projects with broader purposes and consists both of loans (for Italy up to a maximum of 127 billions) and of non-repayable loans (for Italy equal to 81.4 billions).

This new approach to the crisis is largely different from what has been put in place during the financial crisis of 2008 and the subsequent crisis of the public debt of 2012, after which the European Commission strongly sustained policies aimed at fiscal austerity, meaning strict economic policy to reduce public debt.

2. An Analysis of Economic Sectors

2.1 The General Analysis of Economic Sectors according to NACE classification

The analysis of the different sectors of the national economy will proceed focusing on value added⁵ of the several branches of Italian activities, subdivided according to the NACE classification Rev.2. The database of value-added data is from Eurostat, that assembles the economic sectors into eleven groups, named with letters.

The following table shows the 21 sections of the economic activities according to NACE.

+ A	AGRICULTURE, FORESTRY AND FISHING	Detail
+ B	MINING AND QUARRYING	Detail
+ C	MANUFACTURING	Detail
+ D	ELECTRICITY, GAS, STEAM AND AIR CONDITIONING SUPPLY	Detail
+ E	WATER SUPPLY; SEWERAGE, WASTE MANAGEMENT AND REMEDIATION ACTIVITIES	Detail
+ F	CONSTRUCTION	Detail
+ G	WHOLESALE AND RETAIL TRADE; REPAIR OF MOTOR VEHICLES AND MOTORCYCLES	Detail
+ H	TRANSPORTATION AND STORAGE	Detail
+ I	ACCOMMODATION AND FOOD SERVICE ACTIVITIES	Detail
+ J	INFORMATION AND COMMUNICATION	Detail
+ K	FINANCIAL AND INSURANCE ACTIVITIES	Detail
+ L	REAL ESTATE ACTIVITIES	Detail
+ M	PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES	Detail
+ N	ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES	Detail
+ O	PUBLIC ADMINISTRATION AND DEFENCE; COMPULSORY SOCIAL SECURITY	Detail
+ P	EDUCATION	Detail
+ Q	HUMAN HEALTH AND SOCIAL WORK ACTIVITIES	Detail
+ R	ARTS, ENTERTAINMENT AND RECREATION	Detail
+ S	OTHER SERVICE ACTIVITIES	Detail
+ T	ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS; UNDIFFERENTIATED GOODS- AND SERVICES-PRODUCING ACTIVITIES OF HOUSEHOLDS FOR OWN USE	Detail
+ U	ACTIVITIES OF EXTRATERRITORIAL ORGANISATIONS AND BODIES	Detail

Table 2: Eurostat database.

As abovementioned, Eurostat shows value added data of the 21 NACE sections into 11 groups. In particular:

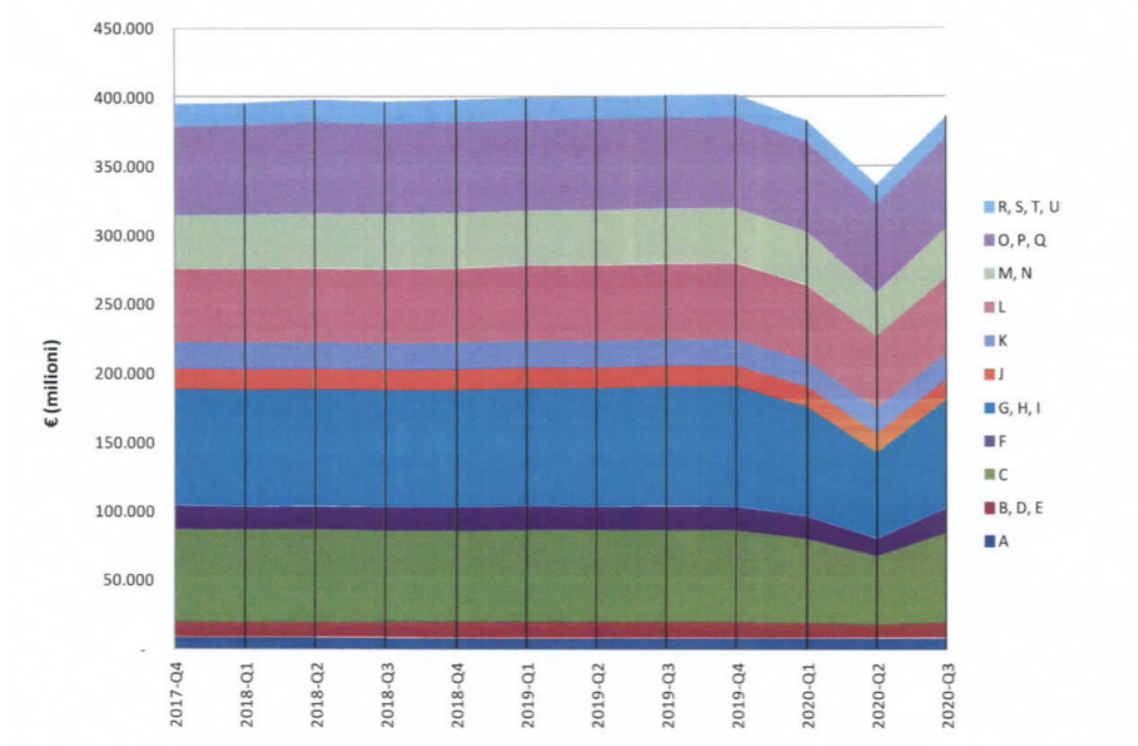
⁵ Value-added is the difference between the production value in a given period of time and the cost of the external goods and services purchased to carry out the production itself. Therefore, it is given by the difference between the revenues for the year (corrected for inventories) and the external costs (raw materials, utilities, etc.) incurred for production. Costs relating to company personnel are excluded.

Eurostat group	NACE sections	Description
Group 1	A	Agriculture, forestry and fishing
Group 2	B, D, E	Mining and other industries
Group 3	C	Manufacturing
Group 4	F	Constructions
Group 5	G, H, I	Wholesale, retail, transports and warehousing, accommodation and restaurants
Group 6	J	Information and communication services
Group 7	K	Financial and insurance activities
Group 8	L	Real estate sector
Group 9	M, N	Professional, scientific, technical and administrative activities and support services
Group 10	O, P, Q	Public administration, defense, education, health and social assistance
Group 11	R, S, T, U	Other services

Personal translation of Eurostat table.

According to the diagram below, the impact of the pandemic on national economy in absolute terms is evident. After a series of quarters in which there is a clear growth in terms of value added, already from the first quarter 2020 the pandemic started showing its effects on every economic sector, with a reduction of about 17 billions of euros of value added with respect to the fourth quarter of 2019. The negative impact intensified on the second quarter, that suffered the prolonged lockdown of the productive activities until May. In the second quarter of 2020, the reduction of value added with respect to the first quarter has been 46 billions of euros and of about 60 billions with respect to the fourth quarter of 2019.

As the diagram shows, the third quarter of 2020 has been characterized by a robust recovery of the productive activity, because of the mitigation of the spread of COVID-19. On 30 September 2020, the value added has been of 386 billions of euros, in line with the levels of the first quarter of 2020.



Graph 5: Eurostat, 2020.

As for agriculture, forestry and fishing sector, it is very volatile. It seems that the loss occurred in the first months of 2020 is not connected to the pandemic. In fact, this sector registered also an expansion phase during the second and the third quarter of 2020, unlike the other economic sectors, in which especially the second quarter has been the one of the worst economic performance. Thus, it seems Group A has not suffered the spread of COVID-19.

Group 2 (B, D, E) has been particularly hit by the pandemic, in fact the worst contractions in the value added have been registered in the second and third quarter of 2020, when the measures have been really harsh, while there has been a period of growth

in the third quarter, thanks to the slowdown of COVID-19. Despite this, the growth mentioned above hasn't been enough to recover the losses recorded during the pandemic. Manufacturing activity⁶, together with the business activity, registered the worst economic performance in the first quarter 2020. Moreover, manufacturing sector has been characterized by a colossal loss, inferior only to the one registered by the business activity, construction sector and professional activities. In spite of the strong recovery in the third quarter, value added of manufacturing activity didn't reach back the pre-pandemic levels.

The construction sector has registered the worst contraction and economic performance of all sectors in the second quarter, but it managed to fill the precedent loss.

Group 5 (G, H, I)⁷, according to Eurostat, comprises wholesale, retail and warehousing activities. These activities suffered, because of the pandemic, the greatest damage in economic terms, registering in the first two quarters of 2020 enormous reductions of value added, followed by a contained growth.

The information and communication services, group NACE J, is the only sector that, in the third quarter of 2020, registered an expansion of value added, reaching and even overcoming the value registered both in the third and fourth quarter of 2019.

The financial and insurance sector, instead, was in a recession even before the beginning of the pandemic; however, despite the outbreak of the health and economic crisis, this sector contained the losses, that resulted inferior with respect to most of the other economic sectors. In fact, there has been a consistent loss of value added only in the second quarter of 2020, that joined the already existing negative trend.

The real estate sector registered a constant growth, that has been interrupted by the COVID-19 outbreak. Even though the measures introduced by the government have been arduous, this sector managed to contain the losses.

⁶ See section 2.2

⁷ See section 2.3

The NACE sections M and N particularly suffered the negative effects of the pandemic. In fact, after a long period of stability in terms of value added, it recorded one of the worst economic performances, after construction and business sectors.

Following the group of agriculture, forestry and fishing, the public administration, defense, education, health and social assistance sector has been the one that suffered less the effects of the pandemic. Indeed, the negative impact suffered in the first quarter of 2020 has been fully reabsorbed.

The last group, according to Eurostat, is the one of the other services: it has been particularly hit by the pandemic both in the first and the second quarter of the year.

SETTORI DI ATTIVITÀ ECONOMICA MACROSETTORI E CLASSI DI ADDETTI	Diminuirà più del 20%	Diminuirà meno del 20%	Non ci sarà variazione	Aumenterà meno del 10%	Aumenterà più del 10%	Non sa	Diminuirà più del 20%	Diminuirà meno del 20%	Non ci sarà variazione	Aumenterà meno del 10%	Aumenterà più del 10%	Non sa
	Valori assoluti						Valori percentuali					
SETTORI DI ATTIVITÀ ECONOMICA												
B - Estrazione di minerali da cave e miniere	194	73	297	11	51	457	17.9	6.8	27.4	1.0	4.7	42.2
C - Attività manifatturiere	39,322	11,936	45,506	5,768	7,726	72,320	21.5	6.5	24.9	3.2	4.2	39.6
D - Fornitura di energia elettrica, gas, vapore e aria condizionata	74	60	738	112	33	506	4.9	3.9	48.5	7.3	2.2	33.2
E - Fornitura di acqua; reti fognarie, attività di gestione dei rifiuti e risanamento	657	290	1,654	324	455	2,050	12.1	5.3	30.5	6.0	8.4	37.8
Industria in senso stretto	40,248	12,359	48,196	6,215	8,265	75,333	21.1	6.5	25.3	3.3	4.3	39.5
F - Costruzioni	17,529	7,230	26,164	2,633	3,230	51,440	16.2	6.7	24.2	2.4	3.0	47.5
Costruzioni	17,529	7,230	26,164	2,633	3,230	51,440	16.2	6.7	24.2	2.4	3.0	47.5
INDUSTRIA	57,777	19,589	74,360	8,847	11,494	126,773	19.3	6.6	24.9	3.0	3.8	42.4
G - Commercio all'ingrosso e al dettaglio; riparazione di autoveicoli e motocicli	52,256	17,562	57,652	7,221	8,995	103,512	21.1	7.1	23.3	2.9	3.6	41.9
H - Trasporto e magazzinaggio	7,380	2,297	9,940	1,306	1,611	17,175	18.6	5.8	25.0	3.3	4.1	43.3
I - Attività dei servizi di alloggio e di ristorazione	53,735	11,822	20,488	1,347	4,317	67,215	33.8	7.4	12.9	0.8	2.7	42.3
J - Servizi di informazione e comunicazione	3,254	1,864	9,551	1,252	1,327	8,626	12.6	7.2	36.9	4.8	5.1	33.3
K - Attività finanziaria e assicurative	1,985	1,293	4,849	784	1,068	4,201	14.0	9.1	34.2	5.5	7.5	29.6
L - Attività immobiliari	3,450	450	7,594	544	395	11,178	14.6	1.9	32.2	2.3	1.7	47.3
M - Attività professionali, scientifiche e tecniche	9,637	6,622	17,492	2,334	1,694	26,363	15.0	10.3	27.3	3.6	2.6	41.1
N - Noleggio, agenzie di viaggio, servizi di supporto alle imprese	7,792	1,925	9,747	1,444	2,126	14,812	20.6	5.1	25.8	3.8	5.6	39.1
P - Istruzione	1,546	621	1,225	394	477	2,547	22.7	9.1	18.0	5.8	7.0	37.4
Q - Sanità e assistenza sociale	6,258	1,942	6,260	1,143	2,916	10,822	21.3	6.6	21.3	3.9	9.9	36.9
R - Attività artistiche, sportive, di intrattenimento e divertimento	3,971	681	2,303	198	436	5,041	31.4	5.4	18.2	1.6	3.5	39.9
S - Altre attività di servizi	10,311	3,286	6,936	1,100	1,630	19,927	23.9	7.6	16.1	2.5	3.8	46.1
SERVIZI	161,573	50,365	154,038	19,067	26,993	291,418	23.0	7.2	21.9	2.7	3.8	41.4
TOTALE	219,350	69,955	228,398	27,915	38,487	418,191	21.9	7.0	22.8	2.8	3.8	41.7

Table 3: ISTAT, “*Situazione e prospettive delle imprese nell'emergenza sanitaria COVID-19*” of December 14th 2020, statistical appendix

Since over 40% of the companies hypothesizes the reduction in consumption, according to ISTAT⁸, there should be a significant negative impact on corporate revenue, at least until February 2021. In detail, about 46,4% of the sample of companies expects a

⁸ ISTAT, “*Situazione e prospettive delle imprese nell'emergenza sanitaria COVID-19*”, 14 December 2020.

reduction in revenue of approximately 50%. According to the survey, the service, accommodation and restaurants sectors, but also sports, artistic and entertainment activities should be the most impacted ones. In both these categories, in fact, about 47% of companies expects a reduction of revenue of 50%. As for NACE B, C, D, E, instead, 64% of the interviewed companies expects a reduction inferior to 50%.

This kind of shocks should cause a hard reduction of companies' liquidity, with possible risks on the sustainability of the business activity. Over 60% of industry and over 68% of the service companies, in fact, predict the occurrence of risks connected to the operational activity and the sustainability of companies, and also tensions on liquidity at least until June. In particular, for the activities of accommodation and restaurants, over 47% of the sample expects shocks on liquidity and over 53% foresees critical issues on the sustainability of their activity. As for arts, sports and entertainment activities, instead, over 35% of the sample predicts a reduction on the availability of liquidity, while over 48% expects continuity issues in the business activity.

In conclusion, it is evident that the challenge from COVID-19 is a race against time to avoid instability of the economy as a whole. As a consequence, the vaccine campaign that just started has a fundamental role: the more rapid it is and before the measures will be removed, with a progressive return to normality and the full economic activity.

2.1.1 A Focus on Made in Italy and Service Sector

The agro-food branch of made in Italy extends itself from the fields to the shops, guarantees billions of jobs and consists of 25% of Italian GDP.

According to an analysis by Coldiretti in Cibus Forum, the agro-food branch of made in Italy is the only sector that resisted in this pandemic emergency with 538 billions of value.

Two thirds of food exports⁹ is directed to European Union countries, in fact Italy claims a quality and biodiversity leadership that nobody has, especially in cured meats and cheeses.

Ettore Prandini, President of Coldiretti, stated “the global emergency provoked by coronavirus has brought out an awareness widespread on strategic value represented by food and on the necessary quality guarantees and security”. As the President asserts, Italy should reinvest to overcome the weaknesses in the sector and also manage to become more independent from foreign countries.

Despite this gigantic source of wealth, COVID-19 emergency cut 24 billions of Italian food consumption in 2020, because it was necessary for the government to close restaurants, but this drop hasn’t actually been compensated by food shopping, which reduced of about 10%. During the pandemic emergency, especially the lockdown, people even started “stocking up”, because they feared that supplies could reduce so much that they couldn’t find food for their families. When the measures softened, instead, the values of consumption became slightly higher, but still at very low levels. In this situation, Prandini says, it is important to intervene on made in Italy, especially the agro-food branch. The “*bonus filiera italiana*”¹⁰ has been fundamental, in fact it gave 600 billions of euros to fight the false made in Italy and to promote the real one.

It is necessary for the country to invest with a circular economy view, considering all genres of products, but focusing on export, in order to create new channels of communications to produce 100% made in Italy. It is even more important to improve delays and unblock infrastructures for the connections, thus improving the overall efficiency of the system¹¹.

In 2019, the tourism sector recorded 330 millions of jobs in a global perspective, corresponding of 10.3% of global employment.¹²

⁹ Coldiretti, “Covid: il cibo diventa la prima ricchezza del Paese, vale 538 mln”, 2 September 2020.

¹⁰ It provides restaurants that suffered a loss of turnover non-repayable loans to buy products coming from Italian supply chains made of Italian raw materials, in order to boost made in Italy.

¹¹ Coldiretti.it

¹² ILO sectoral brief, updated version May 2020.

“The immediate imperative is to assure the survival of tourism enterprises through the large-scale public support without which they will disappear before the virus does. And that support must extend to the workers concerned who would otherwise have no income or social protection”, Guy Ryder, ILO General Director. The abovementioned sector is one of the most impacted sectors, because of the restrictive measures adopted by the Government to contain the spread of the virus. It will take time for the sector to completely recover, it will surely suffer the effects of the pandemic even after the emergency will be terminated. The ILO estimates a contraction between 45% and 70%. Employees are undergoing reductions in working times and thus wages, or even losses of their jobs. The governments decided to stop all activities considered non-necessary, hence the consequence will be a long and temporary reduction of operating costs. Especially small enterprises will endure a decline, and it will take time for the investments to start again. Tourism has also its indirect influence in other sectors, such as provision of food and beverages and agriculture, which have been hit really hard. The Italian government has suspended the compulsory insurance, VAT payments and social security for March, which has been one of the worst moments of the emergency in terms of measures. It also guaranteed 600\$ per month. Thanks to the decree “*Cura Italia*”, Italy extended the Redundancy Fund (*Cassa Integrazione*) for all sectors, paying the 80% of salaries.

The tourism sector will be bearing the burden of the shocks of the pandemic for a long time but, even after the SARS epidemic in 2003 and the global financial crisis¹³, it showed a strong endurance and resistance. It will have a fundamental role for the overall world recovery, because of its direct and indirect influence in almost every sector of the economy.

¹³ World Tourism Organization (UNWTO), “Impact assessment of the COVID-19 outbreak on international tourism”, Updated assessment May 2020

2.2 An Analysis of Manufacturing Activity

Italy already started 2020 without growth, in fact it resulted in a status of stagnation. China just concluded the agreement for trade negotiations with USA when it had to deal with the consequences of Coronavirus. The first negative effects in transports, tourism and production started to show up.¹⁴

According to the table below, industrial production has been swinging in the first two months of 2020. February registered a fall of 0.5% with respect to January, not only for the measures adopted to contain the spread of COVID-19, because it was restricted in a small zone of Italy. However, there were already forecasts of a drop of GDP in the first quarter, even stronger in the second one.

INDAGINE RAPIDA CSC					
(variazioni %, salvo diversa indicazione)					
	Indice grezzo	Indice corretto per i giorni lavorativi			Ordini
	Var. % tendenziale	Grezzo*	Destagionalizzato		Var. % congiunturale
		Var. % tendenziale	Livello (2015=100)	Var. % congiunturale	
Gennaio	-5,5	-2,6 (-1)	102,9	1,9	0,2
Febbraio	-3,0	-3,7 (0)	102,4	-0,5	-0,6

Table 4: Confindustria, “L’Italia inizia anche il 2020 senza crescita. Rischi dalla Cina, ma i mercati finora reggono.”, February 2020.

¹⁴ Confindustria, “L’Italia inizia anche il 2020 senza crescita. Rischi dalla Cina, ma i mercati finora reggono.”, February 2020.

The production backed off of 3% on February and 2.6% on January with respect to the same months of 2019. The impact of the measures for the pandemic are limited in these two months on the production because of the stop of the global value chain to and from China. Thus, there has been a limited shock on the supply side because the measures abovementioned started at the end of February, whereas there has been a strong shock on the demand side already weeks before because of the stop of activities in sectors such as accommodation, restaurants and entertainment; the habits of families changed radically, and tourism started diminishing because of the concerns about a disease not yet well known. In the statistics the effects of the slowdown of the service sector don't appear on the industrial production, but they will be enormous in the following months. Even stricter measures in other countries will affect Italy, because of the commercial relationships.

Already in February, according to Confindustria, there is a strong worry that all of these drops will lead to a prolonged recession.¹⁵

In fact, following the data from April 2020¹⁶, the industrial production diminished again with a value of 9% with respect to March 2020. The impact of COVID-19 started to show its primary effects. The forecasts for the first quarter are a slump of 16.6%, the worst value in eleven years. With the decree for the containment of the pandemic, 57% of the businesses were closed and this caused the worsening of the already existing double negative shock in demand and supply. The enterprises had to disinfect, several activities were considered unnecessary and also families postponed their spending decisions. The remaining 43%, referring to pharmaceutical and food sectors, was the solely necessary business, but it had slower rhythms because of the delays in delivery, and the stop of international supply chain.

The forecasts for the following months are even worse than those abovementioned, and even ISTAT registered a drop in trust in the manufacturing activity.

¹⁵ Confindustria, *"Nelle stime di produzione industriale per il I bimestre l'effetto Covid-19 ancora modesto"*, 3 March 2020.

¹⁶ Confindustria, *"L'effetto Covid-19 affonda la produzione industriale in marzo (-16.6%) e nel primo trimestre (-5.4%)"*, 2 April 2020.

INDAGINE RAPIDA CSC					
(variazioni % produzione industriale, salvo diversa indicazione)					
	Indice grezzo	Indice corretto per i giorni lavorativi			Ordini
		Grezzo*	Destagionalizzato		
	Var. % tendenziale	Var. % tendenziale	Livello (2015=100)	Var. % congiunturale	Var. % congiunturale
Febbraio	-1,5	-4.7 (0)	102,3	-2,6	-1,9
Marzo	-32,2	-9.0 (2)	85,3	-16,6	-7,6

Table 5: Confindustria, “L’effetto Covid-19 affonda la produzione industriale in marzo (-16.6%) e nel primo trimestre (-5.4%)”, 2 April 2020.

According to the data from May 2020¹⁷, the industrial production dropped in April and March of about 50% (cumulative). It is a crash of the activities never experienced before. There has been the stop of the lockdown, with a lightening of the measures in view of summer; however, the consumers kept saving because of the crisis they were and are still experiencing after almost one year. The production in April backed off of 45.2% with respect to April 2019.

Although the negative tendential variation, the forecasts report a recovery of demand in the months of May and June, thanks to the expected slow but gradual re-openings of even the “non-essential” activities. The rhythm of the production is forecasted as double with respect to the previous months. Because of the spread of the pandemic, there has also been a stock accumulation to be sold off before the economy reaches a normal pace.

¹⁷ Confindustria, “Produzione industriale italiana in calo di oltre il 50% in marzo e aprile. Una caduta senza precedenti.”, 4 May 2020.

INDAGINE RAPIDA CSC					
(variazioni % produzione industriale, salvo diversa indicazione)					
	Indice grezzo	Indice corretto per i giorni			Ordini
		Grezzo*	Destagionalizzato		
	Var. % tendenziale	Var. % tendenziale	Livello (2015=100)	Var. % congiunturale	
Marzo	-24,2	-26,5 (2)	77,8	-25,4	-23,7
Aprile	-43,6	-45,2 (0)	57,5	-26,1	-44,6

Fonte: elaborazioni e stime CSC su dati ISTAT e Indagine Rapida.

Table 6: Confindustria, “Produzione industriale italiana in calo di oltre il 50% in marzo e aprile. Una caduta senza precedenti.”, 4 May 2020.

After the minimum reached in April and the bounce in May, there has been a slow recovery also in June and July; however, the variation, compared to the one of 2019, appears hardly negative (-13.9%) (see Table below). The negative difference between the first and the second quarter of 2020, as for the industrial production, is 8.4%. Demand keeps the negative trend, but with small improvement on the foreign side.

Although the massive positive variations, industrial production data appear lazy: it corresponds to 12% less than it was before COVID-19. According to Confindustria¹⁸, the shrink of industry explains four points of the contraction of GDP in the second quarter. Certainly, a strong impact has been from service industry, because of the stop of the freedom of movement of people and the stop of several businesses. This led to a reduction of the spending abilities of families and the phenomenon of saving for precautionary purposes, even with the support measures.

¹⁸ Confindustria, “Prosegue il recupero della produzione industriale in giugno (+2,3%) e luglio (+7.5%). Secondo trimestre in forte calo (-19.2% sul primo), atteso un rimbalzo nel terzo.”, 31 July 2020.

As for the third quarter, there were conditions for positive forecasts referring to the industrial production. Even accounting for swings, the predictions refer to an increase between 15% and 20% with respect to the second quarter. In terms of GDP, it would be three/four points of contribution from manufacturing activity.

INDAGINE RAPIDA CSC					
<i>(variazioni % produzione industriale, salvo diversa indicazione)</i>					
	Indice grezzo	Indice corretto per i giorni			Ordini
		Grezzo*	Destagionalizzato		Var. % congiunturale
	Var. % tendenziale	Var. % tendenziale	Livello (2015=100)	Var. % congiunturale	
Giugno	-16,1	-18,6 (+1)	86,3	2,3	5,4
Luglio	-13,9	-13,9 (0)	92,8	7,5	6,6

Fonte: elaborazioni e stime CSC su dati ISTAT e Indagine Rapida.

Table 7: Confindustria, *“Prosegue il recupero della produzione industriale in giugno (+2,3%) e luglio (+7.5%). Secondo trimestre in forte calo (-19.2% sul primo), atteso un rimbalzo nel terzo.”*, 31 July 2020.

After the hard drop in the first and second quarter, the third one registered a strong bounce. In August and in September there has been an increase, respectively +1.5% and +0.5%¹⁹, caused by trust by manufacturing entrepreneurs and the support of domestic demand. However, there were doubts about the following months, because of the worrying health crisis also in foreign countries.

In the third quarter, it has been registered an economic increase of 26.4%, even though the gap in September with respect to January is still negative (-4.7%). There has been a separation between the trend of the industry and the service sector: the former boosted GDP of 4 percentage points.

¹⁹ Confindustria, *“Il rimbalzo dell’attività nel terzo trimestre (+26.4%) sostiene la crescita del PIL”*, 2 October 2020.

Despite the increase in the manufacturing activity, the service sector is weak because of diminishing foreign tourism and consumer behavior.

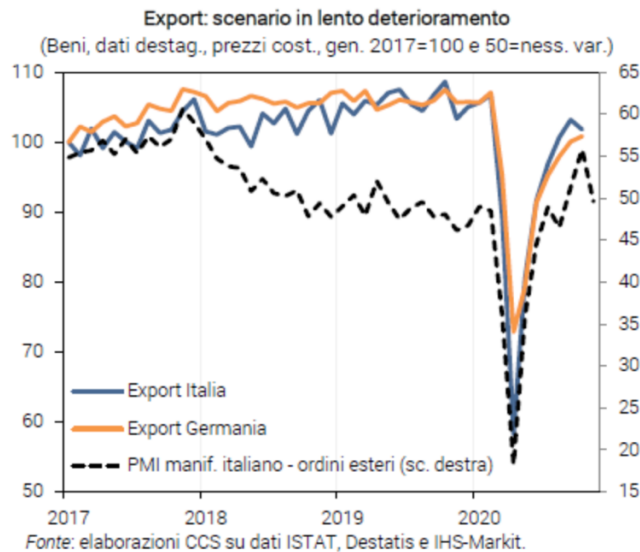
INDAGINE RAPIDA CSC					
<i>(variazioni % produzione industriale, salvo diversa indicazione)</i>					
	Indice grezzo	Indice corretto per i giorni lavorativi			Ordini
	Var. % tendenziale	Grezzo*	Destagionalizzato		Var. % congiunturale
		Var. % tendenziale	Livello (2015=100)	Var. % congiunturale	
Agosto	-5,4	-5,4 (0)	99,3	1,5	1,0
Settembre	-4,0	-1,0 (+1)	99,8	0,5	0,3

Table 8: Confindustria, *“Il rimbalzo dell’attività nel terzo trimestre (+26.4%) sostiene la crescita del PIL”*, 2 October 2020.

Although the strong bounce sustained GDP, but there has been a second wave of infection at the end of summer because of which the government found itself forced to re-introduce measures to contain the spread and effects of the pandemic. The estimates for the fourth quarter are very negative and they will affect 2021 too.

The service sector is still the most impacted one, with the manufacturing SMEs index at 39.4, whereas the industry records 51.5, which indicates a slowdown, but still positive. The production is already in negative values (-2.3% and -6.3% from pre-Covid values)²⁰. As the graph below shows, Italian export has been growing for five months, but it had the first drop in October (-1.3%). This does not regard only Italy, but also UE and extra-UE markets, as the foreign manufacturing SMEs index signals (49.6), because of the measure adopted on the global value chains.

²⁰ Confindustria, *“La pandemia chiude male il 2020 e zavorra il 2021. Servizi di nuovo in rosso, regge a fatica l’industria”*, December 2020.



Graph 6: Confindustria, *La pandemia chiude male il 2020 e zavorra il 2021. Servizi di nuovo in rosso, regge a fatica l'industria*", December 2020.

The price of Brent kept increasing in December (it was 26 in October, while in December was 51),²¹ but thanks to the global demand exceeding the supply despite the pandemic, the stock of petroleum kept decreasing.

As for the automotive sector, it already had a shock before the pandemic, in fact it registered negative values both in 2018 and 2019, because of the decarbonization plans from the European Union and the Dieselgate²² scandal in 2015. This sector, though, has been hardly impacted by the outbreak of the pandemic. According to ISTAT, the production dropped about 26.4% in annual terms. It increased gradually after the decrease in March and April and since July it shows a positive annual variation, but the second wave of infection and Brexit still stop the overall growth. The future of automotive is still in danger, because it will have to adapt to the new limits of emissions of CO₂, thus will have to become more sustainable for the environment, as the plans of EU for 2030 state.

²¹ *Id.*

²² In September 2015, US EPA found out that in more than 59000 vehicles, Volkswagen had violated the Clean Air Act, equipping them with "defeat devices" as computer software, designed to cheat on federal emission tests. EPA, "*Volkswagen Clean Air Act Civil Settlement*", 28 June 2016.

Thus, it will be important to stimulate the demand of new vehicles, and to implement policies to support supply, not neglecting the construction of building stations.

According to the graph below, as for October and November 2020, there is a decrease of industrial production of 2.3% in November with respect to October, which was positive (1.2%). These values are caused by the decumulation of stocks to satisfy the precedent orders, the drop in domestic demand and the reduction of foreign orders because of the measures adopted.

As the survey of Markit on SMEs manufacturing index shows and ISTAT justifies, there has been an increase in the average time of delivery, usually due to excessive demand, but in this health and economic crisis due to the stop of global value chains to stop the spread of the virus. In fact, there has been a slowdown in the perspectives of Italian economy, production and orders from the manufacturing entrepreneurs and from families. In view of these decrease in trust, industrial production will contribute negatively to GDP in the fourth trimester.²³

INDAGINE RAPIDA CSC					
(variazioni % produzione industriale, salvo diversa indicazione)					
	Indice grezzo	Indice corretto per i giorni lavorativi			Ordini
		Grezzo*	Destagionalizzato		
	Var. % tendenziale	Var. % tendenziale	Livello (2015=100)	Var. % congiunturale	
Ottobre	-4,7	-1,8 (-1)	100,4	1,2	-1,3
Novembre	-2,9	-5,8 (+1)	98,1	-2,3	-3,3

Table 9: Confindustria, “Le misure di contenimento del COVID-19 riportano in territorio negativo la dinamica della produzione industriale in novembre (-2.3%) e nel quarto trimestre”, 1 December 2020.

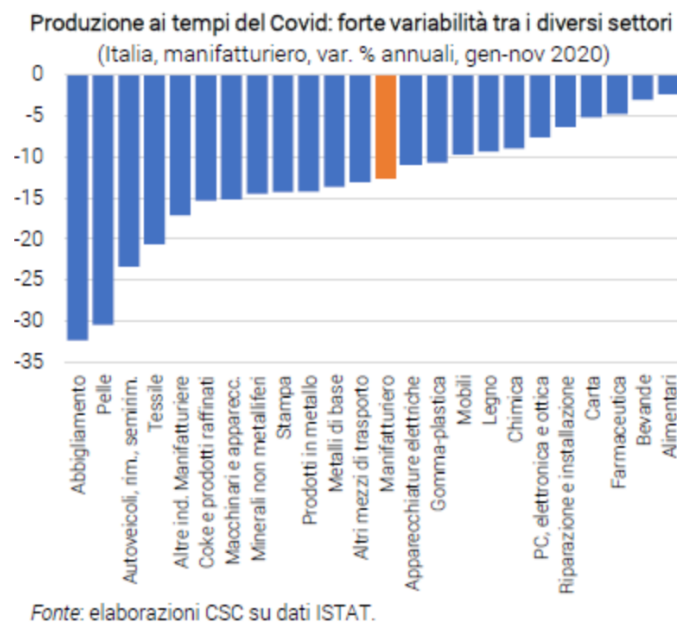
²³ Confindustria, “Le misure di contenimento del COVID-19 riportano in territorio negativo la dinamica della produzione industriale in novembre (-2.3%) e nel quarto trimestre”, 1 December 2020.

Only from mid-2021 there will be a recovery of GDP, thanks to acceleration of vaccinations and the re-start of spending. At the beginning of 2021, there is still a gap between service sector and industry: the former still dropping and the latter resisting. Forecasts expect a strong bounce in the third quarter of 2021, because the vaccines will be faster, leading to a softening of measures, thus an increase in demand and trust from consumers.

Italian export is improving in UE and extra-UE markets, according to foreign manufacturing indexes such as SMEs and trust in enterprises.

The price of Brent kept increasing in January 2021 (55 dollars per barrel), but still far from the pre-Covid values (64\$).²⁴

Since February, the manufacturing activity decreased about 13% with respect of 2019, especially between February and April, with values 50% less than pre-Covid times.



Graph 7: Confindustria, “Ripresa solo da metà 2021, se ripartono i consumi. Servizi ancora in crisi. I tassi restano moderati” January 2021.

²⁴ Confindustria, “Ripresa solo da metà 2021, se ripartono i consumi. Servizi ancora in crisi. I tassi restano moderati” January 2021.

The most disrupted manufacturing sectors have been impacted unevenly, with fashion and automotive being the worst, while food and pharmaceutical goods have had only a small loss of -5%.

According to ISTAT, 32,4% of enterprises signaled operational and sustainability risks at the end of 2020, and 37.5% asked for liquidity and credit. 7% stated they don't predict to re-open, especially small companies in the South of Italy. Seven enterprises out of 10 declared a reduction in revenue, but 25.8% is willing to implement a production expansion.

In the industry, the indebtedness worsened in every sector, also in food and pharmaceutical, but less. In 2021 the situation should be still dangerous, but at least not as critic as it has been in 2020.

According to the graph below, industrial production has been increasing about 1.0% in January over December, when there has been a drop of 0.1% over November²⁵. This decrease contributed only marginally to the decrease in GDP in the fourth quarter (-2% according to ISTAT). The gap between services and industry is still growing. The manufacturing SMEs research highlighted an acceleration in the production growth (54.4 over 52 in December). There is an improvement in the actual situation of industries, but this doesn't show an upcoming expansion phase.

²⁵ Confindustria, *"Modesta ripresa della produzione industriale a Gennaio. Nel 2020 peggiore caduta dal 2009."*, 3 February 2021.

INDAGINE RAPIDA CSC (variazioni % produzione industriale, salvo diversa indicazione)					
	Indice grezzo	Indice corretto per i giorni lavorativi			Ordini
		Grezzo*	Destagionalizzato		Var. % congiunturale
	Var. % tendenziale	Var. % tendenziale	Livello (2015=100)	Var. % congiunturale	
Dicembre 2020	1,0	-2,0 (+1)	99,7	-0,1	-0,3
Gennaio 2021	-8,5	-2,8 (-2)	100,7	+1,0	+0,7

Table 10: Confindustria, “Modesta ripresa della produzione industriale a Gennaio. Nel 2020 peggiore caduta dal 2009.”, 3 February 2021.

It is possible to see a growth in industrial production also in February 2021 (0.7%) over January, where there has been a conjunctural variation of 1.3% (see graph below). The forecasts report the manufacturing sector will be able to provide a positive contribution to GDP, while the tertiary sector is still suffering.

According to ISTAT, the confidence of manufacturing firms has increased with respect to the previous year (99,0 – last year it was 98,1). This recovery can be attributed to better reputation of production, having the stocks of January dropped, to an increase in demand greater than expected, and foreign consumption. The manufacturing SMEs has grown to 56.9²⁶, similar to 2018, as well as the production and orders indexes. All these improvements thanks to the better management of the government, which decided to intervene in a more targeted way, avoiding the penalization of the whole nation by intervening at a territorial level.

There are still worries about a third wave of spread of the virus, looking at the statistics.

²⁶ Confindustria, “Graduale recupero dell’attività industriale: al rimbalzo di gennaio (+1.3%) segue una crescita in febbraio (+0.7%)”, 3 March 2021.

INDAGINE RAPIDA CSC					
<i>(variazioni % produzione industriale, salvo diversa indicazione)</i>					
	Indice grezzo	Indice corretto per i giorni lavorativi			Ordini
		Grezzo*	Destagionalizzato		
		Var. % tendenziale	Livello (2015=100)	Var. % congiunturale	
Gennaio	-8,0	-2,3 (-2)	100,9	+1,3	+0,8
Febbraio	-0,8	0,0 (0)	101,5	+0,7	+0,4

Table 11: Confindustria, “*Graduale recupero dell’attività industriale: al rimbalzo di gennaio (+1.3%) segue una crescita in febbraio (+0.7%)*”, 3 March 2021.

In March, there has been an increase of 0.1% over February: however, this shows a retreat with respect to the previous data, since the growth of February over January has been 0.6%²⁷. Despite the restrictive measures adopted by the government and the worsening of the pandemic, Italy recorded a significant increase of the activity in the first quarter of 2021 with a large heterogeneity among the sectors. The industry has contributed positively to GDP; however, the variation of GDP is expected to be slightly negative, due to the negative impact of the service sector. The entrepreneurs show an improvement in their confidence towards the current situation, the demand in the upcoming months, and also exports. The confidence of manufacturing companies has increased of about 1.7 points with respect to February, even above the levels of the beginning of 2020. According to the Ihs-Markit investigation over the manufacturing SMEs index: in March the indicator has risen over the maximum in 21 years, showing an increase in costs, due to both the higher prices of raw materials and the delays in the supply chain.

²⁷ Confindustria, “*Sostanziale stabilizzazione della produzione in marzo (-0.1%), dopo l’aumento rilevato in febbraio (+0.6%)*.”, 2 April 2021

However, Italy is still suffering, and it will recover only after a softening of measures and a drop in the curve. To achieve such a result, it is fundamental to proceed with a fast vaccination campaign.

INDAGINE RAPIDA CSC					
(variazioni % produzione industriale, salvo diversa indicazione)					
	Indice grezzo	Indice corretto per i giorni lavorativi			Ordini
		Grezzo*	Destagionalizzato		
	Var. % tendenziale	Var. % tendenziale	Livello (2015=100)	Var. % congiunturale	Var. % congiunturale
Febbraio	-1,0	-0,4 (0)	101,8	+0,6	+0,5
Marzo	41,9	38,4 (+1)	101,7	-0,1	+0,7

Table 12: Confindustria, “Sostanziale stabilizzazione della produzione in marzo (-0.1%), dopo l’aumento rilevato in febbraio (+0.6%).”, 2 April 2021

In April, there has been a further retreat of 0.4%, especially because of the slowdown of the domestic demand due to the restrictions. In the first quarter of 2021, the increase in industrial activity seems robust, however the drop in April reset the variation gained in the second quarter.

The confidence maintains its growth and optimism, and the hope is the consequent effect in domestic demand to be strong and effective²⁸.

²⁸ Confindustria, “Marginale correzione della produzione industriale in aprile (-0.4%), dopo l’incremento rilevato a marzo (+0.4%).”, 4 May 2021.

INDAGINE RAPIDA CSC					
(variazioni % produzione industriale, salvo diversa indicazione)					
	Indice grezzo	Indice corretto per i giorni lavorativi			Ordini
		Grezzo*	Destagionalizzato		
	Var. % tendenziale	Var. % tendenziale	Livello (2015=100)	Var. % congiunturale	Var. % congiunturale
Marzo	43,1	39,4 (+1)	102,3	0,4	0,7
Aprile	74,0	73,0 (0)	101,9	-0,4	1,3

Table 13: Confindustria, “Marginale correzione della produzione industriale in aprile (-0.4%), dopo l’incremento rilevato a marzo (+0.4%).”, 4 May 2021.

In 2020 manufacturing activity suffered a huge drop in revenue (estimated -144 billions of euros, -14.5%), because of lockdown. This reflects on cash flow, which in the manufacturing sector fell from 81 to -4 billions in 2020²⁹, as the table below shows.

²⁹ Confindustria, “Debito e oneri finanziari molto pesanti nei settori di industria e servizi a causa della pandemia.”, 4 January 2021.

**Cash flow nell'economia italiana: caduta
e parziale risalita**

(Ricavi-costi*, miliardi di euro)

	2018	2019	2020	2021
C: Manifatturiero	82,0	81,0	-4,3	42,0
10: industrie alimentari	7,7	9,2	10,1	10,1
11: industria delle bevande	2,2	2,9	1,9	2,0
12: industria del tabacco	0,3	0,3	0,3	0,3
13: industrie tessili	1,9	1,6	-0,8	0,7
14: articoli di abbigliamento	2,5	2,7	-1,1	1,3
15: articoli in pelle e simili	2,6	4,0	-1,4	2,3
16: industria del legno e prodotti in legno	1,4	1,2	0,1	0,7
17: fabbricazione di carta e prodotti di carta	1,8	1,6	0,8	0,8
18: stampa e riproduz. di supporti registrati	1,3	1,5	0,4	1,0
19: coke e raffinazione del petrolio	8,4	7,9	-0,8	5,1
20: prodotti chimici	8,7	6,9	2,3	4,3
21: prodotti farmaceutici	3,7	3,2	3,2	3,2
22: articoli in gomma e materie plastiche	4,2	3,9	0,8	2,1
23: lavorazione di minerali non metalliferi	2,7	3,7	1,9	2,5
24: metallurgia	1,4	-0,3	-6,8	-2,8
25: prodotti in metallo	10,2	10,2	1,9	6,5
26: computer, prodotti di elettronica, ottica	1,2	1,2	-0,1	0,5
27: apparecchiature elettriche e non	2,0	2,0	-0,7	0,5
28: macchinari ed apparecchiature nca	8,1	9,3	-3,2	4,1
29: autoveicoli, rimorchi e semirimorchi	3,2	-0,6	-10,2	-4,0
30: altri mezzi di trasporto	-0,5	1,5	-0,5	0,3
31: fabbricazione di mobili	1,9	2,0	0,1	1,1
32: altre industrie manifatturiere	2,7	3,4	0,4	2,3
33: ripar., manut. e install. macchine e appar.	2,4	2,3	1,7	1,7
F: Costruzioni	22,1	24,2	12,0	22,2
Servizi**	158,4	162,5	32,8	96,4
G: commercio ingrosso-dettaglio, ripar. autov.	46,8	48,3	-9,4	12,0
H: trasporto e magazzinaggio	17,5	19,5	0,5	12,0
I: attività dei servizi di alloggio e di ristorazione	12,4	13,3	-10,5	5,9
J: servizi di informazione e comunicazione	20,6	20,7	18,0	18,0
L: attività immobiliari	16,6	17,2	13,9	15,3
M: attività professionali, scientifiche e tecniche	33,1	31,8	22,3	26,5
N: noleggio, agenzie viaggio, servizi a imprese	11,4	11,7	-2,1	6,8

* Acquisti di beni e servizi, costi del personale.

** Aggregato dei 7 settori indicati in tabella.

2019-2020-2021: stime CSC.

Fonte: elaborazioni Centro Studi Confindustria su dati ISTAT.

Table 14: Confindustria, “*Debito e oneri finanziari molto pesanti nei settori di industria e servizi a causa della pandemia.*”, 4 January 2021.

According to ATECO classification, the sectors result being very uneven. The overall manufacturing activity registers a drop of 4%. Picking the single activities, petroleum, fashion, metallurgy, technology, and automotive appear with negative values, being automotive (-10.2%) and metallurgy (-6.8%) the worst and most impacted ones also in 2021 with values respectively being -4% and -2.8%.

In the construction sector, the cash flow is halved, but with positive values.

The service sector is diversified, in fact for seven sectors, only three had negative values: restaurants and accommodation (-10.5%), tourism (-2.1%) and wholesale and retail trade (-9.4%).

In the pre-Covid situation the debt would have been repaid in a rapid way by the enterprises of industry with more or less two years of resources generated by enterprises. In 2020, the debt grew to a marked extent, and also interest charge. It worsened also in food and pharmaceutical, which are the less impacted industry in the pandemic, but it is recoverable in a little more than three years of cash flow. In industrial sectors the cash flow became negative and how much time it will take to recover the debt is not even computable, the situation is not sustainable, and it will require policies. The services result in an emergency indebtedness (57 billions of euros). As for constructions, the debt doubled, and it increased to 7 years of cash flow.

However, it is sure that the situation in 2021 will register an improvement with respect of 2020. Hypothesizing elasticity in costs and revenues such as in 2020, the cash flow should return positive in the overall manufacturing and in all the sectors. In the post-Covid situation, 5.4 years of cash flows would be required to repay the debt. In the service sector, the burden will be hard: 4 years, more or less the same of the construction sector.

It is necessary to implement an extension of repayment period of emergency debts incurred in 2020, to soften the financial tensions and free resources for new investments. Thus, it is important to intervene in the section 3.2, which is Liquidity, that fixed at 6 years the maturity of financing guaranteed by the State.

In a long-term perspective, it is fundamental to sustain the growth of enterprises and the re-equilibrium of their financial situation, with a diversification of sources and a greater capitalization. It should be an integrated strategy, dedicated to SMEs and mid-capitalization³⁰: it should be fiscal, with simplifications to have access to alternative financing sources and the emission of non-bank debt. As for now, the intervention of the government is not complete, especially for SMEs and midcap, which have to be reinforced more.³¹

³⁰ According to Investopedia, mid-capitalization refers to companies with a market cap, or market value, between 2 and 10 billions.

³¹ Confindustria, *“Debito e oneri finanziari molto pesanti nei settori di industria e servizi a causa della pandemia.”*, 4 January 2021.

The impact on manufacturing activity has been immediate and violent. In March and April, the months of the strict lockdown, production fell approximately 40%. It recovered fast, in fact it came back to the values of January, but there are scaring predictions for fall because the pandemic spread again with worrying numbers. The manufacturing system entered the crisis when it already suffered two years of recession. Between 2015 and 2017 it registered an expansion that in 2018 and 2019 ended, leading to a slowdown. Domestic demand limited the possibility of national production for the domestic market. Between 2017 and 2020 the variation consisted of 32 thousand less units of enterprises. There were more exits than enters, and this didn't lead to a reallocation of resources, but the enterprises exiting the market reduced the production potential leading to gaps in the economy and reduction in efficiency. Even employment has been affected by a drop of manufacturing activity, but it has been cushioned by the reduction in working hours and limited additional charges for enterprises. According to Cerved estimates, the negative balance that companies registered highlights a liquidity crisis of manufacturing activity of about 20.2 billions of euros, and it is fundamental to reach a recovery, otherwise there could be an insolvency risk.³²

2.3 An Analysis of Wholesale, Retail and Warehousing Companies

The pandemic COVID-19 had hardly negative effects on the world economy. In Italy, after several quarters of growth, albeit anemic, from the first quarter of 2020, in terms of value-added³³, the disease has begun to show its effect in every economic sector, with a reduction of about 18 billions of euros in value-added compared to the fourth quarter of previous year. Therefore, the negative impact intensified in the second quarter of 2020, which suffered the prolonged lockdown of productive activities, which lasted until May. During that quarter, in fact, the reduction in value-added has been of about 47

³² Confindustria, *"Innovazione e resilienza: i percorsi dell'industria italiana nel mondo che cambia."*, 28 November 2020.

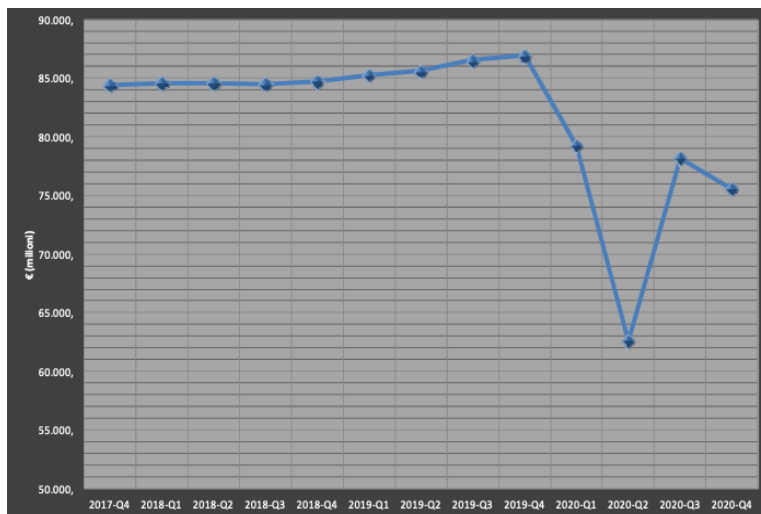
³³ Between the end of 2017 and the end of 2019, the economy grew at an average of 0.22% per quarter.

billions of euros with respect to the first analyzed period and of about 65 billions of euros with respect to the fourth quarter of 2019.

The third quarter of 2020, thanks to the attenuation of the spread of the virus, has been characterized by a robust recovery of the productive activities. On 30th September 2020, registered value-added has been equal to 386 billions of euros, whose value is similar to the one of the first quarter of the same year³⁴.

In line with the abovementioned data, the second quarter of 2020, among those analyzed, registered the worst economic performance ever, with a conjunctural variation of about -13%³⁵. This trend being confirmed even on a trend basis, with a decrease of value-added of the national economic system of more than 17% compared to the corresponding period in 2019.

The trend of value-added of Eurostat Group 5 is shown below. It comprehends the NACE sections G, H and I in absolute terms.

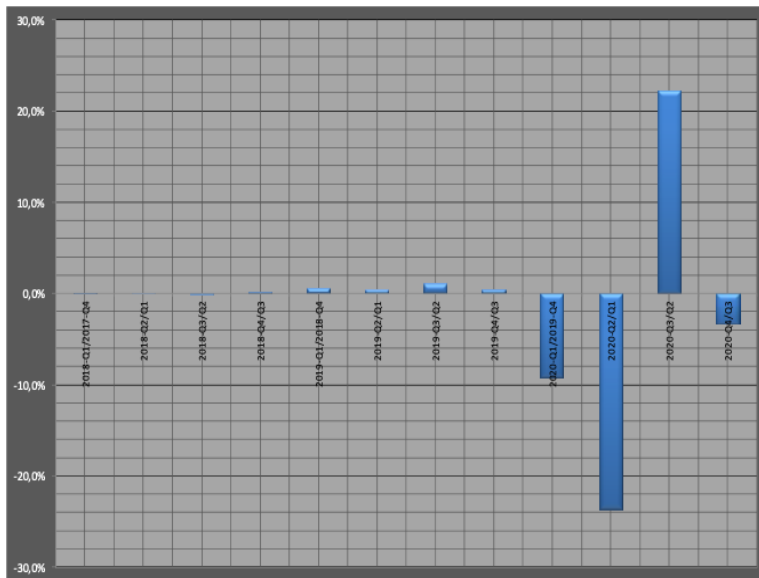


Graph 8: Internal processing of Eurostat data.

³⁴ Eurostat.

³⁵ The conjunctural variation of a time period is calculated with respect to the previous one. In describing economic trends, the so-called trend variation, which measures the economic performance of a time period with the corresponding period of the previous year, is also very often used.

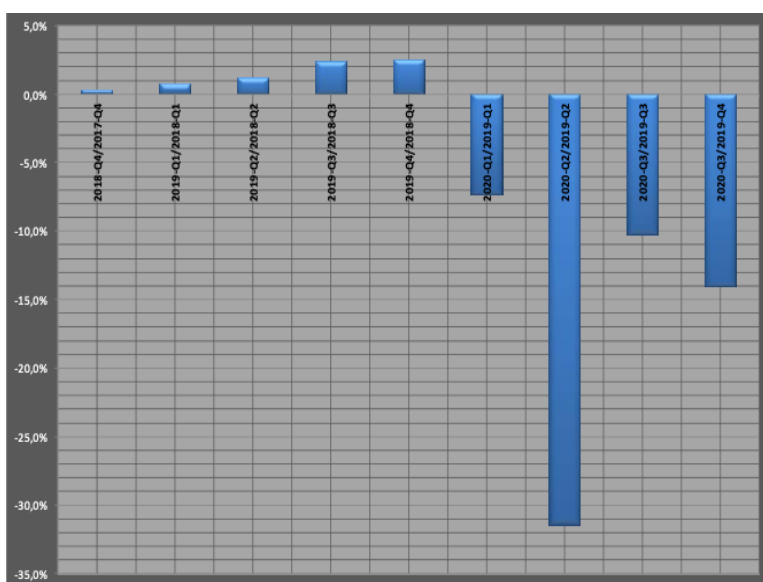
The activity of this sector is the one that suffered, because of the pandemic, the greatest damage in economic terms, registering in the first two quarters of 2020 huge reductions of value-added, followed by a growth in the third quarter, though being more contained with respect of other sectors (about 22% - figure below)³⁶



Graph 9: internal processing of Eurostat data

On a trend basis, the second quarter of 2020 is confirmed to be the worst ever, with a loss of more than 32% of value-added of the sector. Thanks to the recovery of the activities during summer, in the third quarter of 2020, the loss of value-added on a trend basis has been contained and of about 10% (figure below). Eventually, because of the fresh outbreak of the pandemic and the new restrictive measures adopted by the government, the fourth quarter of 2020 has been characterized by a new increase of losses (-14.1%).

³⁶ The fourth quarter remained substantially unchanged with respect to the previous quarter.



Graph 10: internal processing of Eurostat data

The abovementioned data confirm the negative picture of the COVID-19 impact on the trade sector, highlighted by a study from Confcommercio³⁷, already at the end of 2020. In particular, according to the Association, the effect, together with the pandemic and with the fall in consumption (estimated in 2020 of about 10.8%)³⁸, would have determined a dramatic increase in the business mortality rate, which in 2020 would have increased of about 8% exclusively because of the pandemic (the so-called excess mortality). This increase in mortality corresponds to a number of ceased activities equal to 225 thousand (among trade and services)³⁹.

³⁷ Confcommercio, “Nota sulla stima della nati-mortalità delle imprese nel 2020”, 28 December 2020

³⁸ About a loss of 120 billions of euros compared to 2019

³⁹ This produced a marked reduction in the number of active enterprises in services (-13.8% compared to 2019), while the drop in trade has been more contained (-17.1%), and fuel dispenser (-10.1%). In the services the worst businesses losses are registered for travel agencies (-21.7%), bars and restaurants (-14.4%), and transportation (-14.2%). Therefore, there is the leisure time that, among artistic activities, sports and entertainment, registered a real drop with the shutdown of one enterprise over three.

	(1) imprese attive inizio 2020 - Movimprese	(2) numero di imprese chiusure con tasso 2019	(3) numero di imprese chiusure 2020	(4) chiusure dovute alla pandemia (eccesso di mortalità) (3)-(2)
Ingresso, dettaglio, riparazione auto e moto	158.414	7.807	11.827	4.020
Ingresso	442.193	28.817	47.939	19.122
Dettaglio in esercizi non specializzati	79.855	5.340	7.489	2.149
Carburante	16.353	989	1.779	790
Dettaglio di prodotti informatici e per le telecom.	12.421	848	934	86
Dettaglio di prodotti per uso domestico	77.512	4.374	5.201	827
-- <i>Mobili per la casa</i>	29.353	1.684	2.299	615
Dettaglio di articoli culturali e ricreativi	46.049	3.557	4.215	658
Dettaglio di altri prodotti non alimentari	208.040	14.890	30.257	15.366
-- <i>Abbigliamento e calzature</i>	90.603	7.067	17.760	10.693
Ambulanti	177.317	14.424	25.754	11.330
totale commercio	1.218.154	81.045	135.394	54.348
tasso di mortalità %		6,65	11,11	
Trasporti	148.059	7.495	23.266	15.771
Alloggio	56.417	2.435	6.998	4.563
Ristorazione e bar	334.262	23.183	57.401	34.219
Attività immobiliari	254.316	9.110	9.650	539
Attività professionali, scientifiche, tecniche	194.403	13.016	35.554	22.537
Noleggio, agenzie di viaggio, servizi imprese	187.279	12.727	52.840	40.114
-- <i>Agenzie di viaggio, tour operator</i>	16.349	860	3.939	3.078
Attività artistiche, sportive, intrattenimento	68.631	3.667	23.931	20.264
-- <i>Teatri, sale concerto</i>	453	15	51	36
-- <i>Impianti sportivi, piscine</i>	4.400	199	588	389
-- <i>Palestre</i>	4.483	212	637	425
Altre attività di servizio	236.688	13.257	46.612	33.355
-- <i>Parrucchieri e trattamenti estetici</i>	144.920	6.801	18.195	11.394
-- <i>Cinema</i>	1.388	49	146	98
totale servizi	1.480.055	84.888	256.251	171.363
tasso di mortalità %		5,74	17,31	
totale commercio e servizi (terziario di mercato)	2.698.209	165.934	391.645	225.711
tasso di mortalità %		6,15	14,51	

Table 15: *Nota sulla stima della nati-mortalità delle imprese nel 2020 di Confcommercio* of 28 December 2020.

The dimension of the phenomenon of the struggling enterprises is confirmed by the number of businesses that operate in the sectors related to services and trade that requested financing assisted by public guarantee (between June and November 2020) of about 260 thousand (value similar to the excess mortality estimated by *Ufficio studi di Confcommercio*: 225 thousand of businesses – see table above. Among these, 110 thousand are the ones operating both in the trade sector (wholesale and retail), both in the transportation and warehousing, whereas 84 thousand businesses are the ones operating in the sector of accommodation and restaurants⁴⁰.

In the first months of 2021, the expected resumption of activity resulted still slowed down by the spread of the variants of the virus, that made it necessary to employ new restrictive measures. These dynamics increased the risks of permanent termination of the activities of several enterprises with possible severe consequences on employment.

⁴⁰ ISTAT (2020).

2.3.1 The Employment Impacts on Trade and Services of the COVID-19 Pandemic

Transforming the abovementioned excess of enterprises mortality, caused by COVID-19, in the number of employees at risk, it is possible to provide a preliminary estimate of the possible impacts of the virus on employment. In particular, in the trade sector, the loss of over 54 thousands of businesses can be translated in a loss of 520 thousands of jobs, hypothesizing an excess of mortality equal for every firm size classes⁴¹ and considering the average number of employees per business of about 10 units⁴². In the service sector, the number of employees at risk, estimated with the same methodology used for the trade sector, is equal to 2 millions.

To the loss of businesses, it should be added also the one related to the autonomous workers, hence those people with a VAT number operating without any type of corporate organization. Confcommercio estimates the shutdown of about 200 thousand professionals, operating in professional, scientific and technical activities, administration and services, artistic, entertainment activities and other more⁴³.

2.3.2 A Focus on E-commerce (the shift in demand from brick-and-mortar retail to e-commerce)

The virus changed the way life is led. Most parts of the day have been shifted to digital platforms, from school to training and shopping. The real revolution happened to be on consumption. In Italy, there are 2 million new online consumers, where 1.3 million

⁴¹ As defined by Ministerial Decree of the Ministry of the productive activity of 18/04/2005, thus micro enterprises, small enterprises, medium enterprises and big enterprises. The use of an average number of employees for all the firm size classes is an approximation that could provide biased estimates of employment effect.

⁴² The estimates, internally processed, multiply the excess of mortality for the average number of employees of the sector (calculated as the ratio between the total number of employees and the number of enterprises in the sector). Source of data for the employees of the sector: Istat

⁴³ Confcommercio, “*Nota sulla stima della nati-mortalità delle imprese nel 2020*”, 28 December 2020.

have been added to the total during the lockdown. It was already increasing fast, but this health emergency clearly tripled the numbers⁴⁴.

The COVID-19 pandemic accelerated the online trade growth (e-commerce), encouraging not only the big player of the sector or the specialized e-retailers⁴⁵, but also the small traders and the traditional shops⁴⁶, especially in the grocery sector, as well as the large, organized distribution, which until now has been rarely using this instrument. Even the “click and collect”⁴⁷ phenomenon grew of about 349% at May 2020, and it is probable to become a habit in the next years. According to a study of the *Osservatorio eCommerce B2C* of the *Politecnico di Milano*, although the service sector (in particular tourism, transportation and events) during 2020 halved its income, the one of goods⁴⁸ registered the highest growth ever recorded (+26%, equal to 5.5 billions), reaching about 23 billions⁴⁹. The graph below, elaborated on the basis of the data updated on 7 July 2020, confirms the substantial increase of the online product purchases.



Graph 11: La Repubblica, *Ecommerce nel 2020 prevista +26%*, 1 July 2020.⁵⁰

⁴⁴ AGI, “*La clamorosa crescita dell’e-commerce durante il lockdown*”. (Updated 7 May 2020).

⁴⁵ Businesses that operate on the retail trade in e-commerce mode.

⁴⁶ According to AGI, it is called “proximity e-commerce”, small shops have reorganized their activity to be able to exploit digital platforms for their sales.

⁴⁷ “Click and collect” refers to the online purchase of products and the subsequent collection in the physical store.

⁴⁸ With a substantial growth in the food sector.

⁴⁹ Il Sole 24 Ore, “*Il Covid accelera le vendite on-line*”, 25 November 2020.

⁵⁰ La Repubblica, “*Ecommerce nel 2020 prevista +26%*.”, 1 July 2020.

The growth of the online product purchases, however, failed to stem the overall decline of online sales, pushed downwards by the fall in services. Hence, 2020 closed for the first time with a decrease in e-commerce in Italy, at 30.6 billions (-3% on 2019).

Furthermore, during 2020, there has been an evolutionary leap of e-commerce, that augmented the penetration rate⁵¹ from 6 to about 8%⁵². It is likely to predict, once the health emergency comes to an end and once the service sector is reactivated, a real explosion of e-commerce.

Therefore, after the pandemic, the expectation of analysts should be related to a sudden increase in e-commerce sector, especially from the restart of services and tourism. However, the active enterprises in trade will have to be ready to catch the opportunity with the evolution of a new model of business that could intercept the needs of the consumer who, from his keyboard or smartphone, has access to the market for goods and services.

3. How the COVID-19 crisis will lead to a permanent change to the global economy

Since the beginning of the new year, an improvement has occurred thanks to the vaccination campaign which facilitated the reopening of at least some of all the activities that have been closed for months. The health, social and economic crisis that the entire world is facing caused a period of recession that the economy will have to bear for a long period of time. However, the upheaval offered new points of view and opportunities, which can be exploited in order to make the society and European economies more inclusive, sustainable and resistant to the possible future derangements⁵³. According to a

⁵¹ Index that measures the incidence of online sales over total consumption.

⁵² Il Sole 24 Ore, *"Il Covid accelera le vendite on-line"*, 25 November 2020.

⁵³ Il Sole 24 Ore, *"I 5 fattori di cambiamento nell'Europa della ripresa post-pandemia"*, 22 January 2021.

study from McKinsey⁵⁴, the European Union risks the loss of over 59 billions of jobs, however the pandemic provided factors of change, which could lead to a more equitable and long-term oriented growth.

The first factor is the accelerated digitization, which augmented the productivity and permitted the increase of online workers of about 90%; moreover, it favored the online purchases and the use of services of about 60%. It proved a speed in working 20-25 times greater than the one possible in pre-Covid times, according to senior executives, especially in the enhancement of data security and advanced technologies for operations. It is clear that many companies will exploit this accelerated digitization, not returning to the operating modes previously used.

The pandemic showed how vulnerable global supply chains can be, in fact, 75% of them had to face problems in production and distribution, and 73% encountered problems with suppliers. Both the aerospace and apparel industries are trying to foster the recovery by adopting more resilience in their activities, integrating the digital technologies in operations to improve productivity and to generate a sustainable growth⁵⁵. These industries implemented technologies to become digital leaders in their sectors. The reorganization of industries is an investment that guarantees a return in the sense of adjusting demand and supply according to the continuous changes in the market.

Furthermore, Europe has been pushed by the current crisis, especially in the green transition as part of the recovery and growth. The European Union encourages the members to contribute to this transition in at least 37% of their available resources, in order to decarbonize the economy. A decarbonized economy could gain 5 millions of jobs in Europe⁵⁶, however, it corresponds to a huge commitment and it requires a strong cohesion from the States. Moreover, adopting the objectives of the green transition will influence the consumers' behavior by enlarging their possibilities.

⁵⁴ “*Safeguarding Europe’s livelihood: Mitigating the employment impact of COVID-19*” by David Chinn, Julia Klier, Sebastian Stern, and Sahil Tesfu, 19 April 2020.

⁵⁵ Global Lighthouse Network of World Economic Forum.

⁵⁶ “*How the European Union could achieve net-zero emissions at net-zero cost*” by Paolo d’Aprile, Hauke Engel, Stefan Helmcke, Solveigh Hieronimus, Tomas Nauc  r, Dickon Pinner, and Godart van Gendt, 3 December 2020, McKinsey & Company.

Another factor of change, due to COVID-19, is that it emphasized the social unevenness in fields like education and health. As a response to the economic effects of the pandemic, Europe announced fiscal measures of more than 1350 billions of euros, with the goal of reducing the financial impact on people and trying to solve the problem of inequalities. It is fundamental to keep these investments in order to reach a professional development of workers' generations. Even more important is to highlight the fact that 85 millions of jobs could be at risk within 2025, though 97 millions of "professions of the future" could appear, with the appropriate division of workers, machinery and algorithms. Because of these measures, all Governments faced a budget deficit of 11000 billions in 2020; as a result, the world economies will bear the burden of public debt. Central banks started printing money again and rates of interest reached back the historical minimum; ECB and the Fed intensified Quantitative Easing, in order to purchase both corporate and government debt securities. These monetary interventions created several speculative investments, that fostered the fear of moral hazard in the future⁵⁷.

The crisis created by Covid-19 is a systemic shock that hit all the countries at the same time, together with monetary and fiscal policies adopted by the governments to face and contain the spread of the virus and its effects on the economy. As a result, most countries have adopted similar strategies, even if they did not agree on this before, helping a strong reduction of economic and financial tensions⁵⁸. Already during the financial crisis of 2008, exchange rates saw a reduction in their volatility; this happens to be the same situation as it has been in 2020, however with a further impetus, because the principal currencies' interest rates decreased towards zero, and there have been very expansive monetary policies as a consequence. Similarly, the strong deficits every country was facing in the market for public securities contributed to worry less about the huge level of previous debt, especially in Italy and

⁵⁷ Money.it, Violetta Silvestri, "*I 10 cambiamenti dell'economia post-Covid*", 30 December 2020.

⁵⁸ LaVoce.Info, "*Le conseguenze economiche del ritorno alla normalità*", by Rony Hamaui, 23 March 2021.

other countries. The central banks started purchasing government bonds to lower the spread.

Especially in Italy, Spain and France, moratoria and public guarantees have been largely used in order to appease the recessions on bank balance sheets and credit supply in the market for bank credit. Banks managed to lower credit risks and the amount of non-performing loans, thanks to the fact that the level of insolvencies did not increase.

Liquidity has been very high and spreads on high yields have reduced in the market for corporate bonds, to the extent that many developing countries managed to finance their growing debts. As for the stock market, especially the American one, continued the relay between growth and value stocks, even after a disastrous decline when the pandemic had just started.

It will take time before the entire world will be out of the crisis. As for now, the vaccination strategies and the results after the loosening of measures are demonstrating different effects in the areas. The OECD forecasts that the American growth (6.5%) will almost be double with respect to Europe (3.9%)⁵⁹, while the market will be subject to inflation risks and the huge debt that the government will have to issue. The 10-year Treasury bonds rates are already over 1.7% and the volatility of the stock market is over 40 points⁶⁰.

Most of all, the markets are concerned of the fact that the central banks have excessive public securities, creating several doubts on the monetary authorities' independence⁶¹. In recent years, central banks had to deal with not only the stability of the financial system and inflation, but also with unemployment in US, the control of the yield curve in Australia, the climate change in the entire UE and the housing prices in New Zealand. The end of this support has to come gradually; Confindustria proposed to extend the moratoria and also the duration of public guarantees on the loans granted to 15 years. Of course, it is straightforward to see that the situation is even worse in developing countries.

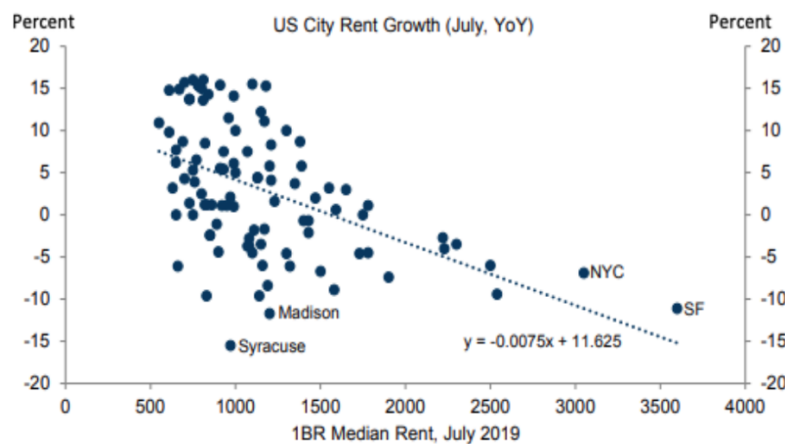
⁵⁹ *Id.*

⁶⁰ Measured by Index VIX.

⁶¹ Gained by Paul Volcker (to fight inflation, 1981) and Mario Draghi (to defend the euro, 2012).

The spread of Covid-19 altered also the migration models, provoking a shock that led to the movement of residents away from the cities, which are too crowded and expensive. This impact has been shown through the analysis of smartphone mobility data, requests for forwarding mail, waste collection data, and also through the surveys from the inhabitants of big cities where the housing prices are elevated. Firstly, the reason of this shock was the virus, afterwards it became a way to save money because rentals are cheaper, and the location is wider (supposing smart working remained). In the US, New York and San Francisco, cities that have always been expensive, lowered their rentals. However, in other cities in the Midwest the prices went up⁶², as it is shown in the graph below.

Exhibit 4: Rents in Expensive Cities and College Towns Have Fallen Sharply



Graph 12: Zumper, Goldman Sachs Global Investment Research, July 2019.

If smart working will be sustainable and will become part of the “new normality”, more and more people will leave cities towards more accessible towns.

One of the worst consequences of the pandemic is the increase of corporate debt. The non-financial industries net borrowed 3000 billions of dollars in the first half of

⁶² “5 cambiamenti epocali nell’economia post coronavirus” by David Choi, Goldman Sachs, 27 August 2020.

2020⁶³. There is a great threat of serious corporate solvency crisis and of the “zombie enterprises”, which can continue to operate only with the help of the State, hence reducing the overall productivity.

Another serious risk is to reach a “K” recovery, since the pandemic increased the income inequalities. It is important to monitor the situation in Italy, because corporations are required to make changes, both because of the current situation and because the Recovery Plan asks for it; however, there is the need of money to invest. In Germany, where the moratoria are over, there have not been increases in insolvency (this could not be the same in Italy and France, which are seriously indebted countries). Too prolonged moratoria could lead to opportunism from debtors or increase the risk of “snowball effect” in the moment in which they end. Despite this, even an early withdrawal could be risky. It is better to sustain more the enterprises instead of withdrawing too early, especially in countries like Italy, which is based on tourism⁶⁴. This kind of crisis regards sectors and hit sectors differently and unevenly: tourism has been impacted independently of the productivity of the enterprises. It is impossible to expect a radical transformation for this sector with respect to pre-Covid, hence it will be a gamble to remove public aids.

Tourism has been one of the most impacted sectors, and certainly it will be one of the last to recover. Because of the restrictions made by the government, there has been an almost complete cessation of tourism. The vaccination campaign is proceeding at a good rhythm; however, it will take time before business and traveler confidence boost again. The tourism sector always resisted somehow to the previous shocks, but being the crisis related to health, it will be more difficult to overcome it. Still thanks to vaccinations, domestic tourism restarted in some countries, it cannot entirely compensate the loss of inbound tourism⁶⁵, but it is a key factor for recovery in the short and medium term. Despite this, domestic tourism, especially in 2020, has been often subjected to the

⁶³ Bank for international settlements.

⁶⁴ Corriere, “*L’economia dopo il Covid non tornerà più come prima*” by Valentina Iorio, 21 March 2021.

⁶⁵ OECD, “*Rebuilding tourism for the future: COVID-19 policy responses and recovery*”, 14 December 2020.

ongoing restrictions on movement, which appeared again because of the constant new waves of the virus. The OECD estimates refer to a loss of about 80% in 2020 and no meaningful recovery is predicted into 2021. The latest UNWTO estimates are on the same track, forecasting a fall of 70% in the first eight months of 2021 and no recovery until 2023.

The tourism crisis is showing its effects on a social and economic level, since tourism brings foreign exchange and provides employment. In recent years, it contributed 4.4% of GDP, 6.9% of employment, and 6.5% of global exports⁶⁶.

As abovementioned, more than 174 million jobs⁶⁷ are at risk because of COVID-19, especially in the tourism sectors, which comprises both low skilled and high skilled workers. The fact is that many of these jobs are risky because they are customer facing. The government supported these workers, and this is why the scale of job losses is not evident yet. The actual impact cannot be forecasted because of the constantly changing measures for the disastrous sanitary situation. Evidence will depend on the health and economic effect on demand and supply, especially vaccination, evolution of the pandemic and the loosening of restrictions on travel. This leads to the creation of new challenges and the need for new business models and the exploration of new markets, new destinations and a more resilient tourism model⁶⁸, with the attempt of strengthening the sector for future external shocks.

The effects will be very harmful on the economy, in fact OECD estimates a fall in GDP of about 4.2% in 2020. Hence, the governments have to cooperate at a local, national and international level in order to obtain an integrated tourism to support the recovery and respond to future shocks. In addition, they have to start to address the long-term implications of the crisis, with a broader attention towards environment, economic and

⁶⁶ World Trade Organization Working Paper, “*International trade in travel and tourism services: economic impact and policy responded during COVID-19 crisis*”, 26 August 2020

⁶⁷ WTTC Press Release, “*174 million Travel and Tourism jobs could be lost due to COVID-19 and travel restrictions*”, 29 October 2020.

⁶⁸ OECD, “*Rebuilding tourism for the future: COVID-19 policy responses and recovery*”, 14 December 2020.

social objectives⁶⁹. To avoid further uncertainty, clarity in policies is essential, through information gathering, research and data analysis, hence the communication needs to be clear and the epidemiological criteria too.

In Europe, the new anti-Covid Decree proposed the introduction of the so-called “Green Pass”, to enter or exit the states. It could also be used to join special crowded events in the future⁷⁰. It consists in a certification which proves either that the person has had Covid in the past, or it has done a tampon to show the negativity to the disease or that the person has received the full vaccination. The Green Pass is a way to foster tourism and to permit the change in people’s behavior in order to create a safe harbor to travel.

There are two possible scenarios in the economy: the first, the moderate one, in which the increase of smart working could lead to a lower need of office spaces, leading to a decreasing demand in building sector, a decrease in movement and the costs of commuting. At the same time, the increase in smart working could lead to an increase in demand of information technologies and the related jobs, and even the demand for a greater prevention of infectious diseases. If the shock persists, there will be also a contraction in demand for restaurants, travels and all the sectors that are related to sport events, live shows and large gatherings.

Furthermore, COVID-19 could have a double contrasting effect: either it could reinforce the multilateral cooperation, or it could enhance the already existing problems among States. Europe certainly aims at reaching a multilateral cooperation, which can foster change. The government and the leaders of the private sector in all Europe should contribute to reaching a new normality, by collaborating with each other.

The ECB conducted a survey in which 72 leading companies, 60% of industrials and 40% of services, answered questions about the pandemic’s effects on their business in a long-term perspective. “Long-term” refers to the new normality that the entire world will reach when the vaccinations will be over and when the economy will not be subject

⁶⁹ OECD (2020), OECD Economic Outlook, Volume 2020 Issue 2: Preliminary version, OECD Publishing, Paris, <https://doi.org/10.1787/39a88ab1-en>, 1 December 2020.

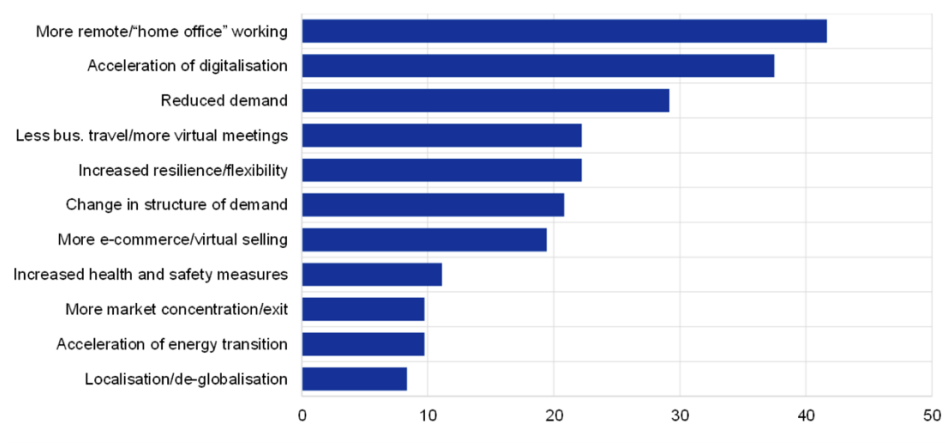
⁷⁰ Il Sole 24 Ore, “Arriva il green pass per gli spostamenti tra regioni: dalla validità alle sanzioni, ecco come funziona” by Andrea Gagliardi, 19 April 2021.

to disruptions anymore⁷¹. The first part of the survey relates to how the virus affected the business organization or the market, in the second one the respondents have been asked if they agreed with a set of statements for the new normality that the pandemic has introduced, and the third one asked about the impact on sales, employment and prices in the long-term. Among the long-term supply side effects, the most cited are the “home office” and thus digitalization. As for the consequences, many answered that they experienced reduced demand for products and services. Results are shown in the table below.

Chart A

Main long-term effects of the pandemic reported by leading companies

(percentage of respondents)



Graph 13: “*The long-term effects of the pandemic: insights from a survey of leading companies*” by Eduardo Maqui and Richard Morris, published as part of the ECB Economic Bulletin, Issue 8/2020.

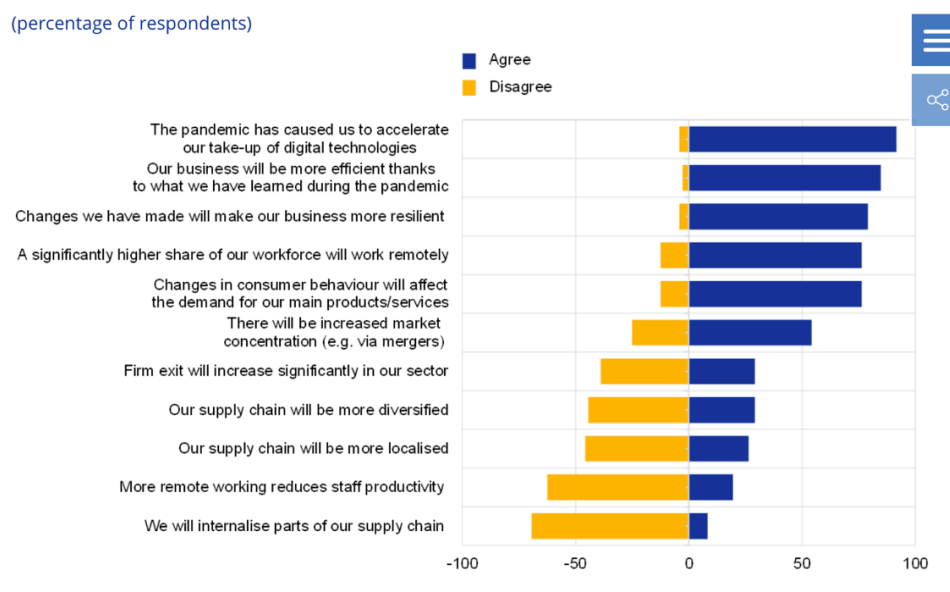
Asking about the effects that the economy will carry after the pandemic, 75% of respondents agreed on the fact that their businesses will improve in terms of efficiency and smart working, 90% of them are sure that their companies will foster the use of digital technologies as part of their conduction of business. Smart working has been also

⁷¹ “*The long-term effects of the pandemic: insights from a survey of leading companies*” by Eduardo Maqui and Richard Morris, published as part of the ECB Economic Bulletin, Issue 8/2020.

considered unproductive, but many advantages, such as reduced commuting, have been highlighted. The table below summarizes the results of the second part of the survey.

Testing narratives in relation to the long-term effects of the pandemic

(percentage of respondents)



Graph 14: “*The long-term effects of the pandemic: insights from a survey of leading companies*” by Eduardo Maqui and Richard Morris, published as part of the ECB Economic Bulletin, Issue 8/2020.

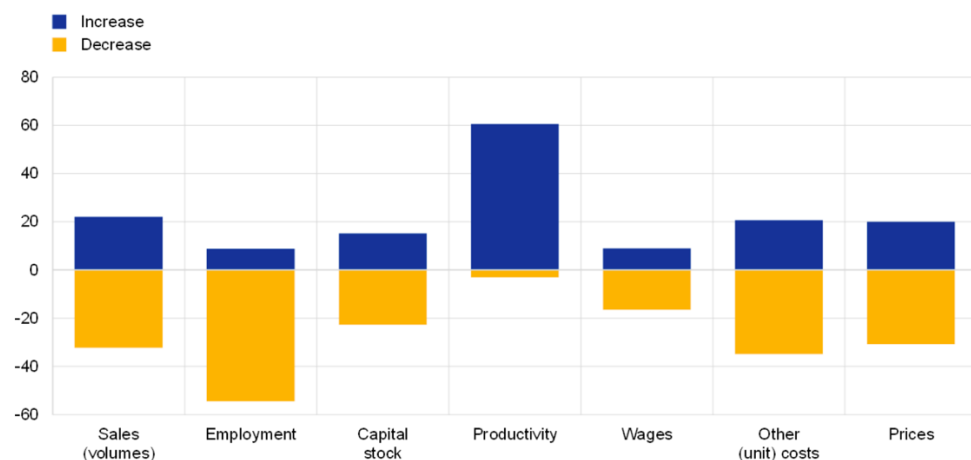
According to the respondents, the pandemic will have a lower impact on supply chains, with respect to market concentration, which will most probably increase. Consumer behavior is more likely to change because of the effect on demand. The most shared opinion is that Covid-19 will have a negative impact on employment⁷² (55%); on the contrary, it will have a positive impact on productivity in the long-term (60%). This reflects the reorganization of businesses, which had to adapt to the continuously changing restrictions. Eventually, as for sales and prices, the majority of respondents did not mention any long-term effect⁷³. According to the abovementioned impact on aggregates, the table below summarizes all the findings.

⁷² See Section 2.3.1

⁷³ “*The long-term effects of the pandemic: insights from a survey of leading companies*” by Eduardo Maqui and Richard Morris, published as part of the ECB Economic Bulletin, Issue 8/2020.

How respondents saw the long-term effect of the pandemic on business aggregates

(percentage of respondents)



Graph 15: “*The long-term effects of the pandemic: insights from a survey of leading companies*” by Eduardo Maqui and Richard Morris, published as part of the ECB Economic Bulletin, Issue 8/2020.

Conclusion

Every continent has been affected by the pandemic; Italy has been one of the first ones at the beginning of 2020. This had an enormous effect on the economy of the country, leading to a robust reduction of the economic activity, which was already poised. It is impossible to compare this crisis to the financial crisis of 2008, which started in the United States and led to an effect on demand of goods and services; this crisis had a negative effect both on demand, because of the limitations on the freedom of movement, and supply, because of the stop of the production activities. In addition, the transmission channels appear highly complex.

To contain the impact on the supply side, the government tried to protect the liquidity of the enterprises with the mobilization of 120 billions of euros through the *Decreto Liquidità*, with the elimination of IRAP balance and the availability of financial

guarantees, through the SACE and the Guarantee Fund for SMEs. On the demand side, layoffs have been blocked until March 2021, and the *Reddito di Emergenza* (Emergency Income) and the *Cura Italia* have been introduced especially for the numerous families in difficulty. This helped the increase in the ratio Debt/GDP, essential to evaluate the credit quality of the country. Furthermore, the European Central Bank adopted an extraordinary measure, the Pandemic Emergency Purchasing Programme in order to decrease the interest rates of the government bonds and to lower the values of probability of default, through the purchase of private and public sector assets.

The governments of all countries have cooperated in order to face the risks of the health and economic crisis due to COVID-19: the SURE and Next Generation EU are the proof. The former aims at mitigating the unemployment risk, whereas the latter provides funding on the market through the issuing of bonds guaranteed by every member State.

As for the agro-food branch of made in Italy, COVID-19 cut over 24 billions of Italian food consumption in 2020, also due to the missing compensation by food shopping and the continuously increasing “stocking up” by the families.

As for tourism, it had the worst impact among the sectors, however facing the pandemic with endurance and resistance. In fact, because of its direct and indirect influence in every sector of the economy, its recovery will accelerate the overall restart.

The manufacturing activity suffered the impact of the pandemic, also because it already went through two years of recession. In March and April 2020, the production fell approximately 40%, but it recovered fast, almost reaching the pre-Covid values. However, the continuous reintroduction of restrictive measures and the worsening of the pandemic after summer led to a slowdown and a first significant drop in October. At the beginning of 2021, a gap between service sector and industry still existed, but the expectations refer to a strong bounce in the third quarter of 2021, thanks to a faster vaccination campaign and a softening of the measures by the government. The first quarter of 2021 shows an increase in the industrial activity, with an improvement in confidence and a strong optimism, that hopefully will affect domestic demand in the future.

Among the manufacturing activities, fashion and automotive have been the most impacted ones, while food and pharmaceutical goods have had only a small loss.

The wholesale, retail and warehousing companies' sector is the one that suffered the greatest damage in economic terms, with enormous reductions in value added, especially in the second quarter of 2020. Summer has contributed to a recovery of these activities, at least for some months, however the situation worsened again in fall, because of the new measures adopted by the government, and continued in the first months of 2021, due to the spread of the variants of the virus.

COVID-19 has burdened also on employment. By examining the number of employees at risk, it was possible to analyze the impact of the virus on employment. In the trade sector, the loss in business turned into a loss of over 520 thousands jobs. In the service sector, over 2 millions workers lost their job. The autonomous workers have been similarly impacted: about 200 thousands professionals had to shut down their activities.

The pandemic, however, accelerated the online trade growth, fostering trade in both the specialized companies of e-retail, and small traders, which updated their businesses in order to adapt to the current situation. A new habit is about the develop, since the phenomenon of the "click and collect" has risen to about 349% already in March 2020.

The effects of the health, economic and social crisis the entire world is facing will most probably last for a long period of time. On the contrary, it is also true that this upheaval offered new opportunities which, if exploited, can improve the cooperation among States and lead to a new evolved normality. Among the new opportunities, accelerated digitization is surely the one that increased productivity and allowed the augmented the number of online workers, leading also to a greater proportion of online purchases. The pandemic has also improved the reorganization of industries, which had to re-adapt quickly to the fast negative changes of the economy, sometimes even changing their businesses towards other sectors.

Moreover, during this crisis, Europe paid on-going attention towards a green transition as part of the future recovery.

President Mario Draghi gave a clear speech on the pandemic⁷⁴, highlighting that its support does not rest on political alchemy, but on the cooperation and the sacrifice that everyone has had to face and is still facing, on the desire for a restart and on young people who want a country capable of realizing their dreams. One sentence in particular will most probably go down in history: *“Oggi, l’unità non è un’opzione, l’unità è un dovere. Ma è un dovere guidato da ciò che son certo ci unisce tutti: l’amore per l’Italia”*⁷⁵.

⁷⁴ Rome, 17 February 2021. President Mario Draghi gave a speech to ask the Senate for trust.

⁷⁵ “Today, unity is not an option, unity is a duty. But it is a duty guided by what I am certain unites us all: love for Italy”. Il Sole 24 Ore, “*Draghi, il discorso integrale al Senato del Presidente del Consiglio*”, 17 February 2021.

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