


TRANSPORT / EUROPE #3

THE COVID-19 CRISIS AND TRANSPORT IN EUROPE

The (remote) meeting of the OPSTE Board of Experts held in December 2020 focused on the Covid pandemic and the measures taken in various European countries to stop it from spreading, especially those targeting the movement of people.

How, it was asked, did the first symptoms and initial responses to the crisis manifest themselves in these countries where governance methods and political cultures are so dissimilar?

Furthermore, how have mobility practices been affected by the restrictions (such as lockdowns, curfews, e-learning, remote working, etc.) on some of the reasons for travel, and by the guidelines on the actual use of means of transport (reduced services, social distancing of travellers, facilitating trips by bike, etc.)? Are lasting changes already taking shape?

This first comparison will be supplemented, when the time comes, by a comparison of the national and EU recovery plans to be established in the upcoming months – with a particular focus on the changes in mobility and logistics systems they will imply.

The Covid epidemic has disrupted the way European countries function. Some of its consequences are likely to be felt for years to come, and not just due to its impact on our health but also as a result of the considerable number of resources being deployed to respond to it.

An anthropological change

Before addressing the specific theme of the relationship between Covid and mobility, a close reading of the decisions taken in Europe to tackle the epidemic leads to a very important observation: in just a few weeks, a dramatic shift in the priorities and actions taken by political leaders was witnessed. In most European countries (unlike, for example, in the United States and Brazil), protecting the health of the population has obscured other public policy concerns such as the safeguarding of economic activity and the balancing of public finances. For a limited period of time, governments have become “public health committees”, which has not made their decisions immune to criticism... Furthermore, the global pharmaceutical industry and researchers have designed and started delivering multiple vaccines in barely 12 months following an unprecedented effort, whereas it usually requires around ten years in this type of situation.

These two events combined constitute an anthropological shift that we have not yet fully grasped.

In the first instance, the health crisis that began in Asia highlighted Europe's dependence and vulnerability regarding the supply of basic but essential goods (such as basic pharmaceutical products), as well as the fragile nature of some international logistics supply chains. Will the need to partly re-industrialise the continent to strengthen its economic sovereignty be embodied in a European strategy?

National responses to the global pandemic

From a medical perspective, we can see a European-wide synchrony in the spread of the virus (explained by the movement of people) – although with a degree of disparity in its intensity (Greece and the Balkans, for example, were much less affected than other European regions by the first peak of the epidemic, known as the “first wave”).

While the rapid spread of the disease and its severity soon became clear, understanding its mechanisms and identifying the correct responses were not immediate. In the face of such unprecedented and largely-unpredictable phenomena, public controversies have broken out between experts (and sometimes self-proclaimed experts) in each of the countries observed. These disputes focused both on the origin of the epidemic (contact between humans and bats, globalisation and freedom of movement, climate change, neoliberalism, an appetite for pangolins as a delicacy, an error in a Chinese laboratory, a global conspiracy by the pharmaceutical industry, etc.) and on the ways to tackle it (with, at times, suggestions of supposedly-miraculous remedies). As a result, doubt has been cast on the legitimacy of science and political discourse, although in a noticeably different way from one country to another. Nevertheless, simple calculations show that the recommendations that have been applied prevented millions of deaths in Europe, while global cooperation and unparalleled research efforts have led to the provision of vaccines in an exceptionally short timeframe.

The list of the measures that were taken is long and varied. It is a result of dialogues between scientific experts and political decision-makers, as well as of a progress of the knowledge we have on the disease, and of changes in the health situation (themselves derived from the success of the previously taken measures: there is a dual learning and feedback effect). The initiatives envisioned by this list include the recommendation or imposition of a range of safety precautions (masks, disinfectant gel, hand washing and social distancing) together with the establishment

of restrictions on gatherings (regardless of the reason: schools, shops, live entertainment, and leisure activities, etc. and particularly work, with remote work encouraged wherever possible) and travel. In fact, individual mobility is one of the key variables in the dynamics of contamination: it is advisable to act both on the reasons for travelling (is it really necessary or essential?) and the conditions.

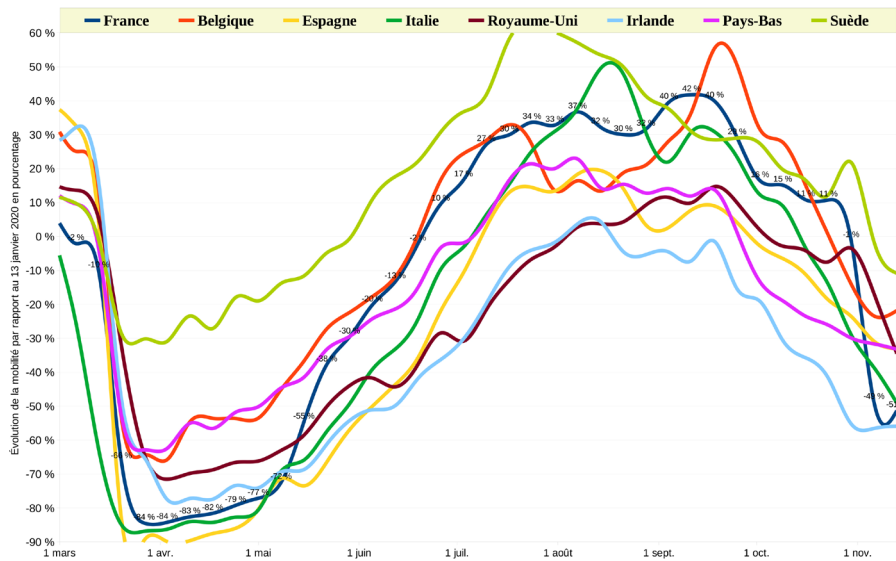
First measures taken by the European Union regarding transport

The European Union only disposes of the powers that are attributed to it by the Treaties. Article 6 of the Treaty on the Functioning of the EU (the 1957 Treaty of Rome) specifies that the protection and improvement of public health is an area where the EU only has a supporting competence; in other words, it is an area where the Union may only intervene to support, coordinate or complement the actions of its Member States. However, other competences devolved to the EU, such as establishing competition rules (an exclusive competence), the internal market, or research and transport (shared competences) have led to the development of several European measures to tackle the Covid-19 epidemic and its economic impact.

Following accusations that it was nowhere to be seen in the first weeks of 2020, the European Commission reacted in mid-March by authorising Member States to support their economies (granting state aid to companies, activating the general escape clause of the Stability and Growth Pact, etc.). It also issued recommendations about border management, with direct consequences for transport.

In the communication on the Temporary Restriction of Non-Essential Travel to the EU, the Commission proposed that Member States of the Schengen Area close EU external borders for a period of 30 days in a coordinated manner. This included exemptions for citizens of the Schengen Area returning home, and for certain categories of worker, including those in the freight transport sector.

This restriction on “non-essential” travel was designed for two reasons: to protect the health of Europe's population as well as limit the spread of Covid-19 from the EU to other parts of the world; and to allow the lifting of the control measures reintroduced at certain internal EU borders, which the Commission feared would have a negative impact on the functioning of the internal market, above and beyond the political aspect.



Individual mobility in eight European countries
 (by car, on foot and using public transport)

Source : Apple data on iPhone
 users : [tps://Covid19.apple.com/mobility](https://Covid19.apple.com/mobility)

A second wave with a more homogeneous diffusion

With the gradual convergence of lockdown measures, many similarities can be seen in the transportation sector regarding the effects of the fight against the pandemic.

From autumn 2020, the protective measures began to appear quite similar with a shared tendency to become more synchronous, especially as the attempts of certain countries to achieve “collective immunity” (in the United Kingdom and Sweden) or to especially count on individual responsibilities (as in Germany) had disappointing or even worse outcomes, prompting governments to realign themselves with less bold alternatives. This convergence has also resulted from the progresses that were made in treating people suffering from Covid, especially in hospitals. At last, we can expect a convergence of the initiatives to make our way out of the health crisis – particularly those of mass vaccination that are to be conducted in the upcoming and piloted at EU level precisely to avoid any discrepancies between European countries based on their wealth and unequal capacity to acquire vaccines.

Consequently, shifts in mobility patterns (resulting either from the downturn in economic activity or the restrictions placed on travel) show changes of a different magnitude but nonetheless clear simultaneity.

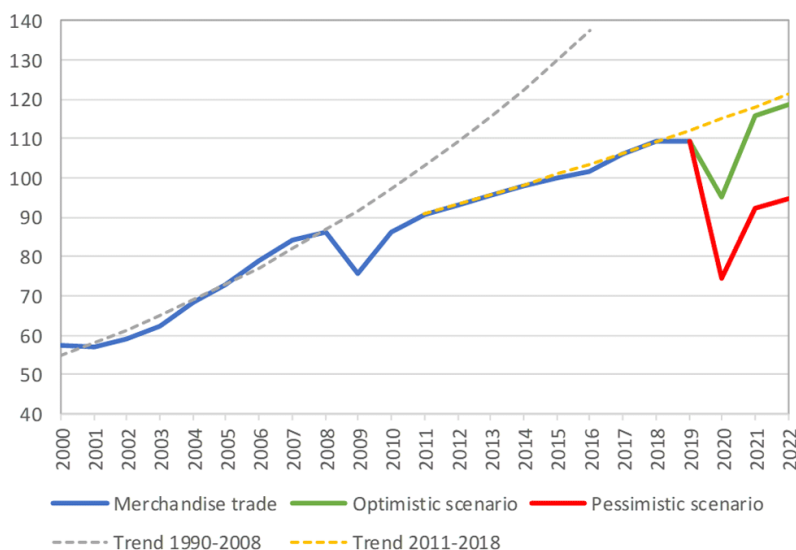
The noticeable drop in travel has had a very strong impact on short and long-distance public transport

companies, while walking and cycling in towns has grown (often encouraged by the “tactical urbanism” of local authorities creating new cycle paths) and car use has fallen only slightly. The fundamental economic model of public transport has been called into question, perhaps on a long-term basis, with a drop in ridership, in commercial income and in the amount of resources provided by the public authorities organising mobility: what will the new balance between pricing and subsidies in terms of investment and operations be?

Furthermore, these changes make it even more necessary to pursue technical, energetical and organisational innovations to improve efficiency and attain a better ratio between income and expenditures.

Changes in transport volumes have been much less substantial for freight transport. The temporary interruption of some international chains, as well as lockdown measures did not prevent supplies being maintained. For a long time, logistics have been almost invisible to the general public. They now appear to all as an essential strategic function. Furthermore, the restrictions on the movement of people has even accelerated the expansion of online commerce and the required logistics, especially urban logistics.

The entire transport and mobility system was affected by the health crisis and its accompanying precautionary measures – nevertheless in a differentiated manner depending on whether it was local or long-distance transport, collective or individual, people or goods. What will remain in the long term of these largely unprecedented developments?



**Worldwide trade:
 2000-2018 retrospective
 and future projections**

Source : Trade shows signs of rebound from COVID-19, recovery still uncertain, WTO, October 2020.

The work undertaken by the World Trade Organisation shows the changes resulting from the 2009 crisis and uncertainty about the aftermath of the Covid crisis.

The macroeconomic crisis and the recovery plan

The macroeconomic crisis, reaching, in some countries, an annual drop in GDP of 10% compared to the previous year, will not subside in a few months when the epidemic will be brought under control. As was the case following the 2009 international financial crisis, we may wonder whether this will be a temporary setback in the line of a broadly-maintained growth path or rather a more radical shift in the trajectory – especially since debate is underway about the content of future growth, particularly the “green” nature of the recovery measures planned in Europe.

The downturn in activity has called for substantial support measures (for unemployment compensation as well as loans and subsidies to businesses and authorities) and has triggered an exceptional increase in public spending and debt in all European countries. These social and economic safeguard measures must form an organised system as well as be part of structured, multi-annual recovery plans. To avoid repeating the mistakes made after the 2009 financial crisis, the aim is to ensure that the corresponding expenditures are in line with the environmental preservation approaches adopted at national and EU level (according to the Green Pact).

European recovery plan

In May 2020, the European Commission proposed launching a recovery package: Next Generation EU. For the first time in its history, the EU would take out a pooled loan of 750 billion euros, 390 billion of which would be redistributed to member states in the form of grants, and the remainder (360 billion) in the form of loans.

The EU intends to contribute to national plans beyond its usual budget (1,074 billion euros for the 2021 – 2027 period) overcoming (temporarily?) thus, the principle of budgetary rules on public debt and deficit.

The principle was adopted by the European Council in July 2020,

nonetheless, its coming into force was subject to the agreement of Poland and Hungary whose governments (unlike the European Parliament) did not want it to be accompanied by conditions relating to the rule of law in the recipient countries. The situation was unblocked by a political agreement by the Council in December.

The so-called Recovery and Resilience Facility will render 672.5 billion euros available in the form of loans and grants to support reforms and investments in member states. According to the presentation given by the EU website: “The aim is to mitigate the economic and social impact of the coronavirus pandemic and make European economies and societies more sustainable, resilient and better prepared for the challenges

and opportunities of the green and digital transitions”.

Accordingly, each State will have to propose a national plan for recovery and resilience to the Commission to obtain financing starting with the summer of 2021.

The Green Pact will be the strategic foundation for this recovery plan from which at least 37% of the funding will be spent on the ecological and digital transition.

Transport is one of the only sectors featured in every national plan. In addition, in December the Commission published its ten-year strategy document, the European Sustainable and Smart Mobility Strategy, in line with the 2001 and 2011 White Papers.

Will the changes in practice be long-lasting?

The health crisis has introduced, or at least accelerated, changes in major social practices by modulating choices in transportation modes and by developing remote working which now concerns between 20% and 30% of jobs. Remote working is in itself a considerable factor of change in the way businesses, central governments and even charitable organisations operate and face challenges. Moreover, it has a cascading effect on the property market for office space (not just in terms of size but also in terms of interior design of business premises) and on business travel (commuting as well as travelling for work meetings previously held face-to-face after national or international inter-urban trips). There is also a search for larger accommodation further away from the centre of large towns, as well as an increased use of online commerce and its logistics. All types of mobility are thus concerned.

OPSTE will listen closely to the content and framework for implementing the economic recovery plans to come based on a comparative approach.

Finally, beyond the current crisis – which is far from over – the structural changes in behaviour that are emerging clearly call for fresh efforts to think about the future of mobility...

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TDIE (transport, développement, infrastructure, environnement) is a French think tank that contributes to the debates in France over the broad directions to be taken by public policies for transport, mobility and logistics. As an arena for discussion, TDIE brings together professionals, economic actors and public decision-makers in the transport world to facilitate collective consideration of questions concerning the financing, planning and evaluation of transport, mobility and logistics policies.

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THE COVID-19 CRISIS AND TRANSPORT IN EUROPE

GERMANY

The sanitary situation in Germany was marked by two peaks of the Covid-19 epidemic in March and November 2020. During the second peak, the rise in the number of people falling ill was higher in urban areas than in rural areas. The age groups where the variation in the rate of ill people is highest, on a weekly basis, are those between 5 and 15 years old and between 15 and 35 years old. It is possible that these are the age groups where the decisions taken by public authorities exert the heaviest constraints due to their lifestyle (the elderly, as a general rule, remain in lockdown longer).

Health policy is largely placed under the responsibility of the Länder, which is why, for instance, closing public establishments only applies for certain regions. Some observers understand that this decentralised management explains the lower incidence of Covid in the country – at least in its early stages – compared to its neighbours.

The different precautionary measures have led to significant variations in mobility, especially for the first peak (up to a 40% reduction in trips), followed by a recovery period during the summer and a second fall during the autumn. The variations in freight transport were much less impacted than in passenger transport.

Public transport operators have stepped up their procedures regarding the cleaning of vehicles; have limited the purchase of tickets to contactless payment;

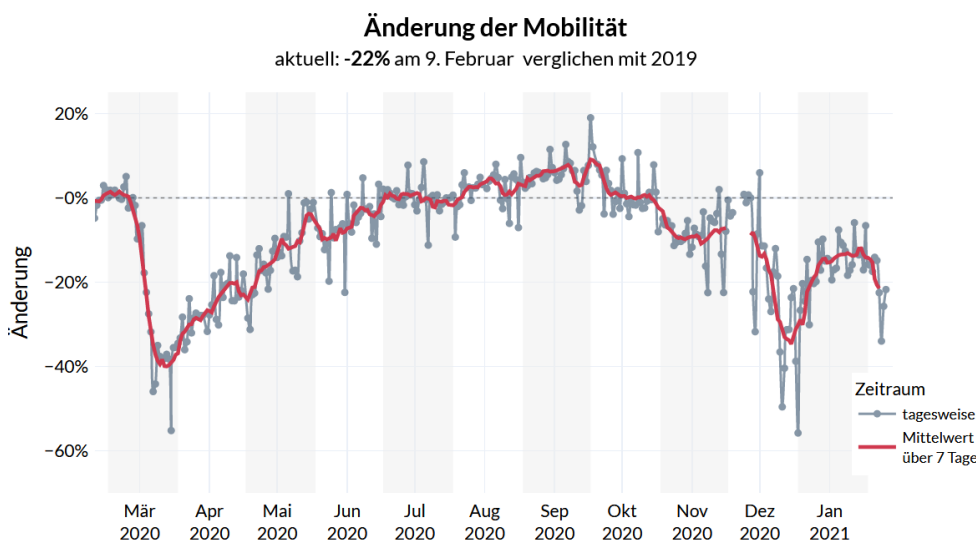
and have boosted resources for informing users about train occupancy rates. The measures deemed most effective by the public have been the disinfection of vehicles and the compulsory wearing of masks. During this period, local authorities undertaken innovative urban development initiatives, such as converting street parking spaces into café terraces or designing temporary bicycle “corona paths” (which will probably become permanent in the future).

The losses for public transport providers are estimated at 13 billion euros. They result from drops in revenue which were as high as 40% in the most critical weeks.

The government has launched a major economic recovery plan for a total of 135 billion euros. It is aimed at businesses, local authorities, and households. The part of this plan that is explicitly intended for the transport sector goes as follows: railways (DB: 9 billion euros), air transport (Lufthansa: 2.5 billion) and local public transport (2.5 billion).

Remote working was adopted by 32% of workers during the strict lockdown, and by 38% subsequently. Online commerce has grown globally, but with contrasting changes depending on the product: there has been a drop in sales of jewellery, clothing, shoes, leisure items and stationery, but a sharp increase in sales of medicine, food products and household goods.

The deterioration in the health situation in early 2021 has led to a further tightening of travel restrictions.



Daily mobility in Germany in 2020 compared to 2019

Source : <https://www.covid-19-mobility.org/de/current-mobility/>

In Germany, the decline in mobility was faster during the first peak of the pandemic than during the second

BELGIUM

The first cases appeared in Belgium in February 2020, with the epidemic accelerating rapidly. The measurement methods have evolved, making comparisons over time difficult. But we still have the basic figures, which seem generally reliable, for the number of hospitalisations, intensive care admissions and deaths. Over the months, we see that hospitalisations translate less often into deaths due to advances in treatment methods. As for the figures, there has undoubtedly been an overestimation in the effects of the pandemic by attributing the cause of death to Covid in a too systematic fashion.

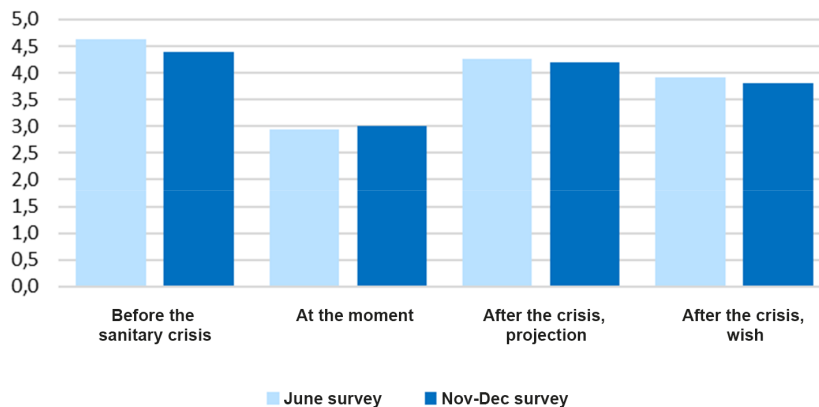
From March, visits to rest homes were banned in the Walloon Region; in addition, schools, nightclubs, cafes and restaurants were closed, with public gatherings for sporting, cultural or festive purposes also banned. At the political level, it was finally possible to form a minority – nonetheless fully-functioning – federal government, in particular in order to manage the Covid crisis (with the introduction of a lockdown, the encouragement of remote working and the closing of non-essential businesses). We may consider that the large-scale deployment of remote working is a cultural disruption that employers and employees will not be able to reverse.

A peak of the disease was observed in April, as elsewhere in Europe, but this was followed by a relaxation of measures (shops and schools reopened, and freedom became the norm again, whereas bans became the exception, with borders reopening once more). Wearing a mask, however, was made obligatory in shops, cinemas, theatres,



conference halls, auditoriums, places of worship, museums, libraries, etc.

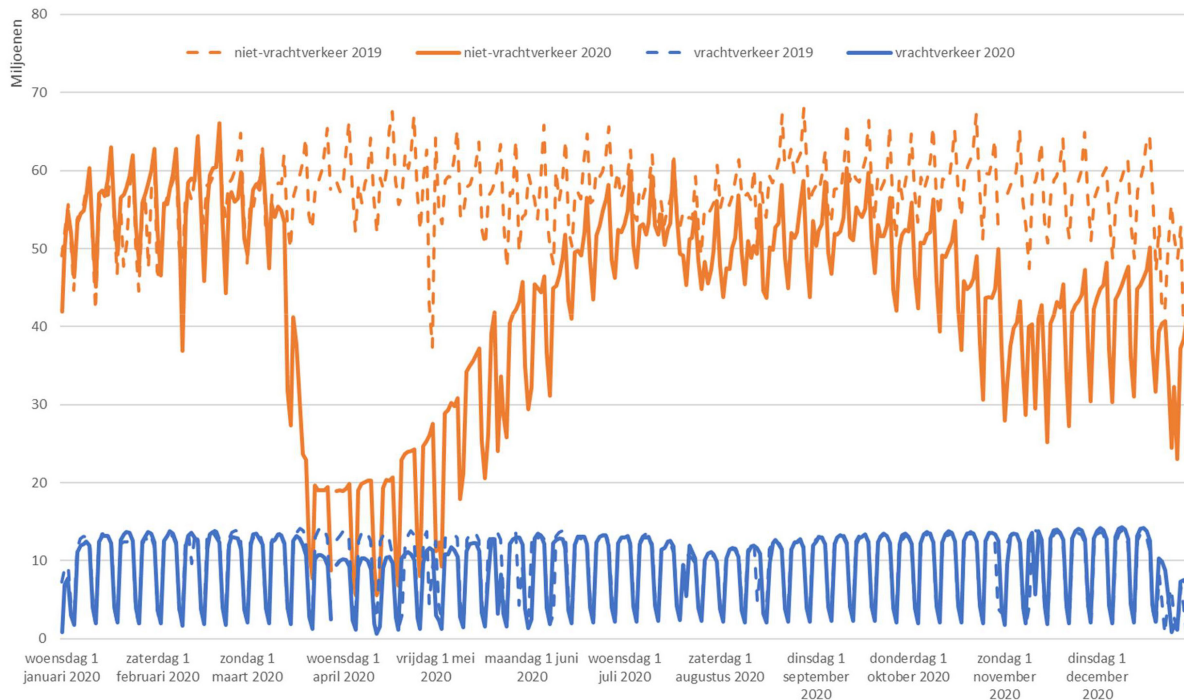
The resurgence of the disease at the start of the school year in autumn led the majority government that had been formed in the meantime to toughen the precautionary measures (bars and restaurants were closed with the introduction of curfews, followed by a lockdown of the population until December).



Changes in the number of commuting days - December 2020

Source : Service Public Fédéral (Public Service Department) - BEMOB survey: impact du Covid-19 sur les habitudes de mobilité des belges (2nd edition)

There was a marked decrease in daily commuting in Belgium due to the widespread development of remote working



Motorway traffic in Flanders, 2019-2020

Source : Agenschap Wegen en Verkeer - <https://wegenenverkeer.be/vlot-op-weg/verkeerstellingen>

Road freight traffic on the motorways in Flanders was virtually stable compared to 2019; by contrast, there were significant variations in passenger car traffic.

A June 2020 survey showed that the average number of days a worker travelled to his or her place of work fell from 4.6 to 2.9 days a week, with the figure climbing back up to 3 during the post-lockdown period. The number of cyclists and pedestrians rose (and some cities increased the length of cycle paths in the name of “tactical town planning”). The percentage of workers commuting through public transport fell from 25% to 11% in favour of the car (from 56% to 65%) and active modes (from 17% to 22%).

Passengers now enter and exit regional buses through the central door to protect the driver, and tickets are no longer sold on board. In Flanders, drivers are authorised to issue fines to travellers not wearing protective masks. School transport has been reinforced so that passengers have more space.

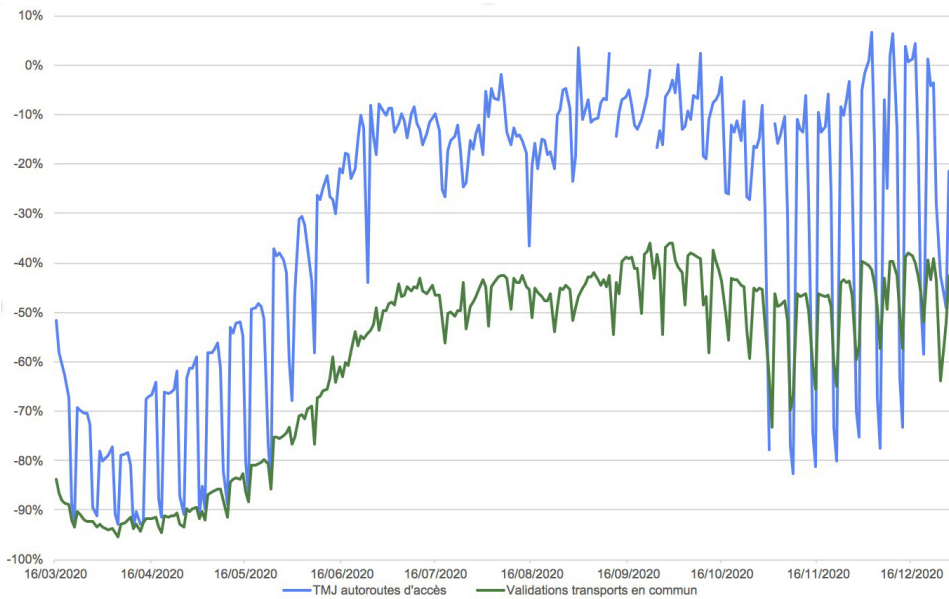
The drop in car traffic in towns during the lockdown led to a decrease in congestion, a non-linear function of traffic. There has also been a decrease in pollutant emissions, but fine particle emissions have multiple sources, and their volume has not decreased significantly.

The following graph shows the virtual stability of road freight traffic on the Flanders motorways compared to 2019 and, by contrast, the significant variations in passenger car traffic.

The change in urban public transport activity in the Brussels region shows quite a different development, with a lasting drop in ridership.

As for future intentions regarding mobility and the choice of transport mode, a survey shows different types of behaviour for the normal users of different modes of transport. The intention to make more frequent use is particularly evident for cycling and walking, and is not negligible for cars... Only the future will tell whether these changes will last once the crisis is over.

To safeguard the future of the transportation sector, the government has taken measures to provide financial assistance to the taxi, coach, and shared-mobility sectors and to support the SNCB railway company. Nevertheless, it may be thought that mistrust regarding public transport will disappear only gradually.



Road traffic and public transport in Barcelona, March - December 2020

Source : Based on Barcelona Regional Metropolitan Transport Authority

In the Barcelona area, the drop in road traffic was significantly less than for public transport.

SPAIN

Similarly to other European countries, Spain has experienced two waves of the epidemic (and risks experiencing a third, like other European countries, with the spread of new variants of the virus). The first wave was more severe than the second in terms of deaths (but the increased widespread availability of tests shows more people were ill during the second wave).

Politically, the management of the crisis was centralised at first with the declaration, mid-March 2020, of a nation-wide state of alert that introduced a total lockdown and a severe limitation on transport services. With the arrival of summer, the epidemic slowed down and the state of alert was discontinued; a gradual ending of the lockdown was organised area by area depending on the sanitary situation.

The disease came back in the autumn, and a second state of alert was voted by the Chamber of Deputies in co-governance with the autonomous communities until the end of May 2021, but with the possibility to be adjusted depending on the progress of the virus and according to the regions. A curfew was introduced, as nightlife proved to be a major contagion factor. Travel was limited, unless expressly justified, in the autonomous communities or on the weekend in municipalities.

The effects on travel were significant, in particular for rail transport on a local and national scale. Traffic resumed to a certain degree following the sharp drop

from the first lockdown, but without returning to the levels of the previous year, and it was interrupted by the second lockdown. Air transport experienced a comparable, but even more accentuated, change. In addition to the restriction on services, there was mistrust in the health safety of public transport despite the precautions taken (alongside the measures now common in Europe, “silent carriages” were introduced in the metro to limit conversation and, it follows, transmission of the virus). Individual transport modes (including cycling, which is rising sharply in Madrid and Barcelona) have gained traffic shares compared to public transport.

The following graph shows that car traffic held up better than public transport in the Barcelona area.

Across the country, a serious deficit is being created among transport operators. In spite of the absence of a stable legislative framework for funding public transport, the government has just established a Covid-19 Fund of 800 million euros to help the autonomous communities (with the region of Madrid and Catalonia in the lead), while waiting for measures for the municipalities. Other players in the transport system are also asking for help: motorway concession companies (with the government refusing to extend their concessions), SEITSA (the state-owned company for land transport infrastructure), ports, airlines (despite criticism regarding aid for a mode of transport that is more polluting than others), etc.

The reduction in transport logically resulted in a drop in road accidents (20% fewer fatalities over the year

despite an upturn during the post-lockdown period) and a drop in greenhouse gas emissions and local pollutants.

Several municipalities have developed “tactical town planning” initiatives, such as widening pavements, to facilitate physical distancing or create cycle paths. The sustained rise in remote working may trigger a new residential and property cycle leading to urban sprawl. Finally, personal mobility systems – bicycles, privately-owned scooters, self-service e-scooters as well as carsharing – are experiencing considerable growth.

FRANCE

When Covid-19 appeared in France, due to two clusters in particular (a military base and a religious gathering), few precautions were taken apart from social distancing (especially because of a lack of protective medical masks) and the first peak of the epidemic was very pronounced. Deaths were particularly high in retirement homes.

The government introduced a strict lockdown in March. This lockdown (as well as the following) was experienced differently from one household to another depending on their housing conditions, whether they had children, whether they were working remotely, whether their income held up or deteriorated, etc. The first round of municipal elections in March took place, but the second round was postponed until June.

Following the significant drop in the number of ill people, the measures were relaxed during the summer holidays in response to the fatigue of the population as well as to boost tourism in the country.

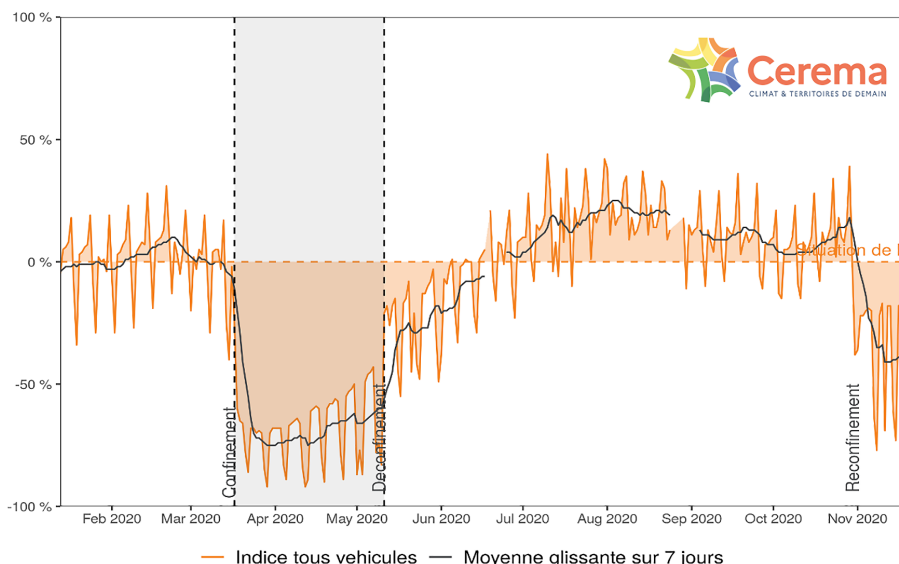
Unsafe behaviour during the summer made it possible to anticipate a second wave of the virus at the start of the school year, calling for a tightening of measures.

In comparison to other countries, the management of the crisis in France is mainly the responsibility of the government – in conjunction with a Scientific Council set up for this purpose – thus above and beyond the controversies that publicly pitted scientific figures against each other, fuelling mistrust of any expertise (a highly-publicised expert, for example, advocated the prescription of hydroxychloroquine to prevent Covid, contrary to the opinions of most public health officials around the world).

The very principle of differential regional treatment (department by department) was criticised by some elected officials in the name of equality, while at the same time lamenting the fact that the government was not putting enough trust in local officials.

The opposition parties and press have been consistently highly critical of the government’s actions in a number of areas, criticising insufficient stocks of masks and medical equipment in hospitals at the start of the epidemic; the time it took for tests to be made available; and the pace of vaccination (the effectiveness of which, somewhat contradictorily, was challenged along with the risks of side effects). However, the instructions were generally followed, and the hospital system succeeded in remarkably adapting to the exceptional influx of patients in intensive care during the first peak of the disease.

The change in car traffic shows, for example, the immediate effect of lockdown.



Changes in road traffic patterns in France, February - November 2020

Source : Cerema - <https://www.legipermis.com/blog/2020/11/19/confinement-50-de-grands-exces-de-vitesse/>

Across France, variations in road traffic for all vehicles combined underlined the collapse in traffic following the cessation of individual trips.



The current health situation is fuelling an ongoing political and social debate. Many shops and activities (live performances, bars and restaurants, gyms, winter sports resorts, etc.) have pressured authorities to allow for their re-opening. Meanwhile, towards the end of the year, alarming health indicators pushed in the direction of reinforcing precautions by extending curfew hours (banning travel without good reason after 6 p.m. – initially 8 p.m.) or even by introducing a third lockdown phase.

In terms of transport and mobility, public transport had to radically alter its functioning with a reduction in the number of users per vehicle; reinforced cleaning and disinfection procedures and resources; air exchange; the purchase of contactless transport tickets (a payment method that is experiencing exceptional growth in all businesses); better information for users via the internet; etc.

Despite public fears, it seems that public transport is not the most at-risk place for contamination for several reasons: mask-wearing is well respected; contact between travellers is brief and with low interaction; and there is ventilation and in-depth disinfection. A volume of service provision is being maintained to cover travel requirements with reduced passenger density. Parallely, walking and cycling have greatly increased in cities, with several towns and villages setting up “corona paths” contributing to a continuous urban cycling network destined to remain in place after the health crisis.

Regional and intercity rail transport are experiencing a sharp fall in activity – air transport even more so –

and are accumulating a deficit that is jeopardising the survival of companies.

For freight transport, the situation is more nuanced. Despite an economic downturn linked to a general slowdown in activity, the population continues to be well supplied with essential goods (with the logistics sector and its workers receiving unprecedented recognition). Alongside, online commerce is experiencing a boom, in particular regarding deliveries to customers (the “last mile”).

The government implemented unprecedented support measures (“Whatever it costs”, in the words of the country’s president) in the face of the deteriorating economic situation and its serious social effects (as demonstrated by the unprecedented ballooning of food aid distributions). The regulations – which in former times were theoretically inviolable (if not actually respected) relating to the public deficit and debt were simply ignored, postponing thus the issue of long-term debt management. Nonetheless, support measures do not solve everything. This situation is particularly gruelling for students – whether the latter are just studying or entering the labour market - and will have long-lasting effects.

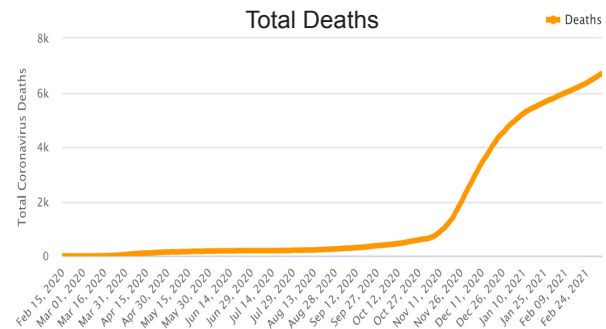
A key support measure, both for households and business, is State compensation (can be up to 80% of their salary) for employees who are prevented from working due to the lockdown and its consequences. In addition, various other measures targeting all sectors of the economy, such as partial compensation for loss of turnover, loans guaranteed by the State, deferred payment of social and tax contributions, etc were implemented. Lastly a recovery plan of an unprecedented scale (100 billion euros which will also be complemented by resources from the European recovery plan) is envisioned and will include the transport sector with 7 billion euros in capital contributions for Air France, 4 billion for SNCF, and 2.4 billion for public transport in the Ile-de-France region (other regions and provincial towns are to be processed). A significant part of the recovery plan will have to contribute to the “greening” of the economy and the transport system in particular.

The question of the economic model of public transport intervenes. Hit by the economic downturn and the rise in social assistance, the model of public transport faces a drop in ridership and commercial income while experiencing increased costs, a reduction in allocated tax resources (the corporate “mobility payment”), and a weakening of local authorities’ financing (in charge of organizing mobility).

The health crisis has also led to behavioural changes. First, they include the now widespread use of remote working (not just in companies but also in public services, starting with education). Prior to the crisis, the remote-worker rate was 7%. During the total lockdown it skyrocketed to 40%, and now it is currently around 30% of the workforce. A heavily discussed inter-professional agreement between unions and professional bodies was concluded, regulating the practices and impact of remote working (which may be beneficial or harmful depending on the profession and skills). The increase in remote working has repercussions on mobility practices, particularly the reduction in the use of urban public transport.

Some surveys indicate a shift in the residential property market as people leave for small towns or rural areas in order to find larger accommodation in a less dense environment. Regarding business property, the required office capacity might subsequently be lower and marked by new ways of space usage (fewer assigned workstations, and more shared and diversified areas for individual and group work).

Finally, even though online commerce has become the norm for a large number of consumers, its expansion raises questions and issues of political nature: it competes with traditional businesses (supermarkets on the outskirts of towns and town-centre businesses); the construction of warehouses may contribute to land take; home deliveries increase urban traffic (although shared deliveries have a better carbon footprint than individual consumerism by car); platforms use workers with insecure social status etc. Once again, transport is a collective political choice involving broader social and environmental issues that go beyond its immediate use.



Total number of coronavirus cases in Greece

Source : <https://www.worldometers.info/coronavirus/country/greece/>

In Greece, the evolution in the number of deaths clearly shows that the pandemic reached the country later.

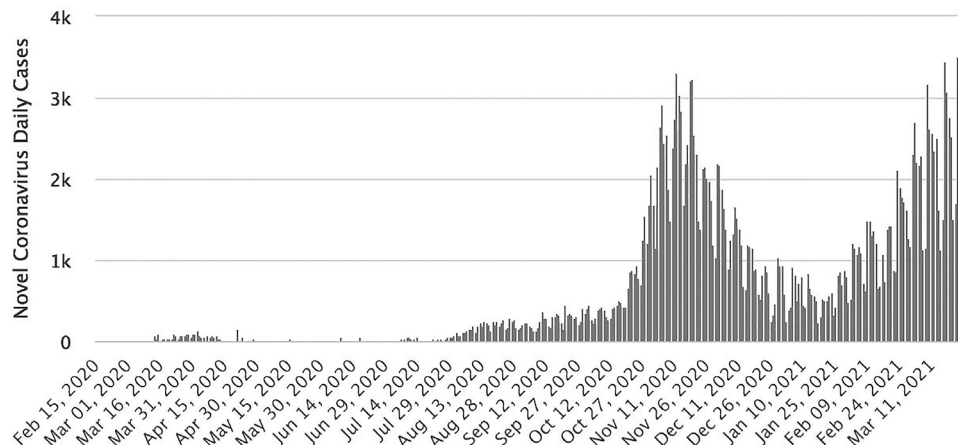
GREECE

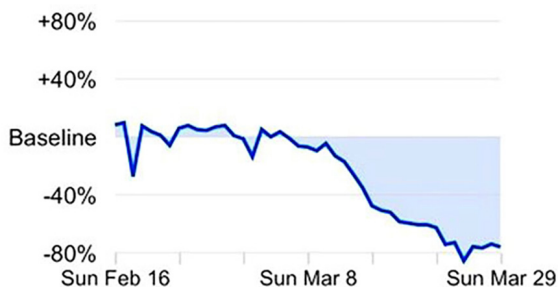
Compared to other European countries, the epidemic's start-up phase in Greece was very slow (as was the case in Albania and Bulgaria) until experienced a sharp rise in October followed by a peak in November.

In spite of the relatively low number of cases, the government reacted very swiftly from early March 2020, restricting travel in certain regions; introducing distance education in schools and universities; encouraging part-time remote working (at least two days a week) in the civil service and service sector; and closing shops, restaurants, cafes and entertainment venues. From mid-March, the government introduced a total lockdown, even prohibiting travel within the municipality of residence (except for work reasons, health emergencies and the purchase of household provisions).

Daily new cases

Source : <https://www.worldometers.info/coronavirus/country/greece/>





Changes in public transport patterns in Athens at the beginning of 2020

Source : Covid-19 Community Mobility Reports (<https://www.google.com/covid19/mobility>)

In Athens, the drop in public transport ridership was very quick in spite of the low spread of the virus in Greece.

The travel restriction measures had a strong impact on traffic. Prior to the crisis, there were approximately 7 million trips a day in Athens: 43% by private car, 42% by public transport and 11% in non-motorised modes. Public transport fell 76% during the first lockdown.

The regime was relaxed in May 2020. Metro traffic resumed quickly on the first day following lockdown, as did car traffic. This situation might spark the thought that remote working is not universally accepted.

Tourism, a major industry for the country, resumed in July, nonetheless with the establishment of various precautions (including a medical test certificate for

visitors) in order to avoid further aggravating the economic and social crisis. However, air transport - which is linked to tourism - experienced a 70% drop in activity in the first nine months of 2020, and state aid was given to support the Aegean airline (which, as well as being responsible for commercial traffic, also exercises a regional planning mission).

Similarly, the ferries that serve the islands saw a 60% drop in traffic, although coastal traffic on the Adriatic held up better, as did the Greek tramp-fleet industry.

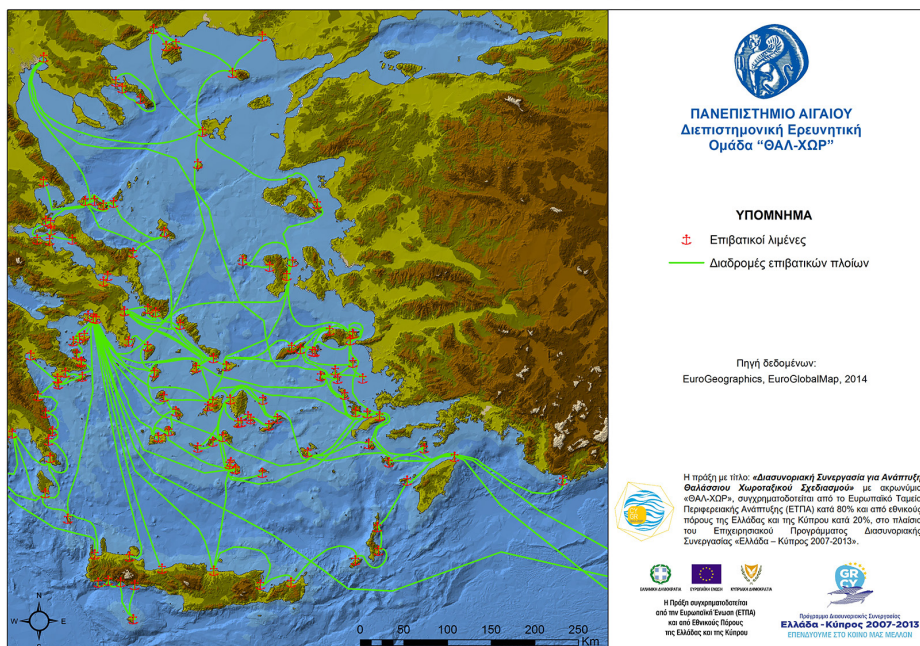
Over the entire period, online commerce expanded in a manner that is comparable to the rest of Europe.

The easing of preventive measures during the holidays resulted in a resurgence of the cases in September and was followed by a further comprehensive lockdown starting November. During the Christmas period, a relaxation of measures was planned. Its effects on mobility and transport related externalities have not yet been assessed.

ITALY

Italy was the “cradle” of the pandemic in Europe and has experienced the most tragic situation. National policy was marked by the decrees the Council of Ministers’ president issued (starting February 2020 and amounting to 19 at the date of the OPSTE meeting). They set the successive stages of the

ΚΥΡΙΑΙ ΕΠΙΒΑΤΙΚΟΙ ΛΙΜΕΝΕΣ & ΔΙΑΔΡΟΜΕΣ ΕΠΙΒΑΤΙΚΩΝ ΠΛΟΙΩΝ ΠΜΑ



ΠΑΝΕΠΙΣΤΗΜΙΟ ΑΙΓΑΙΟΥ
 Διεπιστημονική Ερευνητική Ομάδα “ΘΑΛ-ΧΩΡ”

ΥΠΟΜΝΗΜΑ

📍 Επιβατικοί λιμένες
 🟢 Διαδρομές επιβατικών πλοίων

Πηγή δεδομένων:
 EuroGeographics, EuroGlobalMap, 2014

Η πράξη με τίτλο «Διασυνοριακή Συνεργασία για Ανάπτυξη Θαλάσσιου Χωροταξικού Σχεδιασμού» με ακρωνύμιο «ΘΑΛ-ΧΩΡ», συγχρηματοδοτείται από το Ευρωπαϊκό Ταμείο Περιφερειακής Ανάπτυξης (ΕΤΠΑ) κατά 80% και από εθνικούς πόρους της Ελλάδας και της Κύπρου κατά 20%, στο πλαίσιο του Επιχειρησιακού Προγράμματος Διασυνοριακής Συνεργασίας «Ελλάδα – Κύπρος 2007-2013».

ΕΥΡΩΠΑΪΚΟ ΤΑΜΕΙΟ ΠΕΡΙΦΕΡΕΙΑΚΗΣ ΑΝΑΠΤΥΞΗΣ
 ΕΛΛΑΔΑ - ΚΥΠΡΟΣ 2007-2013
 ΕΠΙΧΕΙΡΗΣΙΑΚΟ ΠΡΟΓΡΑΜΜΑ ΔΙΑΣΥΝΟΡΙΑΚΗΣ ΣΥΝΕΡΓΑΣΙΑΣ

Inland shipping lines in Greece

Source : University of the Aegean, «Cross-border Cooperation for Maritime Spatial Planning Development », Cross-border Cooperation Programme Greece–Cyprus 2007-2013, European Commission, Greece, Cyprus.

In Greece, service to the islands fell by 60%.



Differentiation of precautionary measures by region as of November 2020

Source : <https://www.ilpost.it/2020/11/29/nuovi-colori-regioni-coronavirus-da-oggi/>

In Italy, traffic restrictions varied according to the three categories of regions defined by the State.

central power's reaction to the pandemic, which first appeared in the Lombardy and Veneto regions.

From the outset, the measures taken were quite radical – such as closing schools in the northern part of the country and then throughout Italy until the end of the school year. A special administrator was appointed to coordinate this multi-dimensional, inter-ministerial initiative. These decisions were generally well received by the population and have been applied with diligence.

From March, economic activities that were considered non-essential were stopped and, among the activities that continued, remote working was implemented as much as possible since the number of sick and dead rose rapidly. As a result, the lockdown was only extended until May, a moment when the number of cases started to fall. A second phase was then initiated with the re-opening of shops, churches and gyms, and with the authorisation to travel within regions.

At the end of the summer holidays, however, the number of cases once more rapidly rose, and a new lockdown was put in place. Wearing a mask in public spaces became compulsory, meetings and live



performances were suspended, distance education for secondary schools became mandatory again, etc. In November, a differentiated management approach to the crisis emerged between regions depending on their health status – which was assessed via a range of 21 criteria, including hospital capacity. It was not possible to leave one's village or town in the red regions nor leave one's region in the orange regions while, additionally, a nation-wide curfew restricted all travel.

In terms of mobility, during the first 30 days of lockdown, the rate of extended mobility (the share of the population leaving their homes) fell from 90% to 55%, while the total number of journeys decreased by 60% with passenger kilometres dropping by 90%. Local mobility (often on foot) increased, while mobility based on public transport usage (short and long distance) decreased with cars maintaining their relative share in all trips. Travel recovered strongly post-lockdown, even though it did not return to the pre-crisis registered levels.

The repercussions of the changes in mobility have been particularly strong on urban public transport which, in Turin for example, has lost up to 90% of users. Cycling has greatly increased.

Long-distance rail transport, air transport and airports have been particularly affected. The survival of companies operating in these sectors are linked to adequate state aid. For their part, car sales have also dropped sharply.

In addition to the macroeconomic recession that will take several years to overcome, this year has witnessed a massive increase in remote working (which concerned over a third of employees in Italy) and distance education; an increase in cycling and walking; a threat to the economic model of public transport; and a rise in the number of online purchases with a subsequent expansion of related logistics.

POLAND

In Poland, the first deaths due to Covid appeared in March 2020. Subsequently, the government introduced a range of measures restricting contact, in particular a ban on travelling abroad (which included special arrangements to repatriate tourists stranded by the unexpected measures). The health situation stabilised until the summer attained a less serious level than in Italy or France.

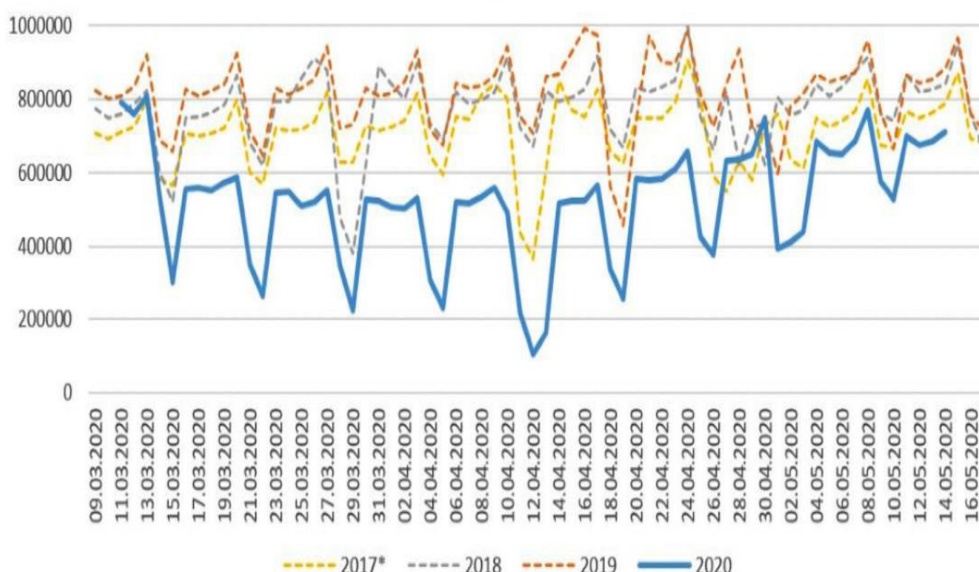
The pandemic resurfaced at the end of the summer and at the start of the school year following travel linked to the holidays. Its severity became then similar to that observed elsewhere in Europe.

The panoply of measures taken in Poland is relatively comprehensive and could serve as a checklist for other countries. With hindsight, some of these measures – such as the ban on walking in forests and on beaches – were however hardly justified:

- Closing and controlling borders and assisting with the repatriation of stranded tourists;
- Mandating masks in public places, as well as the 1.5m physical distancing, and obligating to wear protective gloves;
- Increasing capacity for biological diagnosis;
- Specialising hospitals in the treatment of coronavirus in each voivodeship;
- Creating field hospitals for treating Covid;
- Limiting regular medical consultations to online advice;

- Introduction of special protective measures for dental treatment;
- Banning gatherings of more than 100 people in enclosed spaces;
- Temporary closure of primary and secondary schools, colleges and universities and obligatory distance or hybrid education;
- Closure of nursery schools;
- Restriction or closure of hotels;
- Reduced audience numbers in theatres and cinemas as well as museum visitors (or museum closures);
- Limiting the number of customers in restaurants and bars, and even a temporary ban on food services (apart from take-away sales);
- Limiting the number of people shopping in stores;
- Closure or restriction of hairdressing and wellness businesses;
- limiting the number of people attending religious events;
- Creating an “economic and social shield” for the security of contract workers and employees in the context of the pandemic;
- Shopping hours introduced exclusively for the elderly (from 10 a.m. to 8 p.m.);
- Obligation to measure the temperature of, and record, people entering the offices of institutions and universities;
- 50% reduction in the number of passengers using public transport.

These measures have had an impact on all modes of transport. Air transport came to a standstill until June before a relative recovery over the summer. There



Total daily traffic on ViaToll toll roads from March 3 to May 16 in rolling two-day periods from 2017 to 2020 (number of vehicles)

Source : Direction générale des routes et autoroutes nationales

In Poland, motorway traffic dropped very significantly from March to May 2020.

** In 2017, the national road network had fewer traffic measurement points.*



was a decline in the use of railways and intercity buses. This was not due to government restrictions but rather because of the reduced services offered by transportation companies in the face of weakening demand. Mandatory precautions were developed for each transportation mode: limiting the number of occupied seats; mandatory mask-wearing; providing disinfectant gel; advancing ticket-purchasing; disinfecting vehicles; etc.

The reduction in mobility resulted from several complementary factors: the government's decision to suppress services (in particular, the suspension of regular international and domestic air transport); the closure of venues that encourage people to travel (nursery, primary and secondary schools, colleges, universities, theatres, cinemas, museums, restaurants, hairdressers, institutions and businesses using the remote working system); reduced travel to stores and institutions opened as a health precaution; and a limit on the number of passengers using public transport. The fall in urban public transport ridership may have been as much as 90% at the height of the restrictions.

Road freight transport held up and did not encounter any particular difficulties while port traffic decreased by approximately 10% (in 2020).

The health crisis has led to an economic recession, with a drop in GDP of 9% in the second quarter of 2020 compared to 2019 (the average GDP drop in Europe being of 11.4%). This recession has had repercussions on the labour market, corporate profitability, savings rate and its allocation, etc., and its effects will probably be felt for a relatively long time (as was seen following the 2008 global financial crisis).

To preserve the purchasing power of citizens and the economic fabric, the government put in place an "economic and social anti-crisis shield for the safety

of contract workers and employees in the context of the SARS-Cov-2 pandemic". This amounted to 69 billion euros divided between support for businesses, job security, strengthening liquidity, aid for the health sector, public investment, and support for the financial sector. The transport sector (intercity buses, airports, railways, etc.) took a hard hit and is one of the activities mostly benefiting from these measures.

At the end of the year, a certain relaxation in behaviours led to a resurgence of the pandemic, which in turn resulted in new restrictions on mobility while waiting for mass vaccination to bring these cyclical developments to an end.

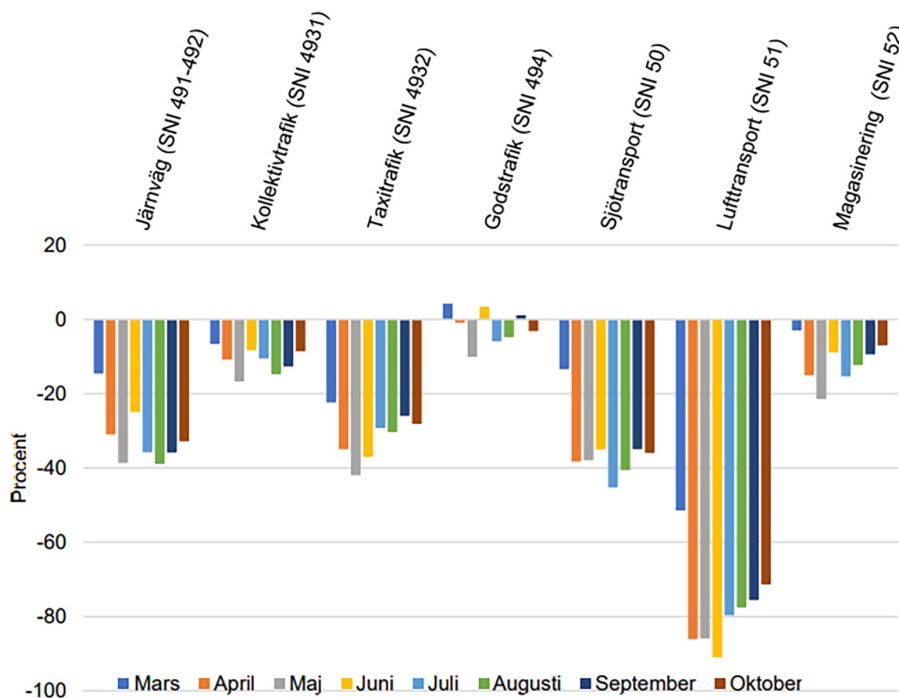
SWEDEN

In Sweden, there is a clear separation between governmental institutions and agencies delivering public policy. Health falls under the responsibility of the Ministry of Health, but it is the Public Health Agency that is operationally in charge – while hospitals come under the responsibility of the 21 regions, and retirement homes under the 290 municipalities. The introduction of exceptional legislative provisions was initially ruled out as a way of managing the crisis (a "crisis law" passed in the spring has not been implemented or renewed). At the end of the year, a law was presented to strengthen the means of government intervention for a set period (with its monitoring devolved to the regions, which, if necessary can ask for police support). A more general, permanent law on the management of pandemics is planned for 2022.

The first cases of Covid appeared in February 2020, but their number truly increased after people returned from their skiing holidays.

The precautionary measures set out were initially very moderate in comparison with other European countries: aside from distance education for secondary schools and universities, there were no compulsory closures; it was recommended to restrict visits to the elderly; and the over 70s were advised to act carefully.

The Health Agency counted on creating "herd" or collective immunity, whereby the spread of a contagious disease is halted if a certain population percentage gets immunised either by contracting the disease or by being vaccinated. Shops, bars, restaurants and other establishments were not



Changes in transport patterns in Sweden

Source : Trafikanalys (Administration suédoise d'analyse des politiques de transports. www.trafa.se)

From left to right: rail transport, urban collective, taxis, freight, maritime, air and warehousing, March-November 2020

closed, nor were borders (although measures were taken by neighbouring countries). Travel abroad was nonetheless not recommended (which led to the axing of cancellation insurance for air travel). The emphasis was on individual responsibility rather than strict guidelines.

In fact, not enough tests were available to measure the effects of this policy. A large number of deaths were observed in retirement homes (due to the lack of protective equipment, etc.). The Health Agency's guidelines subsequently came in for heavy criticism: mitigation measures were taken, and the effectiveness of masks was acknowledged and underlined.

When the pandemic resumed in autumn, the latter was stronger than expected and the government decided to close restaurants late at night, ban public meetings of more than eight people (apart from in transport), and lastly, cinemas and theatres were shut.

The effects of the pandemic on the population vary considerably depending on age and gender. Among people who are sick, 72% are men and 28% women, with a large majority over the age of 60.

Most travellers avoid public transport and taxis, while walking and cycling are favoured. Above all, older people prefer using their own cars. Many Swedes have spent much of the year in their summer holiday homes, often working remotely.

Maritime traffic with Finland was brought to a halt, as was air freight. Visitors from outside the Schengen Area or the Baltic States were banned.

Rail freight increased slightly, but rail passenger transport fell 56%. Precautions are taken in buses to protect drivers (passengers enter and exit via the middle of the vehicle). Taxis have lost 40% of their turnover. Over the months, maritime, air and rail transport have experienced the sharpest downturn in activity. Online commerce grew 49% in the second quarter compared to 2019, and by 39% in the third quarter, notably for the purchase of everyday consumer goods and pharmaceutical products.

The drop in traffic also resulted in a reduction of greenhouse gas emissions alongside a decrease in the number of road accidents (number of fatalities falling below 200 per year).

Restrictions on mobility are a source of concern for transport companies and raise the question of their very survival (the SAS airline benefits from support measures).

Remote working has risen sharply alongside remote meetings using Zoom software and similar tools. Certain consumption habits have changed: there has been a rise in purchases of household equipment and furniture, with some people taking advantage of the lockdown to renovate their homes. There has also been an increase in the price of second homes, as well as a demand for slightly larger apartments with

an extra room for remote working. Travel abroad has fallen sharply.

The economic recession is leading to a rise in unemployment, and the coming year will be difficult. Support for businesses is being developed depending on their loss of activity.

SWITZERLAND

The health situation in Switzerland experienced the same two peaks of the Covid pandemic as elsewhere in Europe – with the second peak being more severe than the first. The number of deaths in proportion to the population is, to date, relatively high. As elsewhere, the elderly are the most affected.

The lockdown was relatively light: remote working, for example, although encouraged, was left to the latitude of companies. Industry continued to function, and supermarkets stayed open (contrary to small businesses – which was the subject of debates).

The crisis also initiated a debate around the capacity to adequately organise and manage the pandemic, as well as around the improvements needed despite the lessons that should have been drawn from previous episodes (such as Asian flu). The assumptions, parameters and models of the hospital system are a point at issue: despite the country's efforts in devoting it significant resources, the results have been considered disappointing. The importance of the pharmaceutical industry to the country's economy is also well known, as is the process behind the average 10-year drug development period.

In terms of daily life, the use of online commerce has led to the saturation of home delivery capacity. Local start-ups have branched out into small businesses to deliver their products, while there has been a limitation in transportation distances for purchases. Theatres and cinemas were closed, unlike ski resorts.



Among the reasons for travelling, the “education” one decreased the most, with work reasons remaining stable. Along with walking, cycling has increased sharply – with a spectacular growth in bicycle purchases – while bus ridership plummeted and did not recover after the first wave of the pandemic. Car traffic remained stable. Rail passenger transport fell sharply.

The economic effects on transport companies are significant. Public transport reduced its services by 20% to 30% while still paying all its staff and experiencing an 80% drop in ridership. The losses are heavy for the CFF railway company on its international and national lines.

The crisis also heightened awareness about the environmental impact of the current economic model. A growing interest in circular economy mechanisms, the consumption of local products, and the affirmation of the need for the outdoors (on foot or by bike) emerged. For car sales, the number of SUVs is decreasing, and the number of electric cars is increasing. In the future, reducing the mass and maximum speed of electric vehicles would be an effective way to lower the required battery power and to save scarce materials. Moreover, the usage of the railway is now recommended more than ever, while additionally, its innovative improvements are positively impacting performance.