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PROGRESS REPORT

**National independent Mission
on the assessment of the
Covid-19 crisis management
and on the anticipation of pandemic risks**

13 october 2020



OVERVIEW

The Mission will submit its final report in December 2020 [update on November 26th : the Mission will actually submit a final report in March or April 2020]. This progress report presents the work methodology, sets its first assessments and quantitative analyses out, that will be more detailed thereafter, and draws the attention of public authorities to various points.

On 25 June 2020, the President of the French Republic wished to set up an independent Mission to assess the French answer to the health crisis caused by the Covid-19 epidemic, using a three-dimensional approach: health, economic and social.

The objective pursued is to make a diagnosis of strengths and weaknesses of a warning and health crisis management mechanism in France, putting in international perspective, in order to learn lessons and recommendations for the future. Rapidity, relevance and the proportional nature of the answer have to be assessed. Such an approach implies to define and compare indicators based on the creation of an international data base, to carry out qualitative analysis of the crisis management and its consequences. It imposes to contrast each decision with the state of current scientific knowledge.

The Mission's first works which have to be further developed and detailed, assess the health impact of the pandemic by excess mortality, defined as the difference between the observed mortality and the expected one, considering the demographic structure of each country. Subject to further analyses, regarding excess mortality, France would have an intermediate position compared to its European neighbours.

The number of days spent above the threshold of 1 death of a patient with Covid-19 per million inhabitants gives another indication about the seriousness of the crisis in a given country and the impact of state interventions on the health situation. This threshold was exceeded in Austria during 34 days against 44 days in Germany, 56 days in Switzerland and 68 days in France. This threshold was exceeded during over 90 days in the United Kingdom, in Italy, in Spain and in Sweden. Regarding the United States, this threshold was exceeded during more than 180 days.

From an economic point of view, the gross domestic product (GDP) drop has got a marked heterogeneity between countries. Whereas France is in an intermediary position in terms of excessive mortality rate, its GDP drop is particularly important, similar to the one observed in Spain and in Italy. The output loss differentials between countries seem to be linked, mainly, to the intensity of lockdown measures (duration, perimeters and scope).

The sector differences do not explain much the differences of the GDP tightening between countries during the first half of 2020. The activity dropped in all the sectors and significantly more pronounced in France, Italy, Spain and the United Kingdom than in Germany and in the Northern Europe countries. One of the main explanatory factors lies in the temporality and the initial intensity of the crisis for each country.

At this stage of the Mission's works, the economic consequences management of the health crisis appears to be satisfactory. In France as in the rest of the euro area, thanks to part-time measures, employment has so far resisted in view of the impact extent on the economic activity.

Business support announcements had a similar scope compared to the other studied countries, in France being more in the form of loans and guarantees rather than grants as in Germany. However, it is difficult to decide on what will be the cost of these measures because it will depend on the use of part-time work, State's guarantees and the future of deferred charges. In addition, it appears that, at this stage, these measures could not prevent some inequalities to increase during the period.

The first assessments regarding the methods of health crisis management underline the strong commitment and the reactivity of the actors of the French health system, of the citizens and administrations facing a crisis with unprecedented scale and seriousness. They also lead to call to mind the advantage of a strong social security system.

The hospital system showed a great capacity to adapt. The personnel's important effort of adaptation and commitment will not certainly be easy to repeat in the coming months and will have to lead to a complete feedback. The Mission continues its work on the conditions of patient care in the medico-social service (Residential care homes and facilities for people with disabilities).

The Mission's initial assessments highlight obvious defects of anticipation, preparation and management.

Thus, the Mission underlines the progressive decline of the priority level granted to the pandemic prevention over the past decade, contributing to a lower preparation and vigilance to risk. The pandemic dynamic outpaced the systems of health monitoring as well as entities in charge of anticipation and deployment of countermeasures. The assessment delay was all the more detrimental that the increase of the hospitalisation number turned out to be exponential.

Mask availability suffered from doubts on their doctrine of use and from serious lacks of management.

Regarding the build-up of test capacity, it initially suffered from a large-scale deployment delay. Today a series of questions arise: the prioritisation strategy, the delay in getting back the results and their operational use regarding the pandemic control (tracing, isolation).

The crisis revealed structural weaknesses regarding governance, that the Mission intends to consider in its future work:

- struck deployment of the crisis management process in particular at the inter-ministerial level;
- complex organisation of the relations between the ministry in charge of health and agencies and bodies surrounding it;
- weakness of the administrations and agencies regarding supply and logistics;
- difficulties of relationships between regional health agencies and prefectures.

Finally, communication deserves to be further improved. The confidence was shaken at the beginning of the crisis by arguments over masks then, to a lesser extent, over tests. Changes of the official speech over their use led them to be regarded as contradictory by a part of the population. To these elements, a lack of pedagogy on the relevance of the measures, a reduced call to the citizens' responsibility and a communication which was not sufficiently oriented towards the youth were added.

At this point of the investigations, and while a rebound of the epidemic started in France as in the rest of Europe, the Mission raises concern of public authorities about the need to:

- share a clear awareness of the context (live durably with the virus) and transform communication;
- support the legitimacy of the decisions regarding health;
- clearly accept that tests are destined to break chains of transmission;
- carry out a voluntarist policy to increase vaccination coverage against seasonal influenza and prepare the implementation of an eventual vaccine against the Covid-19;
- organise information sharing between regional health authorities and health facilities in order to ensure care for all the patients;
- reassure on the safety at work and accelerate the digital deployment in the public sector;
- initiate without delay a comprehensive study over the issue of postponing care.

The Mission continues its work and will submit a final report in December 2020 [*update on November 26th : the Mission will actually submit a final report in March or April 2020*]. This report will be the answer to the demand of the World Health Organisation to have such an assessment of the crisis in each State party to the World Health Assembly.

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1. GUIDELINES OF THE MISSION'S WORKS

1.1. An interdisciplinary approach in order to draw up a structural diagnosis of the warning and crisis management measures

On 25 June 2020, the President of the French Republic wanted an independent Mission implemented for the assessment of the French answer to the health crisis caused by the Covid-19 epidemic, regarding three aspects: health, economic and social, and compared to international data.

The composition of this Mission offers a multidisciplinary perspective, gathering Professor Didier PITTET, a doctor, an epidemiologist, a specialist of infectious illnesses and prevention of the risk of infection in the university hospitals and faculty of medicine of Geneva, president of the Mission, Doctor Laurence BOONE, chief economist of the Organisation for Economic Cooperation and Development (OECD), Doctor Anne-Marie MOULIN a philosopher-physician at the national scientific research centre (CNRS), Mr. Raoul BRIET, President of the chamber at the Court of Audit and Doctor Pierre PARNEIX, a public health doctor at the Academic health centre of Bordeaux.

The objective set is to draw up a structural diagnosis of strengths and weaknesses of the current warning and crisis management measures in France, in an international perspective comparison, in order to draw out lessons learned and recommendations for the future. The investigation topics cover a wide range:

- preparation of France to a pandemic;
- crisis management by analysing both the chronology of decisions and governance or communication concerns;
- compared balance of health, economic and social impact on a panel of countries.

The Mission's conclusions will be available for world health authorities and in particular the World Health Organisation (WHO), constituting the French contribution to the 'independent and complete impartial assessment process' acknowledged by the 73rd World Assembly of Health.

This Mission is fully complementary to investigation commissions and parliamentary information missions; but also, to the work carried out by the inspection services of the State over more punctual issues which conclusions are enriching the current work.

1.2. Assessment methodology

The assessment work endeavours to assess relevance, rapidity and the proportional nature of the crisis answer. This approach implies to define and compare indicators of means and results, to benefit from qualitative analysis of crisis management and its consequences, but also to contextualise decisions, by comparing them to the scientific knowledge status of the moment.

1.2.1. Quantitative analysis of pandemic health impact indicators

This assessment tool is about the health impact of the pandemic in a number of countries, in order to assess the relevance of implemented health measures.

To that end, the Mission forms two complementary data bases:

- on the one hand, a specific base for the French situation, comparing the evolution over time and for each department and territory, metropolitan and ultramarine, of health indicators;
- on the other hand, a database aiming at comparing French results to those of a large sample group of countries. However, comparing the health impact collides with various difficulties: each country was not struck by the same initial pandemic impact; it is not at the same stage of the epidemic at the time of assessment; it does not necessarily use the same methodology to count the deaths. The available data regarding overall, secondary and attributable mortality, needs to be assessed considering these different factors.

The analysis of these databases should determine possible relations, correlations or associations in order to study the potential explanatory factors of observed health performances and compare them internationally.

1.2.2. Analysis of the relations between health and socio-economic data

It is a question of comparing 'health results' and 'social and economic costs' for each country concerned in order to identify those showing the best overall performances, and study the factors that can explain them.

The relation between socio-economic and health data is a two-way one. On one hand, it exists due to the impact of pre-existing socio-economic data on the prevalence of the virus and the observed mortality rates; on the other, due to the impact of the health crisis, and in particular the lockdown over the economy and the society. The last impact first results from the cessation of a part of the economic activity under the influence of lockdown or illness. It can be assessed regarding production, investment, trade exchanges and consumption decrease. It results in losses of income and deterioration of the labour market and increasing inequality. Beyond the rigour and duration of the lockdown, explanatory variables of the observed health and economic results such as the economy structure, geographic and demographic structure, quality of social dialogue and confidence in the institutions will be investigated. The effects of implemented economic policies to reduce the economic impacts of the health crisis will be analysed. In addition, the effects on economic and social activity of border shutdown and measures of mobility restriction between countries will be assessed.

1.2.3. Sociological analysis of crisis consequences

This analysis is based on recent literature and on the first findings of the ongoing research, as well as qualitative surveys undertaken with field actors.

A sectoral approach concerns four fields -school, health and social protection systems, workplaces- by targeting in each area privileged interlocutors who were in contact with a diverse audience: nursing staff, teachers, social workers, representatives of professional and trade-union organisations in particular.

In addition, interviews are carried out using a territorial approach in Seine-Saint-Denis (territorial observatory) in order to emphasise demands and needs of the underprivileged areas. In the second case, the representatives are mainly representatives of territorial communities, local associations and citizen collectives. This component provides an analysis of social experience within the framework of a territory combining a high mortality rate and citizen initiatives trying to overcome the weaknesses of public intervention.

This dual approach aims at understanding at best the negative consequences of health and economic measures on everyday life and to identify solidarity mechanisms that developed in innovative ways to overcome difficulties experienced by citizens. It helps to identify problems specific to some sectors or to intervention of local actors' network.

The analysis of crisis social experience addresses indirectly the issue of confidence in political and technical institutions, of communication and attentiveness from institutions, of expertise appropriation from citizens, of debates over everyday problems.

The objective is to arise real-life experiences, issues and actions related to the health crisis that politicians are unaware of or have forgotten.

These works will allow to assess all the measures of health protection, in particular those regarding the most deprived people (specific living conditions and morbidities) and also those weakened by the health crisis (self-employed and non-official workers): interventions on housing, assistance for a better nutrition (access to food markets and to school canteens), improvement of public transport and access to a system of psychological assistance (medicalisation and strengthening of existing mechanisms means, especially based on associations).

1.2.4. International comparative analysis of influenza epidemic plans

Comparing the crisis management between countries requires an assessment of their level of preparedness to the pandemic risk. Such analysis can be directly made from scientific publication on geographic areas, but also by completing such source with a specific assessment of some pandemic plans, in particular regarding influenza that appeared as the most elaborated. About ten State plans are being assessed by the Mission¹.

Furthermore, the States' action analysis raises the issue of the multilateral framework, within the scope of which they come. It is mainly the international health regulation (RSI), adopted by 196 States to prevent international spread of health threats, while limiting constraints to international traffic, and its implementation during the current pandemic: alert messages and recommendations from the WHO. The European authorities' involvement in the past months, in particular the European Commission's one will also be assessed.

1.2.5. Qualitative analysis of crisis management

To compare experiences, the Mission carries out various examinations: players of the health system, institutional bodies, researchers, representatives of the health system users,

¹ These works are based on indicators from recommendations made by the WHO or the European Centre for Disease Prevention and Control (ECDC) in assistance for drafting or reviewing of pandemic plans guides.

diplomatic network, business leaders, associations and members of the civil society, etc.² . It also offered representatives of health facilities and workers, trade-unions and territorial agencies associations to give them a written contribution on the pandemic management assessment.

These elements are completed by a review of administrative documents made available for the Mission, allowing to establish a chronology and to identify the determining factors of the decisions adopted by authorities.

Whenever possible, international examples will aim at clarifying the analysis. The Mission contacted foreign missions similar to the current one (Swedish, Dutch, Belgian, Danish, etc.) to benefit from their analysis of preparation strengths and weaknesses and the response implemented in their country. She will also have a talk with the representatives of German authorities, national and federal, as well as of their health system (Institute Robert Koch, Hospital Charity in Berlin).

The Mission will rely on scientific knowledge at the due date of the final report, highlighting evolutions and progresses that occurred in the past months.

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* *

1.3. Work schedule

The Mission's report will be given to the President of the French Republic in December 2020. At that date, the pandemic and its health and socio-economic effects will still be ongoing. Additional assessment work could be usefully carried out in 2021, mobilising other measures to deal with the current work in depth and intensify it.

² At the date of the current report, 55 examinations from 106 audited people have been carried out.

2. FIRST LESSONS FROM THE INITIATED WORK

2.1. First results of the quantitative and comparative analysis of health, economic and social impact

2.1.1. *First morbidity and mortality corrected data*

The countries' model regarding their performance in the control of the virus spread and of the seriousness of the Covid-19 pandemic is important to assess the crisis management. However, most of the time this system is based on weak measures, because they depend on policies of detection and data collection. It is therefore necessary to compare countries by means of a more robust tool. Excessive mortality is one of these indicators to compare mortality during a given week in the reporting period including the previous five years. Such indicator, including all deaths, is not influenced by diagnostic strategies or reporting incidents. However, it can be sensitive to 'confounding events' likely to interfere with the analysis, such as annual influenza epidemics. The situation of France, of the United States and of a sample group of European countries is reviewed compared to gross mortality and excessive mortality rates. Data is collected via databases available in the public domain³.

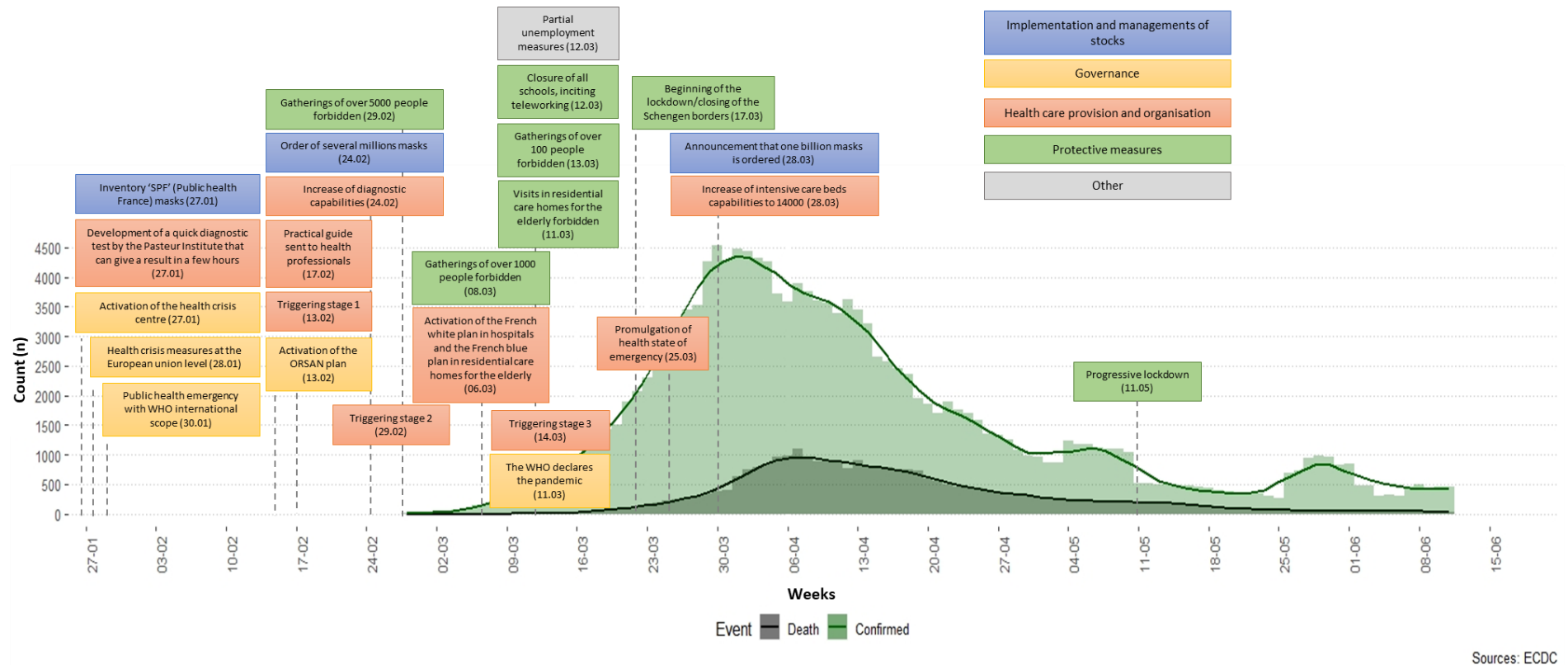
By adding the chronology of the different government interventions to the confirmed cases and deaths curves of the particular period (Graph 1a), it appears that most of the health measures were decided at the very beginning of the pandemic crisis. As a reminder of the background, in general the effect of the implemented measures is reflected on the curve of the new cases with an average delay of 2-3 weeks and on the curve of deaths with an average delay of 4-5 weeks.

By adding the chronology of the different interventions regarding economic policy and mobility evolution – representing at the same time restriction measures on mobility and the effect of health conditions on behaviour – (Graph 1b), it appears that the implementation schedule of measures supporting work and companies at large, in France and at the European level, was fast. Sectoral measures only intervene later, at the end of the lockdown, to soften the shock on the most hit sectors by measures to fight against the pandemic spread.

The Mission will focus on developing similar graphs for other European countries to compare the series of interventions in the different countries.

³ Demographic data is collected mainly from information of the World Bank and the UN for age categories. Data available regarding cases and deaths in relation with Covid-19 is collected from the ECDC. Mortality curves and confirmed cases are spread by running averages over seven days. The effect measures which are used are: non-adjusted gross mortality, categorised by age, excessive gross mortality and categorised by age group, P gross score, categorised and standardised by age groups. The excessive mortality is the result of the difference between the statistical year and an expected mortality, represented by an average of the past five years (when available) for each week of the year. The P score corrects the excessive mortality with the expected mortality to get a better comparison between different regions or countries. Age groups considered are 0-14, 15-64, 65-74, 75-84 and over 85. The P score standardisation by age is a weighted average of the P score for the different age groups depending on the proportions of these categories represented in each country.

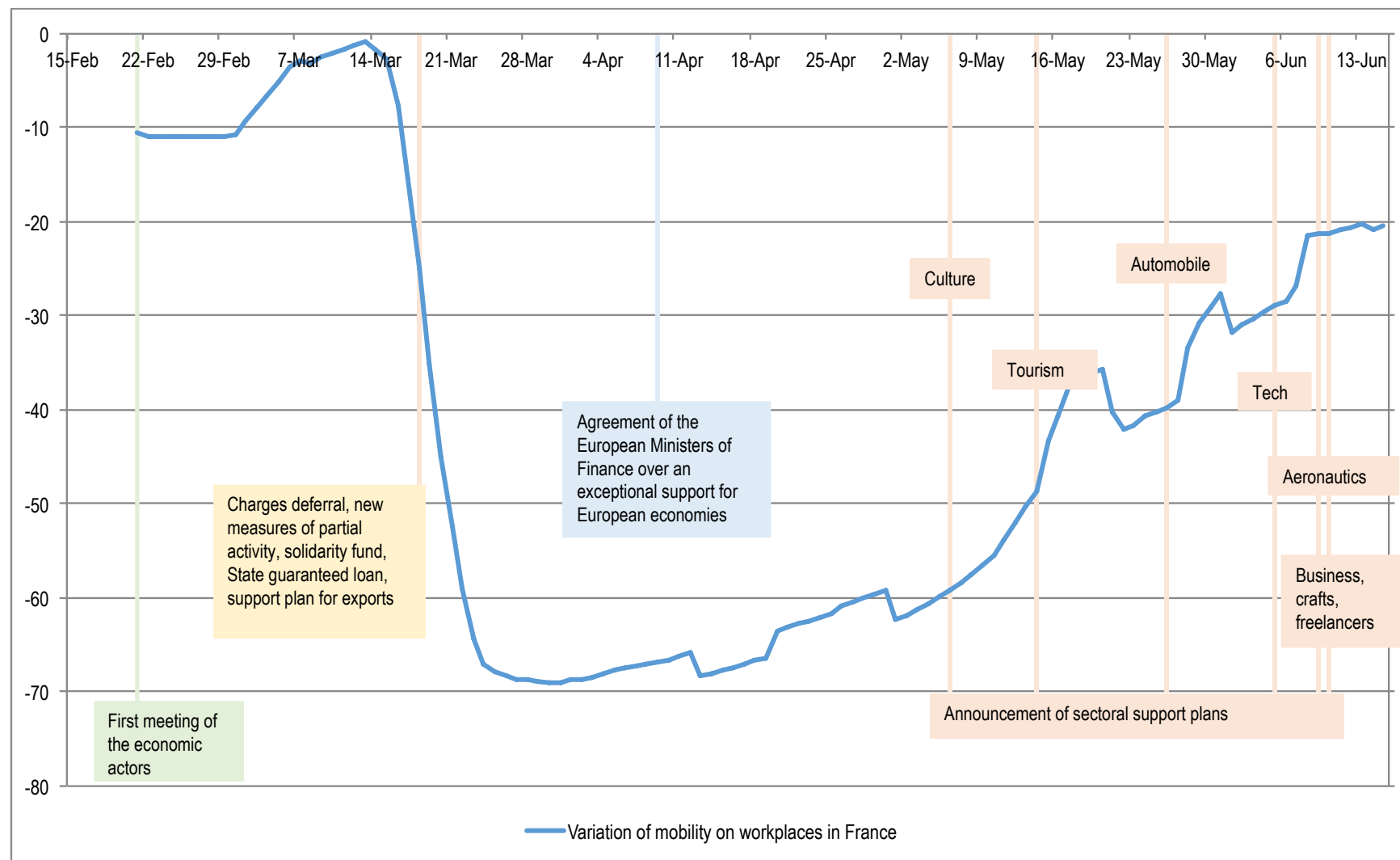
Graph 1a: Series of government interventions regarding health (France)



Source: ECDC

Note: New daily Covid-19 cases (light green), deaths linked to Covid-19 (dark green) and major interventions classified by groups of measures: implementation and management of stocks (blue), governance (orange), health care provision and organisation (red), protective measures (green), other (grey).

Graph 1b: Series of government interventions regarding economy (France)



Source: Data from Google on mobility at workplaces

Note: Variation in mobility is the difference in comparison to the median value, for a particular day, calculated over a period of five weeks between 3 January and 6 February 2020. The moving average over seven days is then calculated.

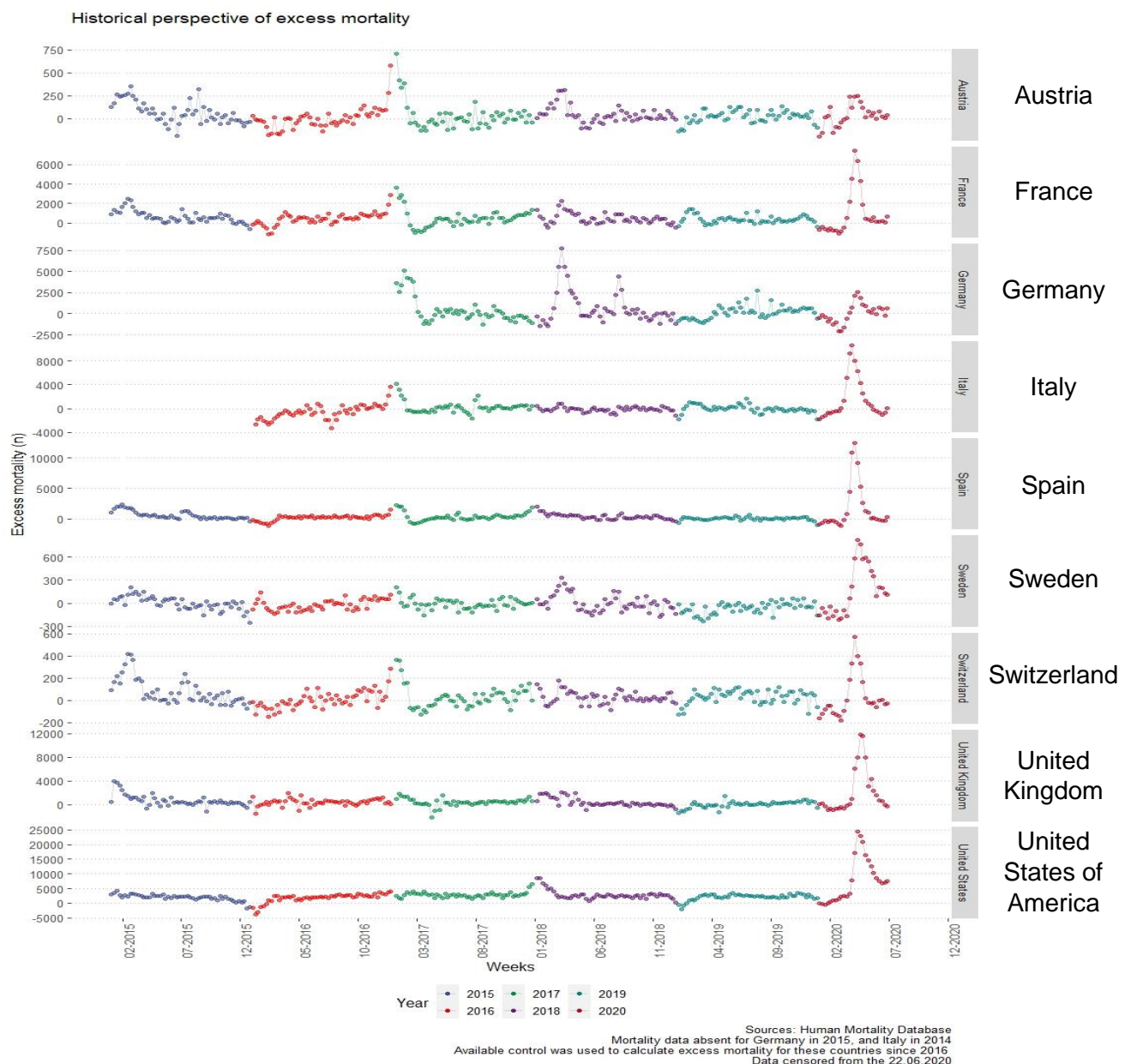
The following table summarises the number of deaths of patients with Covid-19 in different countries, as well as the excessive mortality related to the Covid-19 epidemic. There is a clear relationship between the death rate and the excessive mortality that shows declarations of Covid-19 deaths are relatively homogenous from a country to another. These rates are low in Austria, Germany and Switzerland. They are transitional in France and higher in Italy, Spain, the United Kingdom, Sweden and the United States. These analyses do not consider the differences of demographic structure.

	Covid-19 deaths	Covid-19 deaths per 100,000 inhabitants	Excessive mortality (number of deaths)	Excessive mortality per 100,000 inhabitants
Austria	799	9.02	1403	15.84
Germany	9500	11.4	7552	9.10
Switzerland	1782	20.9	1489	17.43
France	31,956	47.7	28,306	42.24
Italy	35,894	59.5	47,484	78.67
Spain	31,791	67.7	46,742	99.58
Sweden	5893	57.6	5197	50.80
The United Kingdom	42,143	63.2	57,844	86.79
The United States	206,928	62.9	190,959	58.03
Source (1 October 2020)	ECDC	ECDC	Human Mortality Database (from 1 March 2020)	Human Mortality Database (from 1 March 2020)

Note: The excessive mortality related to the Covid-19 epidemic is calculated from 1 March 2020 to give a better representation of excessive deaths linked to the pandemic and to avoid counting deaths which are not attributable to it, such as those related to annual influenza epidemics for example (see Graphs 2 and 3).

The excessive mortality is presented longitudinally year after year. Graph 2 allows to assess seasonality of mortality, mainly linked to repeated events. The peak of excessive mortality over years (each year being represented by a colour) show repeated peaks of varying amplitude each year corresponding to, most of the time, the annual influenza epidemic. Varying peaks can be seen depending on the relevant year and country. The last peaks (2020, red colour) indicate the excessive mortality linked to the Covid-19 epidemic.

Graph 2: Excessive mortality adjusted by a historical control (previous years)



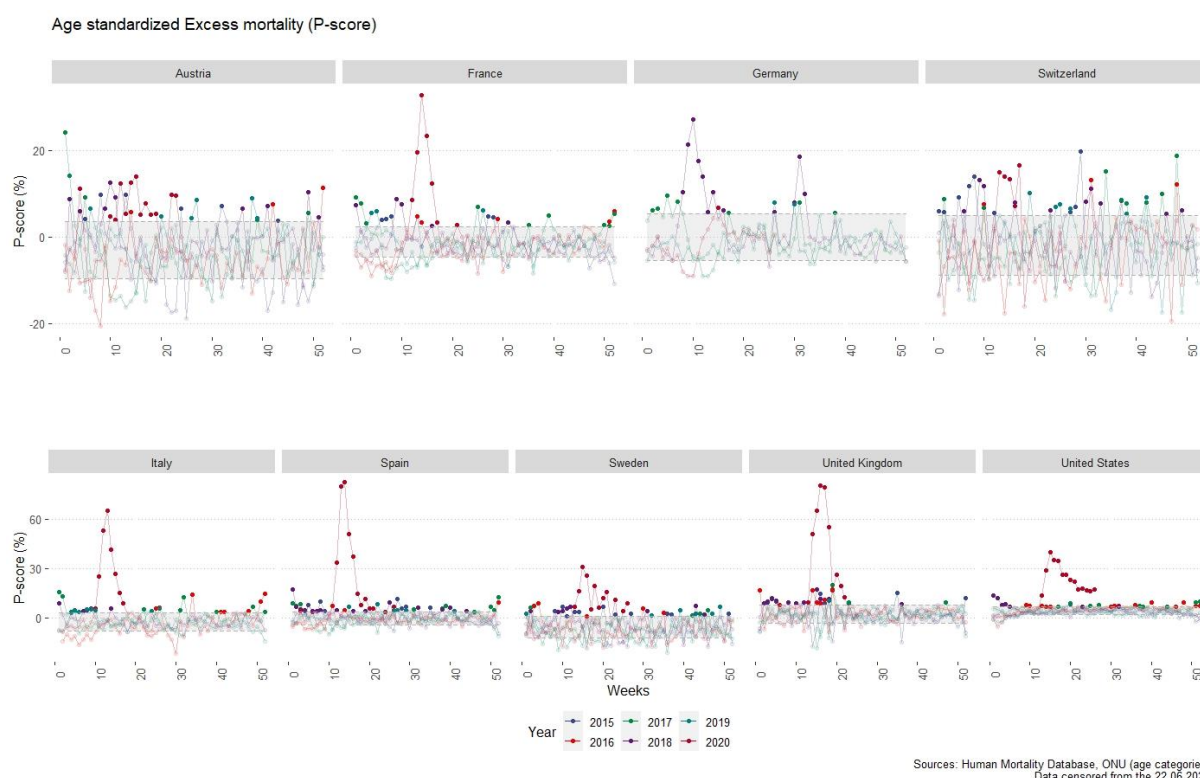
Sources: Human Mortality Database, UN

Note: Scales between countries are different on the ordinate axis to view the respective impacts of past epidemics and of the Covid-19 episode for each of them. The curves are neither represented for Germany in 2015 and 2016, nor for Italy in 2015, considering the lack of available data. The low number of years considered by the control period can increase the influence of some past events (for Germany and Italy) in the calculation of excessive mortality.

This excessive mortality measure considers seasonal variations during the past years. This correction allows regular epidemic events of the beginning of the year to be considered in order to highlight the additional effect of the Covid-19 pandemic. For example, the excessive mortality in Germany in particular over 2018 due to the influenza epidemic reduces the excessive mortality apparent rate related to the Covid-19 epidemic in the first semester of 2020.

Excessive mortality correction observed by the expected mortality allows to compare more finely the excessive mortality between different countries. Graph 3 illustrates the excessive mortality, defined as the difference between observed mortality and expected mortality, considering each country's demographic structure. As the graph illustrates it, excessive mortality linked to Covid-19 epidemic is low in Austria, in Germany and in Switzerland, transitional for France and important for Italy, Spain and the United Kingdom. For their part, Sweden and the United States are characterised by an important excessive mortality but over a longer period.

Graph 3: Assessment of the corrected excessive mortality considering the demographic structure of each country



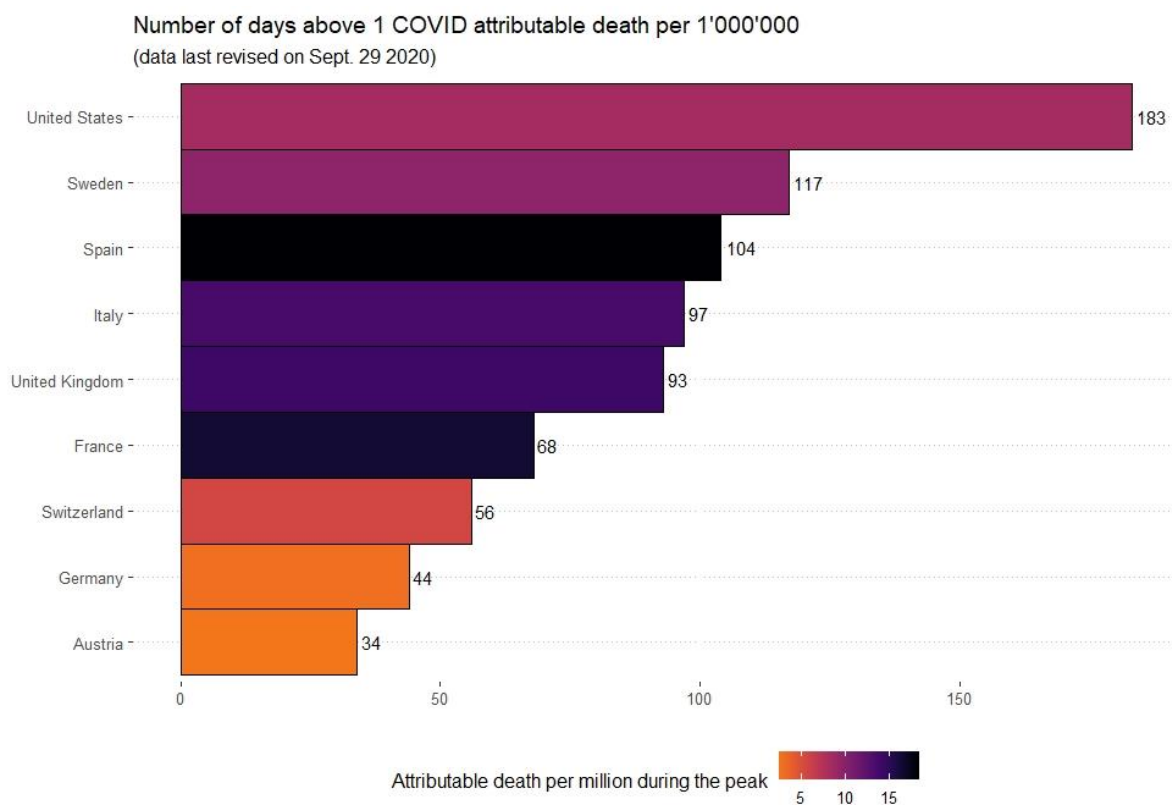
Sources: Human Mortality Database, UN

Note: On the ordinate axis, a P score of 0 means that mortality in 2020 for a specific week was similar to the average of mortalities of past years for the same week. A P score of 100 means the excessive mortality in 2020 was twice the previous one. As a reminder, excessive mortality is underestimated in Germany considering an insufficient number of comparative data and an annual influenza epidemic linked to an excessive mortality in 2018. Data is analysed on 28 June 2020.

The number of days above the threshold of 1 death of a patient infected with Covid-19 per million inhabitants in the different countries allows to come closer to the crisis seriousness in the specific country and the efficiency of implemented policies to reduce its impact. Without prejudice to other variables to consider, this index number, created by Mission's research group, gives indications on reactivity and efficiency implemented to contain the epidemic wave and protect citizens as well as hospitals.

As shown in graph 4, the threshold of 1 death of a patient infected with Covid-19 per million inhabitants was exceeded in Austria during 34 days, in Germany during 44 days, in Switzerland during 56 days, in France during 68 days, during more than 90 days in the United Kingdom, in Italy, in Spain and in Sweden. Regarding the United States it was exceeded for over 180 days.

Graph 4: Duration of the epidemic in number of days exceeding the threshold of a patient infected with Covid-19's death per million inhabitants



Source: ECDC
Subtle changes in the number of days may have occurred due to change in the reporting of recent deaths

Source: ECDC, Updated data on 29 September 2020

Note: The colour scale indicates the peak of the death number per million inhabitants illustrated in density incidence (deaths per million).

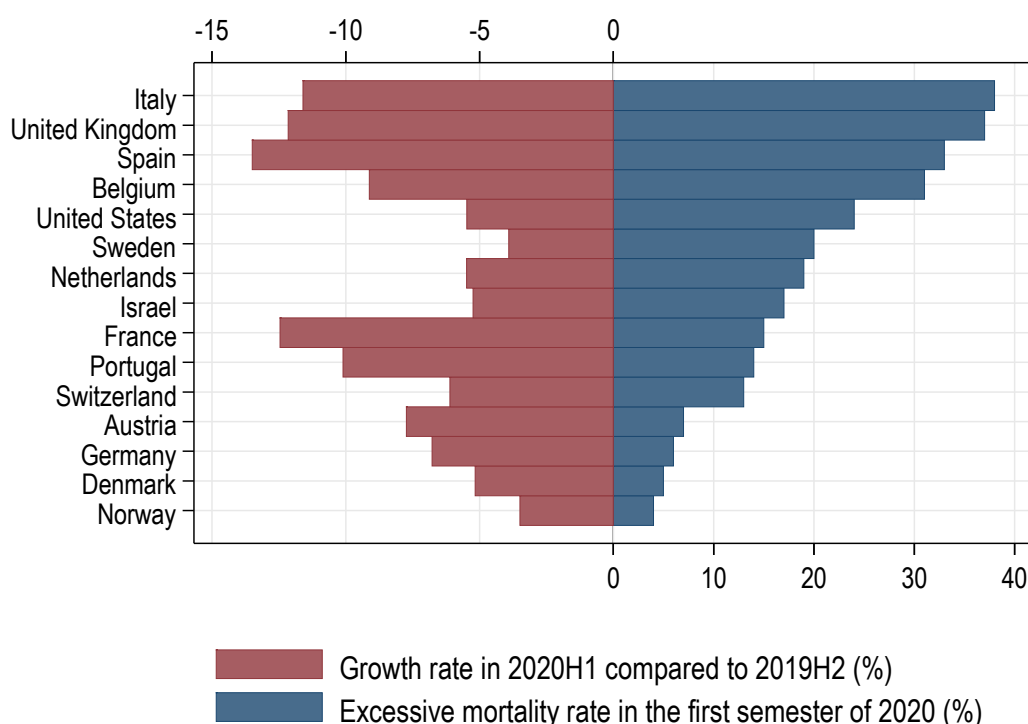
The phenomenon which is identified and illustrated in the graph is almost similar when the index used is respectively 0.5, 1.0 or 2.0 deaths per million inhabitants.

The preceding results, stopped at the end of September 2020, report at the same time the crisis seriousness in a specific country and the efficiency of implemented policies to reduce its impact on the sample of analysed countries. They show that countries which are the less affected by the health crisis are Austria, Germany and Switzerland. Italy, Spain, the United Kingdom as well as Sweden and the United States were the most affected. France has a transitional position.

2.1.2. Socio-economic impacts of the crisis from various indicators

Graph 5 is the illustration of the apparent absence of correlation between excessive mortality rate and fall in Gross Domestic Product (GDP). On the one hand, some countries share at the same time a lower excessive mortality rate and a moderate decrease in GDP (European Nordic countries, Germany). On the other hand, other countries have got, at the same time, a high excessive mortality rate and a strong decrease in GDP (Italy, Spain, the United Kingdom which experienced a serious pandemic and took rigorous and long measures of mobility restriction). At last, others show a transitional excessive mortality rate and an important decrease in GDP, like France and Portugal.

Graph 5: GDP drop and excessive mortality in the first semester of 2020



Sources: OECD national accounts, *Financial Times Coronavirus Tracker*

Note: More important reviews than ordinary may affect the GDP of the first semester of 2020.

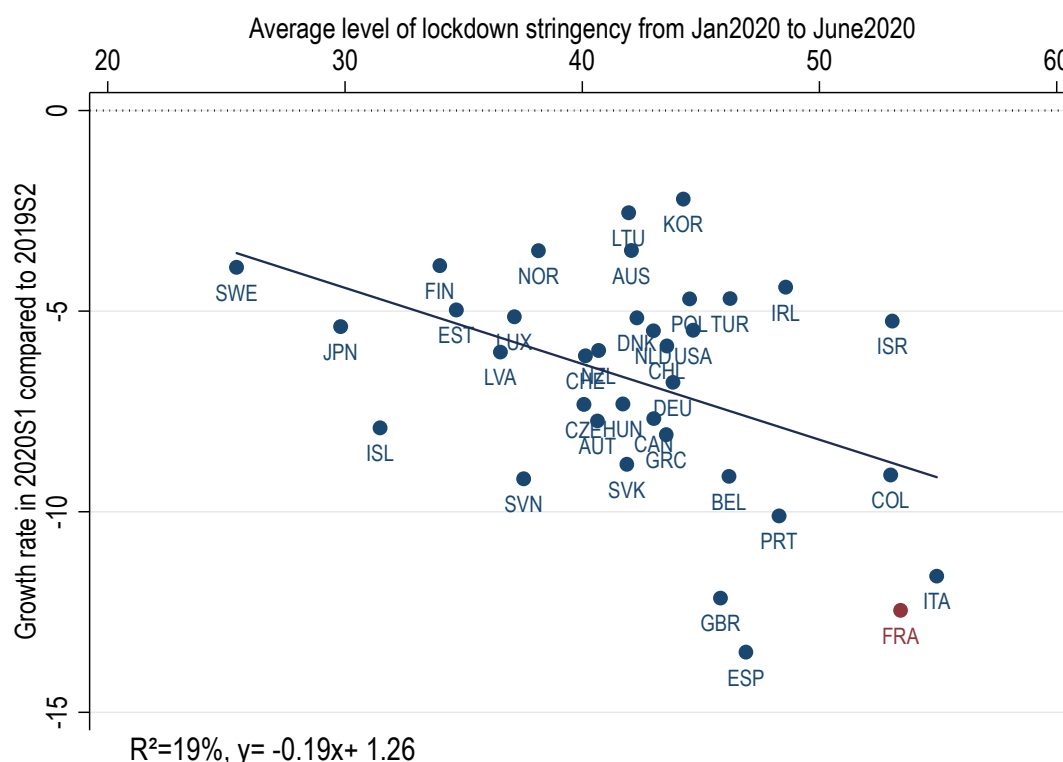
2.1.2.1. Economic consequences of the health crisis and public policies to contain it

Differences in output losses between countries seem to be mainly linked to the intensity of lockdown measures (duration, perimeter and scope).

The economic performance of OECD countries is quite variable and the difference is real between the United States and Germany on one side and other European countries on the other.

The differences of production loss between countries seem to be mainly linked to the intensity of lockdown measures (duration, perimeter and scope) imposed during the first months of the pandemic to contain the virus propagation, to a lesser extent to the sectoral specialisation of the country and, depending on countries, to the reaction of economic actors to the lockdown measures. A negative correlation between the extent of the restrictions imposed by governments, measured by Oxford 'stringency' index and the difference of GDP between the first semester of 2020 and the second semester of 2019 can be observed.

Graph 6: GDP drop and lockdown scope in the first semester of 2020



Sources: Oxford stringency index⁴, OECD national accounts

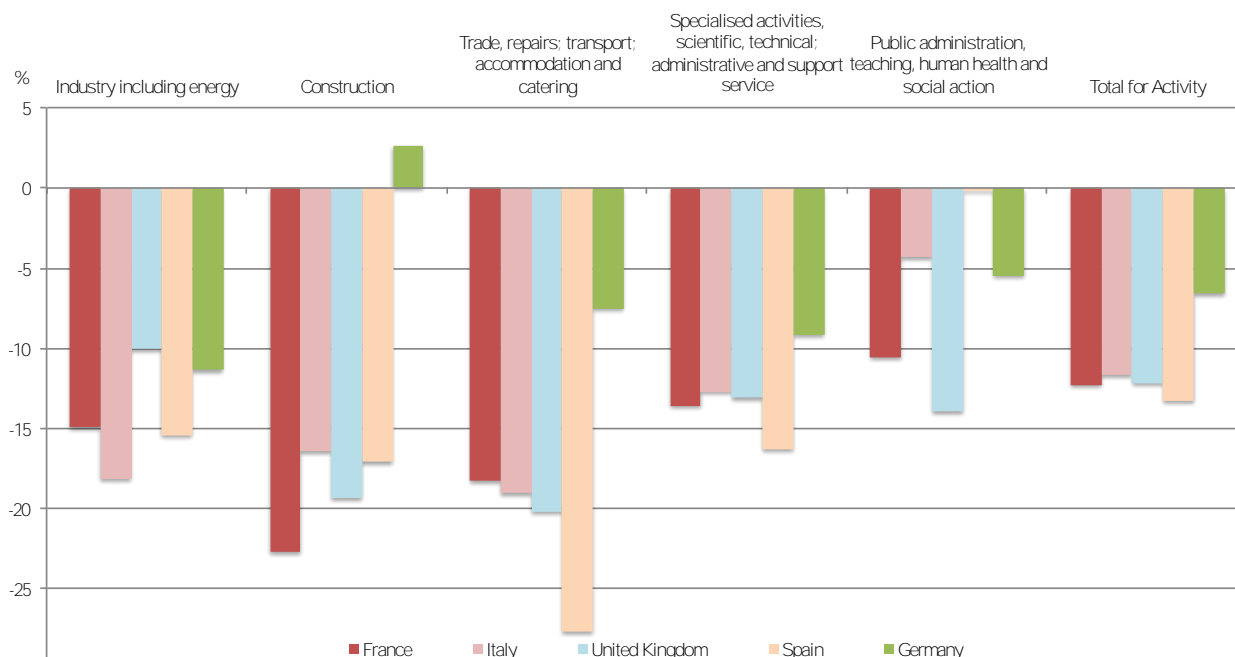
Graph 6 highlights lockdown scope, that is to say the period and the rigour of mobility restrictions measures, and GDP drop during the first semester of 2020. Lockdown scope is measured by the stringency index elaborated by Oxford University. There is a clear correlation between lockdown and GDP drop. France having implemented a lockdown with strong restrictions which were similar but not identical to the ones in Spain, Italy or the United Kingdom, is experiencing a fall in its activity of the same order as these countries. However, for these four countries, the drop of activity is pretty much more important than suggested by the lockdown intensity. This refers to other explanatory factors mentioned during examinations and in the quantitative analysis to come: decisions of the economic actors to continue their

⁴ This index defines the rigour of national measures of containment between 0 (no restriction) and 100 (maximum level of restrictions) during the first semester of 2020: <http://www.bsg.ox.ac.uk/research/research-projects/coronavirus-government-response-tracker>. The OECD also provides a detailed and consistent view with such index for a high number of countries: <https://www.oecd.org/coronavirus/country-policy-tracker/>

activity or to stop it while there was no legal obligation to stop it, behaviour regarding work and household consumption worried about the health situation etc...

Sectoral differences do not explain much the differences in GDP contraction between countries in the first semester of 2020. The activity dropped in all sectors and in a slightly more visible way in France, Italy, Spain, the United Kingdom than in Germany and in the Northern European countries. One of the main explanatory factors can be found in the schedule and the initial intensity of the health crisis for each country (Graph 7).

Graph 7: Germany stands out in almost all sectors

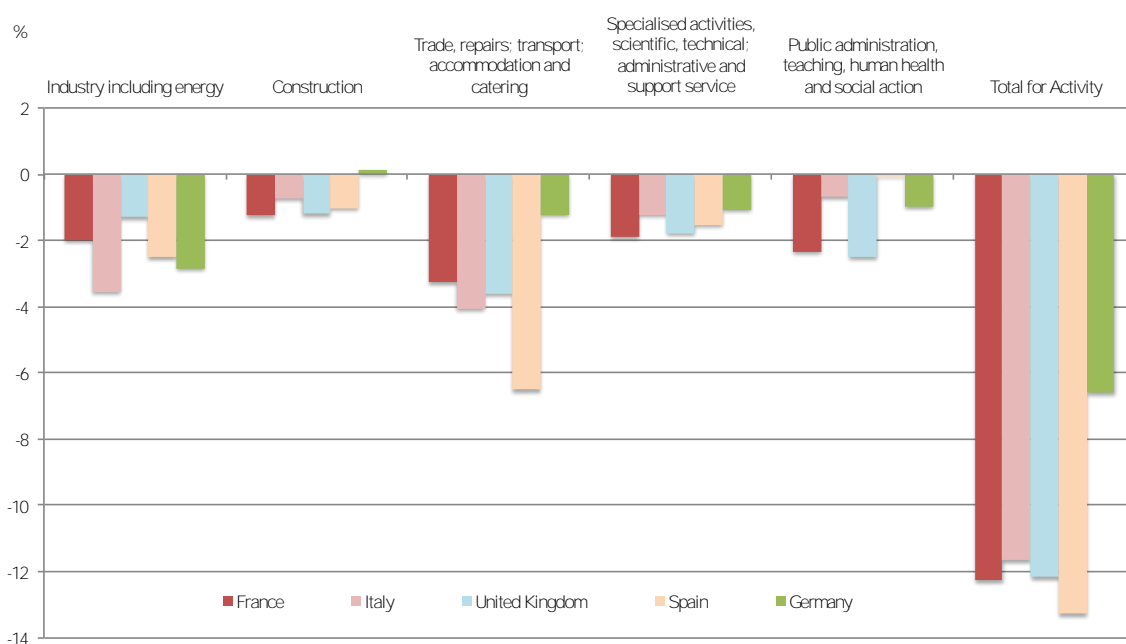


Source: OECD, National accounts first semester of 2020

Note: The absence of harmonisation through countries of methods used to calculate the contribution of non-market services, such as teaching and public healthcare, limits the scope of comparison in such sector.

The contribution of each sector for the five countries represented in graph 8 suggests the drop in activities coming under public administration and in some market activities contributed more to the drop in GDP in France and in the United Kingdom than elsewhere. Questions arise since telework could have replaced the absence of face-to-face work to a certain extent. Furthermore, the important part of industry in the added value in Germany (about 25%) and in Italy (about 20%) contributes more than elsewhere (in particular in France where the industry represents about 13% of the GDP) to the GDP contraction. In total, the contraction per sector and the contribution of each sector widely correspond to – but not entirely – the scope of the lockdown.

Graph 8: Contribution to GDP growth during the first semester of 2020



Source: OECD, National accounts first semester of 2020

Some sectors suffered from specific factors

While activity was stopped by administrative measures of lockdown in the trade or catering sector, or modified under the influence of telework in the teaching field, the activity fall in construction industry, accommodation or some health and administrative activities in France results from decisions by private actors.

Examinations thus show that continuation of construction industry and public works activity first suffered from a lack of health protection equipment, in particular at the beginning of the lockdown. Work hardly started again during the lockdown due to the hard clarification by actors of a health protocol. The break of building permit process and households and companies stopping their investments worsened the situation⁵.

Of course, in the hotel sector, the absence of demand led to the closure of some establishments.

Health activities excluding Covid-19, representing 11.2% of the GDP in 2019⁶ decreased under the influence of demand drop, of restrictions on offer, due in particular to care deprogramming, unavailability of protection material or of a trade-specific reference to protect patients and professionals, as well as communication from some professional Orders or trade unions.

2.1.2.2. Paid employment was generally protected during the lockdown

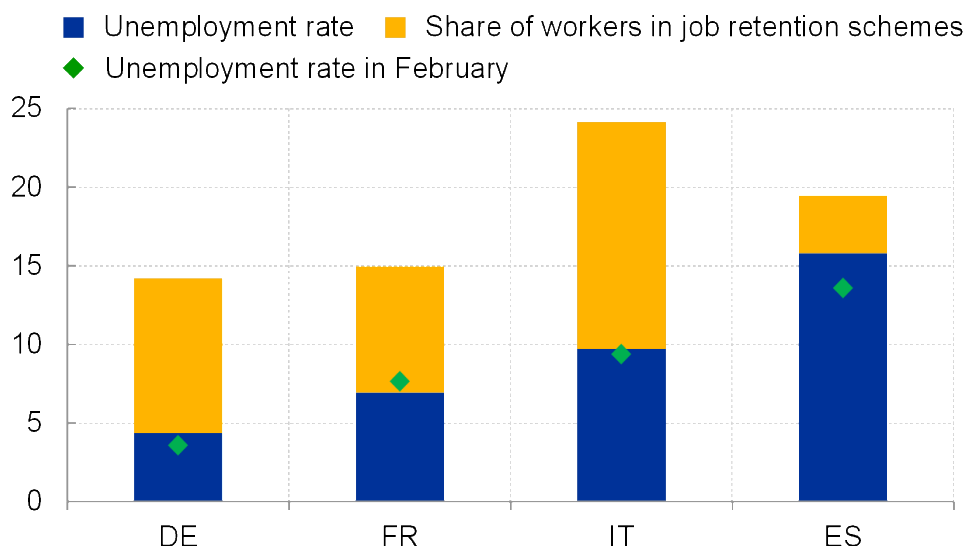
Thanks to part-time activity measures, the employment evolution has resisted well regarding the shock scope on the economic activity. During April 2020 peak, the number of part-time

⁵ The electoral municipal cycle may have also played a role.

⁶ OECD, Health Statistics, 2020

employees came to 8.6 million that is to say 5.6 million in full-time equivalent (ETP)⁷. It decreased to 1.3 million in August that is to say 0.5 million in full-time equivalent⁸. These movements can be compared to other European countries' where part-time activity is similar (Graph 9). Due to temporary work contracts ending and decrease in hiring, there was however inflow into unemployment, but out of proportion with the activity drop.

Graph 9: Unemployment rate and part of workers in job maintenance programmes (%)



Source: Eurostat

Note: The countries which are studied are Germany (DE), France (FR), Italy (IT) and Spain (ES). Unemployment rate is in the first semester of 2020.

However, private paid employment has decreased of 3.3 % between the fourth quarter of 2019 and the second quarter of 2020⁹. During the second quarter of 2020, the 15-64 employment rate decreased of 1.6 point compared to the end of 2019, reaching its lowest level since 2017 of 64.4%. Furthermore, while the employment deficit of the youth (15-24) and of less qualified workers (diplomas below lower secondary education) is proven¹⁰, they are more affected by the crisis (Graph 10).

⁷ Overview, labour market situation during the health crisis, 29 September 2020

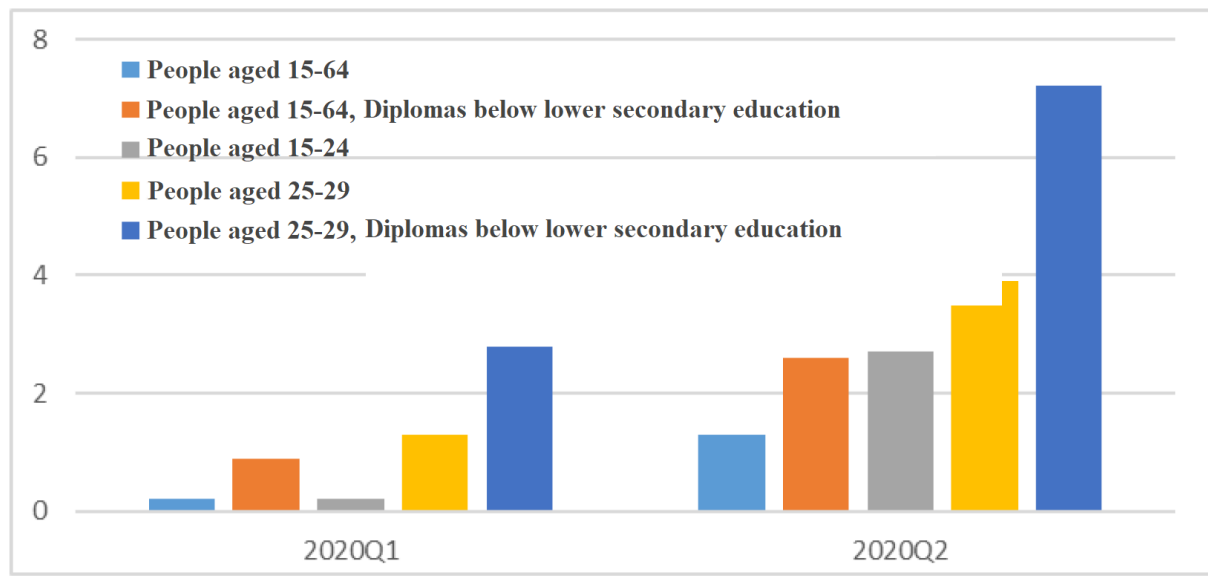
⁸ Directorate for Research, Studies and Statistics (DARES), labour market situation during the health crisis, September 2020

⁹ INSEE Informations rapides n°203, 13 August 2020

¹⁰ Etude France 2019, Futuribles

Graph 10: Decrease in employment rates compared to the fourth quarter of 2019

Percentage point



Source: Eurostat (2020), detailed quarterly results of the *European Union Labour Force Survey*.

A vulnerable weakened population

It is also significant that in the majority of the most affected sectors by physical distancing or by households' behaviours change (hotel trade, culture, some services to individuals, construction industry but also business during the lockdown) work the most vulnerable employees. Indeed, concentration in precarious contracts (part-time, temporary contracts, freelancers) is particularly high compared to other sectors (Graph 11). Furthermore, these sectors gather a bigger part of poorly-skilled workers. It is also in these sectors that an important number of unskilled young people work. If the safety net is quite wide in France compared to other OECD countries, however, the experience of previous crises shows that these workers are the ones who suffer the most from prolonged recessions.

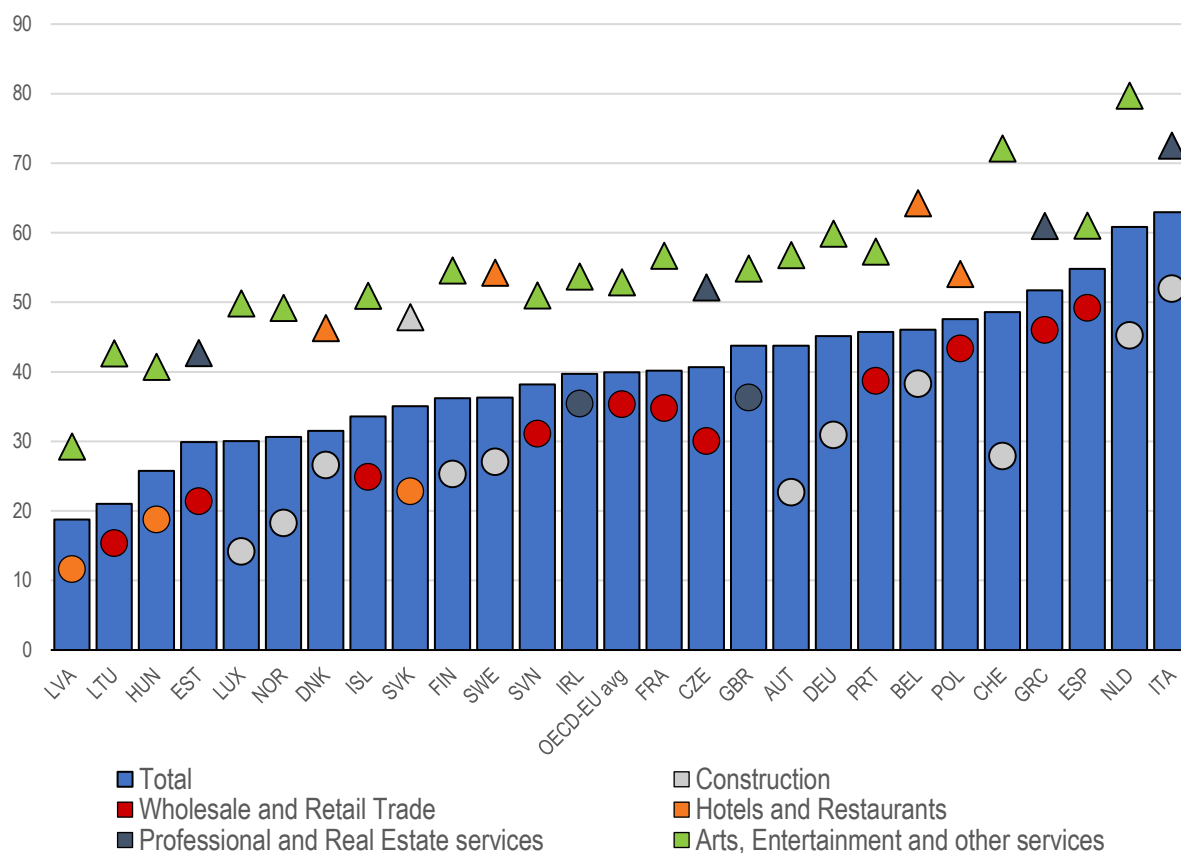
Furthermore, the Council for economic analysis (CAE) reveals in a recent study that people with the lowest incomes had their net wealth reduced during the crisis (debt increase, cash savings decrease)¹¹. Finally, the most low-income socio-professional categories are the most exposed to health risks related to Covid19¹².

¹¹ Bounie et al. (2020), Council for economic analysis, note n°049-2020, October 2020.

¹² Studies from SAPRIS and EPICOV, Inserm, 2020

Graph 11: Non-standard workers in activities most affected by the shutdown across European OECD countries

(Percentage of wage-earning employment in affected sectors, 2018)



Source: Calculation based on EULFS data

Note: Non-standard contracts gather temporary contracts, part-time jobs and freelancers. In the sector of 'arts, shows and recreational activities', other services include some which are not also mentioned such as repairs of computer equipment or other household equipment. The blue rectangle is the non-standard contracts part in total employment in average in these sectors. The triangles (circles) show the maximum (minimum) proportion in the middle of each considered sector.

Despite protected jobs, the health crisis created a fall in consumption and investment.

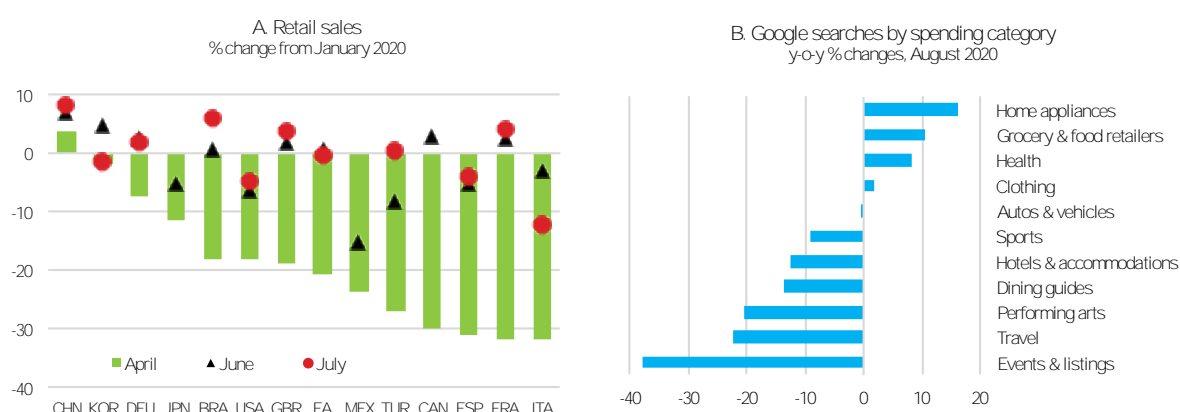
In general, employment and income support measures have protected households' incomes. The fall in consumption corresponded to closures of activities and to a change in behaviour facing the epidemic. It would reflect a little, during the lockdown, a decrease in average spending power (available nominal income of households being lower of 1% than its level one year ago whereas GDP would have fallen of 15% in nominal at T2). Nevertheless, households' situation is heterogeneous and behaviours varied depending on income levels. The Council for economic activity also shows that less well-off households' consumption decreased less than better-off households'¹³. In fact, less well-off households' consumption is more focused

¹³ Bounie et al. (2020), Council for economic analysis, note n°049-2020, October 2020.

on basic goods, that cannot be postponed over time, on the contrary of durable goods consumption.

These results can be found in countries where consumption can be followed thanks to credit card expenses, linked to income levels¹⁴. High-income population consumed less than usual, whereas lower income deciles did not. And indeed, some categories of expenses rebounded relatively quickly, in particular households' expenses dedicated to various durable goods, for which there was an accumulation of unmet demands during the application of strict lockdown measures (Graph 12). In total, at the end of the lockdown, consumption was at a level close to the one before crisis.

Graphs 12a and 12b: Households' goods spending has rapidly recovered, but spending in services is weaker



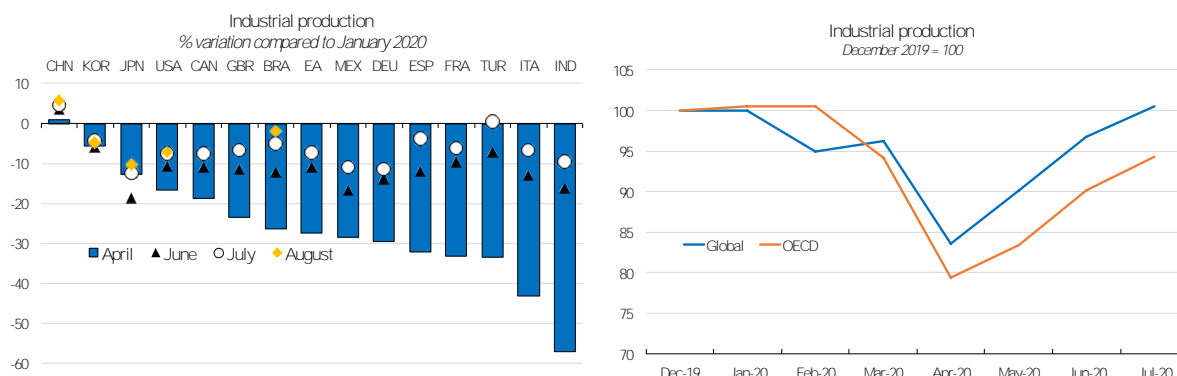
Source: OECD, Interim Economic Outlook, September 2020.

At the same time, measures of support to companies' treasury helped the balance sheet of these companies, protecting them immediately from failures. This also caused some savings – however that may be temporary – most of companies' support measures being in the form of deferral of expenditures, taxes or loans in France. Expenditures such as investment intent worsened, suggesting that the high uncertainty should keep companies' investment for a certain time to a lower level than before the crisis.

On the one hand, all the measures helped business back on track in less affected sectors by virus spread, for the current and coming periods, as shown in graphs 13. On the other hand, business in sectors suffering from measures taken to contain the virus spread is below the levels registered before crisis and is likely to remain so as long as the crisis persists.

¹⁴ Andersen et al. (2020), Chetty et al. (2020), Goolsbee et Syverson (2020), Sears et al. (2020), Landais (2020) to come.

Graphs 13a and 13b: Industrial production gets stabilised at 5-10% below the level before crisis in OECD countries



Source: OECD

2.2. First assessments on crisis management and raised concerns

The first assessments in relation with the terms and conditions of health crisis management highlight the strong mobilisation and reactivity of French health system actors, citizens and administration facing a crisis with unprecedented scope and seriousness. This leads to remind the advantage of a strong social protection system.

However, the Mission identifies obvious anticipation, preparation and management failures.

2.2.1. In emergency situations, the hospital system showed a great adaptation

Mobilisation of hospital actors was rightly praised by public officials as well as by the population. Reorganisation of hospital services was remarkably led and carried out, based on the decision to trigger the 'French white plan' (emergency) generalised on 12 March 2020. The capacity in intensive care unit beds raised from 5000 to almost 10,000 beds to host all patients who came under such care while managing the organisation of 600 transfers from regions under stress to others including abroad. Cooperation between public and private sectors appears to have proven particularly smooth, even if variable depending on regions, favouring – not without initial tensions – the creation of capacities in clinics instead of personnel secondment in public hospitals. This considerable effort for adaptation to emergency and of mobilisation of willingness will not be easily renewable and will lead to a detailed feedback and to a prospective thinking.

Given its inquiries, the Mission cannot decide on care conditions in the medico-social sector (patients of residential care homes (EHPAD) and people with disabilities). From the first examinations, it appears however that some institutions would have been isolated initially and without appropriate health support, before measures of support and networking were implemented by regional health authorities (ARS) and by the main public health establishments. It also seems that evolution of population ageing together with senior citizens remaining longer at home, increasing dependence of residential care homes residents, were not considered for a coherent and efficient medicalisation of these establishments.

Regarding town medicine, the main adjustment factor was the remarkable development of teleconsultations, for which these derogatory measures were usefully adopted to promote their use¹⁵. However, such development raises important issues for the future in terms of effectiveness and quality of patients' clinic care that will need to be assessed.

However, mobilisation, in particular of hospitals, for the fight against the epidemic caused putting off treatment or delayed diagnosis. The ongoing work in different authorities cannot provide for the moment an accurate assessment regarding the importance as well as the origin of putting off treatment (cancellation, shortage in continuity of care resulting from the closing of surgeries, patients' voluntary giving up) or their health effects.

2.2.2. The creation of the Scientific Council overcomes the difficulty of public decision-makers to mobilise the scientific expertise as a decision support instrument

The crisis highlighted the divided nature of the scientific expert assessment organisation, split between specialised authorities (Santé publique France, SPF, Agence nationale de sécurité du médicament et des produits de santé, ANSM, Haute Autorité de Santé, HAS) and authorities such as academic societies or the French High Council in Public Health (HCSP). For all that it is necessary to underline the strong mobilisation of such organisations, the HCSP, for example, has issued more than 80 opinions and recommendations over specific issues during the crisis. Such organisation ensured very short-time answers to many referrals, based on individual commitment of its voluntary experts who have also got another job, and this despite a structural weakness linked to reduced own resources.

Such splitting explains that in a public decision-making process view, the need appeared to have a scientific authority at disposal more directly in charge of synthesising knowledge and contributing to the preparation of public decisions in a very short time period. This led the President of the French Republic to set up the scientific Council. Composed of a limited number of scientific experts, combining several disciplines, this independent organisation seems to have made up for existing institutional rigidity thanks to a smooth, agile and reactive operation. Within this framework, the absence of leading figures from civil society and representatives who express the population's needs, about which the scientific Council itself is sorry, could however have bothered the appropriation of its opinion by its citizens.

Even if the scientific Council could combine to its works presidents and leaders of other authorities such as the HSCP or the SPF, its creation increased more the collection framework complexity of the scientific expert assessment. The fact public decision-makers at the highest levels of State thought implementing a new authority will lead to wonder about the organisation of scientific expert assessment mobilisation in a crisis management situation and about communication of scientific basis decisions to have the population understand the situation and the implemented measures and to get involved¹⁶.

The same need for intermediation between national authorities and the scientific community emerged regarding research. For this reason, on 24 March 2020, the President of the French Republic implemented the Comity for analysis, research and expert assessment (CARE). The

¹⁵ The number of teleconsultations increased a lot in the lockdown context, to reach over 3.5 million acts between March and April compared to 40,000 per month previously.

¹⁶ A mission is all the more essential due to the fact many self-proclaimed experts expressing contradictory and evolving positions increased their comments on television sets.

Comity efficiently provided an opinion on many scientific, technological and therapeutic innovative projects, urgently and in mutual understanding with existing organisations, to orientate them towards funding sources and wrote strategic notes, including on research structuring. However, it is unfortunate that these works were not widely distributed and barely used at this stage by relevant ministries.

At this stage and given the trans-sectoral characteristics of the crisis, the Mission raises the question of a diversification and enlargement to other fields (economic, social, etc.) of the scientific Council in order to moderate, in the mentioned areas, the possible proposals and answers to questions.

2.2.3. A rather unsatisfactory management of economic consequences of the health crisis in international comparison

2.2.3.1. An efficient reporting of data system

Reporting of data regarding economic consequences of the health crisis was efficient and quick. Since the beginning of the year, the ministry of economic affairs and finance engaged in dialogue with French companies and economists to anticipate effects of the Covid-19 crisis in China on national economy. This framework laid the foundations of regular exchanges, also including representatives of elected members, consular chambers, professional federations, social and employer organisations and companies directly. A similar organisation of regular exchanges was established at each region and department level, under the presidency of prefects. The reporting of data was carried out without any discord allowing quick reactions.

Simultaneously, the French National Institute for Statistics and Economic Research (INSEE) and the Directorate for Research, Studies and Statistics (DARES) rapidly implemented a real time measurement system of the economic activity, useful for the management of economic activity.

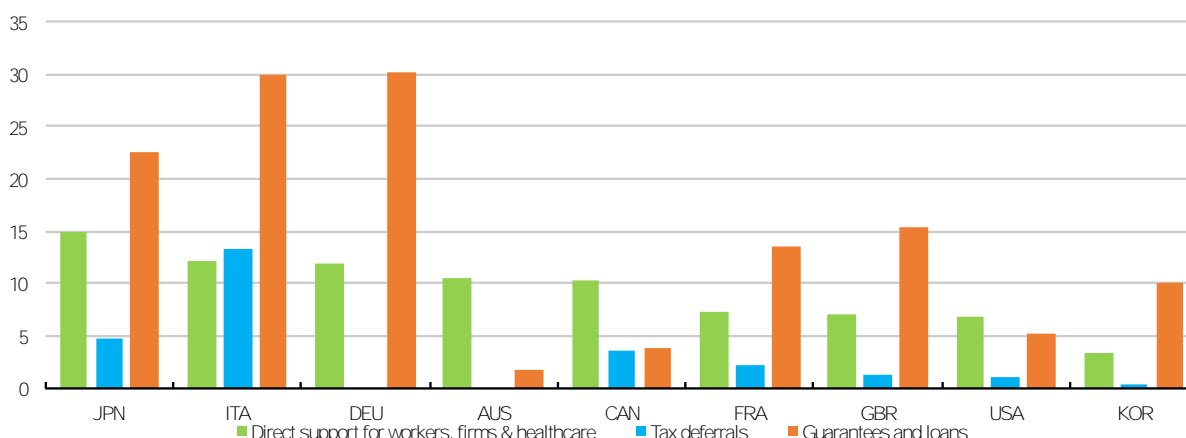
2.2.3.2. The budgetary support to the economic activity in France was similar in scale to the countries which are comparable to date

The French answer was rapidly organised into three components: direct budgetary support, mainly partial activity measures, solidarity Fund, and treasury measures, involving 140 billion euros (about 6% of the GDP) and public guarantee mechanisms (327 billion euros, that is to say about 15% of the GDP, among which 315 billion guarantees for bank loans)¹⁷. If the measures that were announced by France may appear of lower scope than in Germany, support to people (partial activity, solidarity Fund) is quite similar (Graph 14). The difference is mainly about support to companies excluding cash flow measure: the support which was announced to companies was mostly in the form of loans and loan guarantees in France more than grants as in Germany. Today it is difficult to decide on what was the effective support: it will mainly depend on the use of partial activity measures, State guarantees and what deferrals of charges will become over the coming months.

The gap between grants and debts is not neutral and will influence the capacity of companies to start over and invest in the recovery period.

¹⁷ Economic, social and financial report 2021. Appendix to the Budget Bill for 2021.

Graph 14: Wide-ranging measures regarding budget support have been announced since the beginning of the pandemic

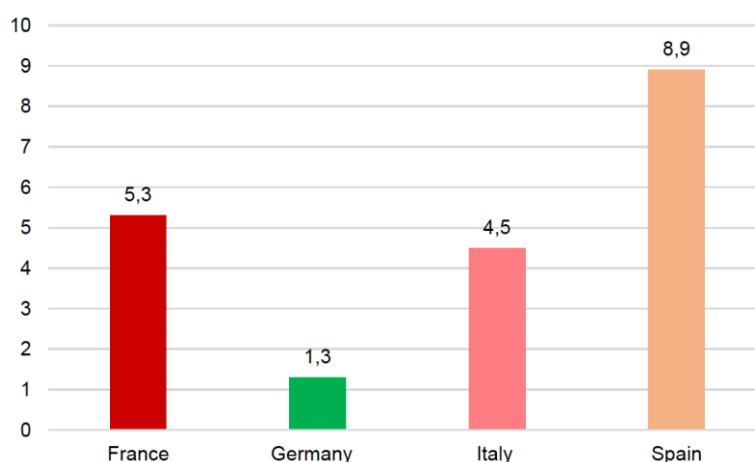


Source: OECD calculation from official estimations (except stimulus packages)

Note: Countries are classified regarding the scope of support measures having a direct repercussion on budget. The graph represents official estimations, when available, of financial support represented by emergency measures announced in some advanced economies in response to the Covid-19 crisis, on 14 September. These estimations are often highly hypothetical due to uncertainties regarding the crisis length and to the involvement of the private sector in different programmes and cannot be fully comparable from one country to another.

The amounts that were announced only give a very incomplete measure of amounts that will be indeed realised. For example, if we take a look at the disbursed loans, in fact, we see a large heterogeneity with a more important expense in favour of companies of the countries that were more affected economically, which is different from the announced amounts.

Graph 15: Amount of the loans granted by the State realised by country in % of GDP



Source: Banque de France

Note for the reader: this graph shows the amounts of granted loans approved at the following dates: 14/08 for France; 31/07 for Germany; 15/08 for Spain and 28/08 for Italy.

2.2.3.3. Partial activity measures were used by most of the countries and were rather generous in France as well as in Germany

Facing a temporary shock on activity, partial activity measures are helping people to maintain employed and are protecting incomes. They are also used for the economic activity to start again rapidly after the shock, while avoiding delays and losses of incomes linked to unemployment and job searching. Not surprisingly, many European countries, and more widely the OECD, implemented this system.

However, there are differences in the implementation of partial unemployment measures, in particular regarding the employer's remaining part. The system which was used in France as well as in Germany, is among the most generous of European countries. However, at this stage, it is difficult to assess if this could have been an obstacle to the activity of some sectors during the lockdown.

The variable quality of social dialogue may have contributed to act as a brake on activity. Company agreements 'collective performance agreements' usually allow companies to better get used to the context than before. However, negotiation and implementation of such agreements may be complicated due to a social dialogue which is sometimes a source of conflict, due to a low level of representations of trade unions and employees in small companies, as well as human resources practices within French companies, in a context characterised by a high level of fear regarding legal proceedings from companies' CEOs.

2.2.4. Gradual decline of the priority level given to pandemic prevention during the past decade

Management of health risks, among which the influenza pandemic risk, covers a wide range of possible interventions. The influenza pandemic was the subject of a preparedness plan in 2005, updated in 2011 after its partial implementation within the framework of the H1N1 influenza pandemic in 2009, the latter being less serious than what was expected.

At this stage the examinations that have been held suggest that awareness regarding the pandemic risk and density of preparedness efforts have decreased in recent years, probably under the dual effect of criticism against the management of the H1N1 influenza¹⁸ and of the priority given to the terrorist risk which dramatically came true during the attacks of 2015 and 2016.

Reduction of the preparedness effort has resulted, in particular, in the lack of simulation exercises since 2014, in the gradual decrease and not controlled of strategic stocks of masks (cf. infra) and possibly by a global loss of vigilance, the epidemics of emerging coronavirus (SRAS 2002 and MERS 2012) and Ebola being contained outside the national territory, without capitalising the lessons like some Asian countries severely affected by these viruses at the time.

For all that, elements from the preparedness and experience of the attacks management seem to have been used for the Covid-19 crisis management, and in particular the creation of the information system SI-VIC dedicated to making a list of the victims (which was used during the

¹⁸ The resources which were employed, in particular for the order of vaccines were deemed oversized.

Covid-19 crisis to track the hospitalised patients as well as hospital deaths) and the transfer testing of seriously affected patients by high-speed trains.

2.2.5. The pandemic dynamics outpaced health monitoring systems as well as bodies in charge of anticipation and deployment of countermeasures

The Mission's first works aim to show that crisis planned management measures were implemented while the knowledge and information available were distributed to the relevant actors as well as to general public, following a chronology starting on the first days of January with the level 1 warning of the operational centre for running and answering health and social emergencies (CORRUSS) of the regional health directorate (DGS), without waiting for the WHO declaration of public health emergency with international scope of 31 January 2020.

Beyond the spread of messages related to protective measures, the deployment of strong measures of physical distancing accelerated only around mid-March¹⁹. This assessment will lead the Mission to analyse whether the schedule could have been more precocious or adjusted in a different way and to study what was done abroad.

At this stage of the research, the spread of the virus seems to have not been correctly measured because of three elements: the lack of test capacity, the frequency of asymptomatic forms of the illness, the existing period between the initial infection and the appearance of severe forms justifying hospitalisation. Assessment delay proved to be all the more disadvantageous as the increasing number of hospitalised patients was exponential (cases are doubled every three days).

A possible scenario close to the one we witnessed could have been expressed by some, the SPF or the ECDC. However, it was combined with a 'very weak or weak' probability.

In total, the awareness of the excess risks of hospital capacities would not have come from 'normal' channels of health observation, but from individual initiatives (from 10 March) of clinical doctors (in particular in contact with Italian colleagues), as well as supported by modelling works, especially those of the *Imperial College* (London) and by some experts of the AP-HP and the Pasteur Institute²⁰.

The Mission will carry out an assessment comparing the delays in decision-making of the lockdown facing this unprecedented situation.

These elements will have to lead to a detailed reflexive feedback on monitoring measures, in particular on the following aspects: the possible research of weak signals, the coordination and the cross-checking of data sources in particular those coming from the economic world²¹, the capacity to rapidly plan exploratory health missions in the countries of a pandemic outbreak and the conditions of the expert assessment mobilisation.

¹⁹ Gatherings of over 1000 people are banned on 8 March, closing of schools and universities on 12 March, gatherings of over 100 people are banned on 13 March, closing of bars and restaurants on 15 March, implementation of the lockdown on 17 March.

²⁰ A note from the SPF on 11 March confirmed the necessity of important restrictions in population movements to reduce the epidemic wave.

²¹ Managers of important French companies with locations in China (and in particular in Wuhan) interviewed by the Mission indicated that they were made aware of the epidemic importance that was occurring in China at an early stage and of the spreading risks.

2.2.6. Mask availability suffered from uncertainty about the doctrine of use and from serious lack of management

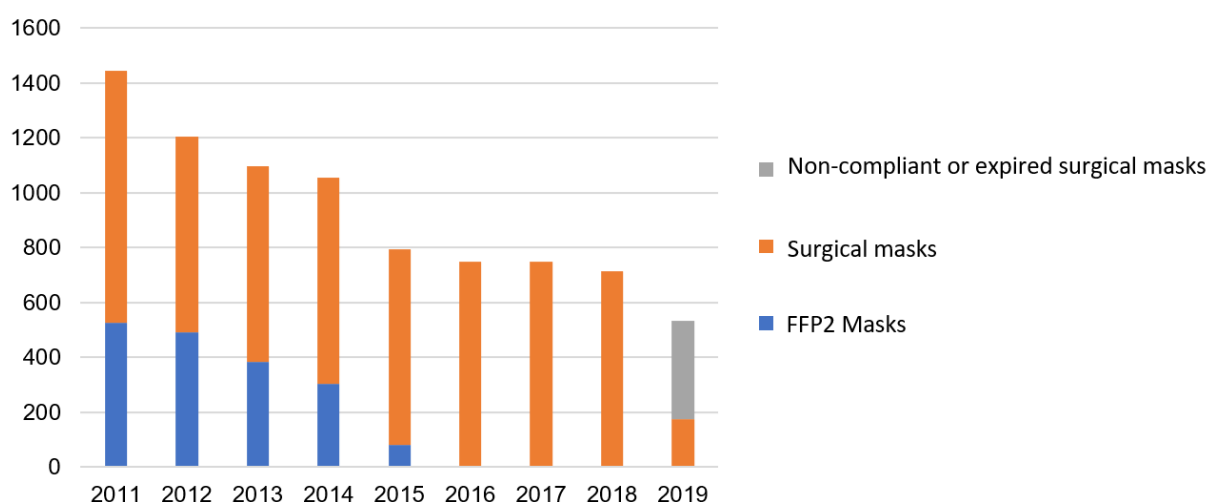
The lack characterising the first months of 2020 seems to come from, at this stage of the assessment, a combination of factors (Graph 16):

- evolution on the one hand of the doctrine of use leading to save the FFP2 masks to professionals who carry out special acts, on the other hand of the doctrine of strategic stocks leading to save them for the general public, professional publics (nursing staff or not) who need to make their own stocks, without the consequences of this final decision being clearly understood and assessed;

- management of dormant stocks leading to the late highlighting of important expired masks batches insufficiently compensated by replacement purchases;

- decision of very progressive upgrading of stocks reflecting an in-depth doubt on the place of masks in the array of interventions.

Graph 16: Evolution of the strategic stocks level



Source: Mission's works from the report data of the national Assembly's information mission on impact, management and consequences of coronavirus Covid-19 epidemic in all its aspects.

Note: Stock on 1 January of each year, in million

The non-compliant stocks in 2019 are corresponding to the non-compliance assessment and not necessarily to the real expiry date. Previous years stocks contained a proportion of non-compliant masks that cannot be precisely determined.

The high increase in needs for masks for health care personnel, in a context of unexpected tension on supply markets, led public powers to use strategic stocks in aid of health establishments and professionals, judged legitimately as a priority. The level of stocks (100 million masks) and the import delays of masks in a massive volume (around 5 billion masks

were ordered) led to the fact that health professionals' needs, in particular in residential care homes, were reasonably met only from mid-March²².

However, it should be noted that, in this situation of initial shortage, and despite the lack of a 'using a face mask' culture in general population, the French public authorities (ANSM the Directorate General for Armaments, Directorate General for Enterprises) were able to, in a short time, define the concept of 'fabric protective masks' and consider and then officially show their performances.

Concomitantly, the French standardisation authority (Afnor) offered a technical framework for the design of these masks and their manufacturing, including by the general public. Numerous popular internet tutorials saw the light of day on these concepts. Solidarity, scientific, industrial and civic commitment about the use of protective masks needs to be strongly underlined.

2.2.7. The slow increase of tests and a strategy of 'testing/tracing/isolating' which implementation is worrying

The building of diagnostical capacities seems to have been relatively slow, for reasons the Mission has not finished to investigate. For example, despite the date of clarification of kits of close diagnoses (beginning of January) by the Pasteur Institute in France and by the Hospital of Charity in Germany, the delays and scope of deployment have roughly differed between both countries.

Many technical explanations could be highlighted:

- the presence in German laboratories of open platforms, that can welcome probes of different origins, compared to park of closed devices in France;
- the existence of a private sector that is very focused and 'industrialised' in Germany and highly equipped with nuclear biology, unlike the French private sector less focused geographically and less involved in examination of nuclear biology carried out in a hospital facility environment;
- the difficulty to manage a sector of activities which is not well-known by French health public authorities, the main interchange point is the one of price regulation. Consequently, the building organisation, regarding equipment as well as measures, reagents or human resources, initially encountered a lack of knowledge by the management of processes and levers to be mobilised to accelerate deployment of tests as well as the difficulty to identify the right representatives²³;
- the length of the technical and administrative process that authorises the achievement and management of a new examination of medical biology.

But the main reason could have been found in the late identification of a requirement to carry out large scale tests. The deployment of testing capacities in January and February came within the scope of a purely hospital environment dedicated to the only diagnosis confirmation of hospitalised patients. The creation of a test think tank only took place at the end of March, its initial road map being focused on the assessment and deployment of serological tests and

²² These difficulties were not France's prerogatives; in this way in the United States, the Federal Management Agency (FEMA) approached the crisis with a federal reserve at a very low level of 25 million masks.

²³ Those are not the only biologist trade unions but also supervisors of networks and companies that are managing analytical platforms.

not on the deployment of RT-PCR testing capacities corresponding to the direct manifestation of the virus.

It is finally in the framework of the end of lockdown preparation that a deployment objective was defined by public authorities on the basis of an SPF assessment of about 700,000 weekly tests within a strategy of 'testing, tracing and isolating'. This need was largely overestimated (only 250,000 tests were carried out after the end of lockdown), leading to a wider opening of access conditions at the end of July (suppression of medical prescription).

Since October 2020, whereas about 1.2 million tests a week have been carried out, different questions arise: the priority strategy, the period of time to give back the results and mainly their operational use in preparation for epidemic control (tracing, isolation). The approach of the strategy 'testing, tracing, isolating' is too divided and strongly reduces very much the efficiency of its action in the field regarding epidemics, essential to break transmission chains.

2.2.8. The governance of the health crisis management revealed structural weaknesses

The Mission underlines the involvement and the willingness of mobilised agents.

Nevertheless, the crisis has revealed or emphasised a number of weaknesses in the governance measures. Given the scope of the crisis, its management required a series of adjustments²⁴ which came little by little and incompletely within the scope of the predefined framework²⁵. Four issues need further study:

- the challenged deployment of the crisis management process in particular at the level between ministers ruling out from the framework which is provided by the texts;
- complex organisation, and sometimes ambiguous, of relationships between the ministry in charge of health and agencies and authorities around it;
- structural weakness of administrations and agencies regarding supply and logistics;
- difficulties of articulation between the regional public health agencies, region prefects, French department prefects, defence zone prefects.

The Mission will continue following its works on each of the subjects and will give its opinion in its year-end report.

2.2.9. A communication that can be improved

Confidence has been shaken at the beginning of the crisis by polemics over masks and, to a lesser extent, over tests. Official speeches over masks and the doctrine of use have evolved a lot and have appeared as contradictory to the point that they could be seen by the population as lies. The evolution of recommendations, in particular for the general public, was not understood as an adjustment to the new scientific knowledge or to the new levels of stocks,

²⁴ Activation of the crisis management centre in the Ministry of Foreign Affairs to manage the repatriation of French expatriates in China on 27 January 2020; activation of the health crisis centre (CCS) on 27 January; activation of the interministerial centre on 17 March in co-management with the CCS until 20 May; implementation of the full-function crisis interministerial centre pattern from 20 May.

²⁵ Defined by the interministerial circulars of 2 January and of 1 July 2019.

but rather as a will to hide a failure²⁶. This 'false start'²⁷ regarding communication in a French society characterised, even before the crisis, by a strong distrust with regard to decision-makers, had impacts throughout the health crisis.

The general public's level of information and understanding is unseen for a crisis with such scope. Continuous news channels, social networks and the many publications available on the internet immerse citizens at the heart of scientific and political debates that are stirring up the crisis. In such conditions, the scientific and rational side behind each measure has to be explained without ambiguity as well as limits of available scientific knowledge in order to anticipate a potential evolution of instructions and health measures.

Without elements explaining and recognising limits of the measures that were implemented, citizens can meet difficulties to feel involved in a collective strategy and see the measures as unjustified constraints, with a feeling of infantilization and distrust.

²⁶ Incapacity to provide masks to 76% of French people according to a poll from Odoxa on 9 April.

²⁷ On 1 May, 80% of French people thought the government had hidden information according to a poll from Odoxa.

3. FOR NOW, SEVERAL POINTS DESERVE SPECIAL EMPHASIS

The Mission will suggest, in its final report, structural proposals to increase the preparedness to the pandemic risk and the French capacity of crisis management, based on its conclusions on strengths and weaknesses of the measures put to the test by the Covid-19 crisis. It will also have to take an interest in room for manoeuvre to strengthen and coordinate the answers at the European level and in the effects on the economic and social activity of borders closure and mobility restriction measures between countries.

At this stage of investigations, and whereas an epidemic return is announced in France and in the rest of Europe, the Mission draws public authorities' attention to different points.

3.1. Share a clear awareness of the context (live durably with the virus) and reshape communication

Despite the steady growth of knowledge on the virus, the slight hospital care improvement concerning serious forms of the illness and progress regarding the development of vaccines, the pandemic should continue over the next few months.

In front of a crisis that should be long-lasting, the Mission asks the government to take on the objective of protection of economic and social life, essential to education and to the youth's future, given the constraint of guaranteeing people's safety in their professional and personal life. It requires to clearly inform the general public on the reality of risks, the fact they will continue during the coming months and the need for a collective and united effort, but also uncertainties that remain. The recognition of initial doubts concerning communication over masks is a precondition for a communication based on trust and an appeal to citizens' responsibility. The provision of geolocated data, of information over infection chains and not only on mere clusters (if necessary by strengthening capacities of health crisis centre management), as well as the explanation over the rational scientist making the decisions, should participate in it. Moreover, communication would be better if it were divided to reach different relevant audiences, in particular young and elderly people, by relying on appropriate representatives (influencers, 'Youtubers', leading figures of sports or of the cultural world, humorists, local scientific experts) and conveyors specific to the concerned public (social networks, regional daily press).

This renewed communication policy should go back on basics of the preventive strategy. The respect of physical distancing and hygiene rules, the only tools to protect us collectively at the expense of controlled constraints must be at the heart of this strategy. Wearing a mask does not replace the frequent washing of hands and respect of physical distancing.

3.2. Better establish the legitimacy of the decisions regarding health

To improve the adjustment and acceptance of health measures in this new phase of the epidemic, health democracy should be strengthened. The following is suggested:

- to better consider the social and economic dimension of the health crisis by broadening the composition of the scientific council and by including representatives of the health system users;
- to support by accurate data (more geolocated) the decisions related to restriction or relaxation of economic and social activity measures;
- to ask prefects and directors of regional health agencies to organise territorial warning measures, to relay issues and to develop proposals;
- to ensure the systematic association of a scientific leading figure to the institutional communication.

3.3. Clearly accept that tests are designed for breaking chains of transmission

It is not within the scope of the Mission to look deeper into the organisation of the measures 'testing, tracing, isolating'. Furthermore, it cannot express scientific recommendations on the good use of the different types of existing or upcoming tests. For all that, it is clear that current measures are questioned by professionals as well as public opinion on a double dimension strategic (what are the aims?) as well as operational (which operational efficiency?).

The announcement of successive adjustments on access priorities and ways and means to implement them as well as the importance given to the techniques of tests and/or analysis do not meet the professionals' expectations and do not allow general public to understand what is at stake. Furthermore, these are focused only on the testing dimension while tests are relevant only as a diagnostic tool (it is different regarding their epidemiological aim) as well as combined with tracing and isolation of patients²⁸ relevant to break transmission chains.

In addition, a task force is to be rapidly implemented to:

- think over, by combining all the stakeholders, the part 'testing/tracing/isolating' of the strategy of epidemic control by including innovations to come and by specifying the ways to implement it;
- direct its deployment thanks to a complete a battery of indicators (from symptoms to isolation);
- synthesise epidemiological results that were obtained in order to better understand the clusters and to allow an informed return to the public decision-makers.

²⁸ Both aspects appear today as being faulted: lack of tracking contact cases and failure to respect isolation in proportions estimated at 30% of cases by some regional health agencies.

3.4. Carry out a pro-active policy to increase vaccination coverage against seasonal influenza and prepare the implementation of an eventual vaccine against the Covid-19

The spread of protective measures (and sometimes the lockdown) seems to have contained the seasonal influenza epidemic in the southern hemisphere during winter 2020. It remains true that an effort has to be made regarding a voluntarist policy in France to promote vaccination for seasonal influenza for priority public, as well as health professionals, to avoid the saturation of hospital emergencies and doctors' surgeries, the increase of diagnoses periods and of preventive quarantining. Public authorities have increased very slightly and rightly the number of ordered vaccines this year. For all that, a strategy needs to be defined in advance to cope with the hypothesis of a stronger demand than what was predicted.

Furthermore, it is important to anticipate the coming developments of the crisis by starting to think, involving in particular town doctors and users, on the implementation of a strategy of anti-Covid vaccination on a large scale within a short time, as well as its logistic organisation. Such thinking would also have to consider scientific and ethical questions likely to arise (for example the debate over the sometimes mentioned implementation of an 'immune passport' to confirm people's immunity).

3.5. Organise the information sharing between regional health authorities and health facilities in order to ensure care to all the patients

Given the expected duration of the crisis and the experience of the first term of 2020, keeping at the highest possible level the patients' network who are not infected with Covid-19 has to be the purpose. To achieve this, a more organised sharing of territorial modelling data about the epidemic on estimated needs in hospital beds (including intensive care) with healthcare facilities and by a better definition of what is decisive regarding the cancellation of less urgent activities is required. To this end, the implementation of structured organisations, gathering all the facilities of a territory under the responsibility of the regional health agencies, could allow to manage at the same time cancelled operations diminution in spring and the possible cancellations to come, to limit as much as possible the impact on non-Covid treatment.

3.6. Reassure on the safety at work

Keeping a dynamic economic activity during Covid-29 period and avoiding a lasting exclusion of some company employees involve reassuring and making it possible for them to get back to their workplace during the whole week or only part of it in appropriate health conditions. In this context, the Mission wants all ministers (in particular ministers responsible for work and transport) and public authorities in charge of these issues to support initiatives such as:

- the flexible implementation of time charters, flexible working hours and development of transport means with soft mobility, to address the concerns caused by the use of public transport during rush hour;
- the possibility for companies to offer, on a voluntary basis, Covid-19 tests, without giving the results to the employers or creating a personal data file;

- a deployment plan of remotely work tools for State, regional authorities as well as public institutions agents.

3.7. Initiate without delay an in-depth study over the question of delayed care

The Mission wants to draw the decision-makers' attention to the need for assessment of the delayed treatment phenomenon extent and its consequences, depending on the different pathologies (cancers, mental illnesses, etc.). In fact, the decrease in treatment during the lockdown weeks does not seem to have been followed by a catch-up effect during the following months. Furthermore, there is a concern that the patients' apprehension regarding the risks to overload even to visit doctors' surgeries or hospital services would last. Thinking with all the stakeholders (in particular the academic societies, health insurance and patients' representatives) needs to be launched without delay to make an assessment and to solve identified problems.