INSTITUT ÉCONOMIQUE MOLINARI

The Zero Covid strategy protects people and economies more effectively

April 2021

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Document completed on March 21, 2021
ISBN 978-2-931091-03-6
Legal deposit: 2nd quarter 2021

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« *The generality of men are more capable of great efforts to obtain their ends than of continuous perseverance; their occupation and inconstancy deprives them of the fruits of the most promising beginnings* »

Jean de La Bruyère, Caracters/Les Caractères
ou Les mœurs de ce siècle, 1688

« *I have opposed the principle of gradual abolition; I think it may do more harm than good to trade. Allow me to make a joke: the system of gradual abolition reminds me of the man who, in order to cut off his dog's tail without hurting him, cut off a little piece of it every day.* »

John Prince Smith, Congress of economists convened by the Association belge pour la liberté commerciale, 1847. This reasoning is still valid today. Seeking to contain Covid-19 within certain limits rather than eliminating it amounts to prolonging the problems instead of resolving them.

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1. SUMMARY

The report shows france to be more affected

France is more affected by the epidemic than the OECD countries that have chosen the Zero Covid strategy or something similar, constituting a representative sample of 82 million people in developed countries.

Deaths per million people are 42 times higher in France, indicating 63,000 preventable deaths by the end of 2020 or 86,000 as of March 20, 2021.

Last year, GDP declined five times more in France, representing lost earnings of €2,200 per French citizen.

The zero covid strategy benefits the economy

Short-term positive effects: Countries pursuing a Zero Covid strategy experienced a less severe economic decline in the second quarter of 2020 than the countries that allowed the virus to spread to such an extent that their health systems were saturated (-4.5% versus -11.7%).

The Zero Covid strategy is showing lasting positive effects: In the fourth quarter of 2020, the countries applying this strategy had almost returned to normal economic activity. Their GDP was down only slightly (-1.2%) compared to 2019. Meanwhile, the decline in GDP was greater (-3.3%) in countries that had not eradicated the virus.

Zero covid: mobility that stands up better over time

Mobility data from Google show that "workplace" traffic in the second quarter of 2020 fell by less in the countries applying the Zero Covid strategy (-14 % compared to -36 %). These data also show that Zero Covid countries retained a significant advantage with a 15% reduction in mobility in January-February 2021 compared to 28% in countries not applying a Zero Covid strategy.

Google data show that traffic in "cafés, restaurants, hotels, non-food businesses and leisure and cultural activities in general" was down by 14% in January and February 2021, compared to 2020, in the countries applying the Zero Covid strategy. This is a much smaller decline than in the countries applying a mitigation strategy (down 35%).

Zero covid helps control uncertainty

Cross-referencing of quarterly economic and health data confirms the superiority of the elimination strategy in terms of anticipation. People in those countries benefit from a level of visibility enabling them to project their societies and economies into the future.

In contrast, the course taken by the G10 countries has produced fluctuations, with the epidemic rebounding in the fourth quarter of 2020 everywhere except Japan, which is moving closer to Zero Covid. The mitigation strategy is causing them to seesaw, making it difficult to project into the future and thereby penalising societies and economies. This is especially problematic for businesses that depend on significant social interaction, which have been closed for months, as representatives of the hotel, restaurant, culture and recreation sectors have stated repeatedly.

In February 2021, Google searches for the word “Restaurant” were 64% lower than in February 2019. This decline was five times greater than in the Zero Covid countries, where restaurants are open and searches are down only 13% from February 2019.

Participation in economic and social life is a function of people’s confidence in being able to take part without running the risk of falling ill, contaminating others or seeing health services overwhelmed.

It is not only government-imposed restrictions that reduce movement. Voluntary decisions by individuals to cut back on social life in the face of a fast-spreading virus also play a key role. The Swedish example shows the importance of this phenomenon since, even without a lockdown, the decline in mobility was significant. This explains why Sweden’s economic contraction was close to the levels observed in Scandinavian countries that went into formal lockdown. Where the elimination strategy is implemented, the end of the tunnel becomes predictable, and it is then possible to make reliable long-term plans, resulting in stronger economic performance and lower mortality.

Recommendations

1. Invite an open dialog about the adoption of a Zero Covid strategy to include experts from countries that have implemented it thus far.
2. Rally the diplomatic network and parliamentarians representing French citizens abroad to broaden feedback on Zero Covid strategies.
3. Assign mandates to assess the advantages and disadvantages of strategies for fighting SARS-CoV2 by calling, in particular, upon French public organisations that analyse public policy (Conseil d’analyse économique, CESE, France stratégie, etc.)
4. Organise feedback from French communities that have implemented the Zero Covid approach (New Caledonia, etc.).
5. Support pilot projects in parts of France when local executives are receptive to the advantages of the Zero Covid strategy.
6. Bring the Zero Covid strategy into analysis of risks related to the health crisis at both the French and European levels. The European Union can be a major player in the strategy’s coordination.

2. INTRODUCTION

One year ago, France had its first Covid-19 lockdown. Far from being something to celebrate – we are still not free of the virus – this anniversary offers an opportunity to take stock.

The last few months provide empirical data useful in assessing the effectiveness of our public policies for fighting the pandemic. Despite widespread efforts, the disease has been especially deadly in Europe, North and South America. The impact has not been as great in Asia, Africa and Oceania. Though the data may not be strictly homogeneous, the magnitude of the variation raises questions.[1]

Table 1 : Mortality associated with Covid-19, by major region

Region	Population	Cases diagnosed	Deaths	Deaths per million people
North America	592 million	34 million	789 790	1 334
South America	431 million	20 million	516 083	1 198
Europe	749 million	38 million	877 479	1 172
Asia	4 640 million	27 million	415 613	90
Africa	1 341 million	4 million	109 674	82
Oceania	43 million	34 830	973	23
World	**7,8 billion**	**123 million**	**2 709 627**	**348**

Source : OurWorldInData, as of 2021-03-20

In rich countries, the discrepancies are due partly to different strategic choices. While most countries have chosen a mitigation strategy, others have taken an elimination approach. This has produced a full-scale set of experiments in recent months. At this stage, experience shows the elimination strategy (Zero Covid) to be more effective in both health and economic terms.

Contrary to some assertions, aligning health and economic concerns seems possible with the new virus, despite the challenges it presents. This calls for a change in public policy, as recommended by numerous doctors, political scientists, economists and scientists worldwide[2] and by economists Philippe Aghion and Patrick Artus.[3]

While the benefit of the Zero Covid strategy for health is direct, the economic benefit arises as an initial investment and return due to the dynamics of growth and suppression. Stopping the outbreak over a short time at a high economic cost, leads to a shift to a near normal condition with only localized episodic outbrakes, similar to fire fighting. The resulting resumption of economic activity accumulates its benefit over time. The recovery is limited only by the failure of other countries to achieve this goal and this should motivate better global collaboration for achieving a shared end. There is also room for optimizing all stages of the process to reduce the necessary investment and accelerate the restoration of normalization, including but not limited to better use of vaccination. In some circles there has been a notion of a return to prepandemic economic activity without elimination through herd immunity. This passive concept has proven a false goal, ever beyond reach and yet attracting adherents despite its manifest failure in economic as well as health terms.

3. TWO STRATEGIES FOR DEALING WITH EPIDEMICS

There are two main strategies for dealing with infectious diseases. The first one, mitigation, aims to limit the spread of the virus, with the main goal sometimes expressed as being to avoid saturating the health care system. Control measures are strengthened as the virus becomes more prevalent, then reduced as it is less common. This is the strategy being pursued in France.

The second strategy is elimination, applied historically to smallpox and measles. This is the approach chosen by much of Asia, Oceania and Atlantic Canada to fight Covid-19. Were India to take this path, half the world could soon be living without the virus. As noted by American scientist Yaneer Bar-Yam, an expert in complex systems, and Sunil Kumar Raina, an Indian neurologist and Fellow of the IAPSM,[4] "Should India join countries in Asia and Oceania in elimination, 50% of the world would become Covid-free."[5]

Then there are those who seem to think there is a third way. This would consist of doing nothing and letting the virus spread. Some of them express surprise by the fuss being made over a virus that has killed 2.6 million people, a figure that may look low compared to a total human population of 7.8 billion though it is surely high as a catastrophy and preventable deaths. Moreover, they are forgetting that the number of deaths has been limited hugely by the preventive reactions of individuals who voluntarily reduce their movements and by the fairly drastic control measures imposed by public authorities. New variants, including the Brazilian variant, that severely reinfect those who have been infected before further undermine this concept. Based on Chinese data, it has been calculated that the virus was spreading from one day to the next by a factor of 1.1 to 1.22, meaning that, after three months, if things continued as before, it could have contaminated the entire planet for lack of a collective reaction.[6]

Figure 1 : Strategic choices for pandemic response

Based on: Dowdle, MMWR Supple. December 1999 / 48 (SU01);23 7. [7]

4. TOOLS USED DIFFERENTLY

Mitigation and elimination strategies have different goals. They impose similar control measures and reductions in social interaction but in very different time frames.

Mitigation aims to prevent the saturation of hospitals by attempting to maintain the virus's spread at a level that hospitals can handle. Elimination aims to eradicate the virus completely to allow for a return to prepandemic life.

France experimented with a strict lockdown early in the epidemic due to hospital saturation in March 2020. Since then, longer-term measures to reduce contacts (wearing of masks, closing of bars, cafés, restaurants, performance venues and so on) and short local lockdowns in heavily contaminated areas were imposed in the hope of keeping the number of people hospitalized within acceptable limits.

New Zealand, on the other hand, imposed a strict lockdown at the start of the epidemic to eliminate the virus from its territory. It then reopened society as a whole while maintaining strict mobility controls at entry points along with active surveillance, which led occasionally to local lockdowns in areas where the virus was detected. Recently, Auckland was put back on lockdown for seven days.

Both strategies use interaction reduction methods, but their aims differ. The distinction lies not so much in whether or not to go into lockdown but rather in deciding why, when and in what way a lockdown begins and ends.[8] The French strategy, sometimes viewed as hospital-centric, aims to avoid the saturation of resources. The Zero Covid strategy aims to maximize the benefits from the effort exerted in the fight against the virus and to enable individuals to return to normal life.

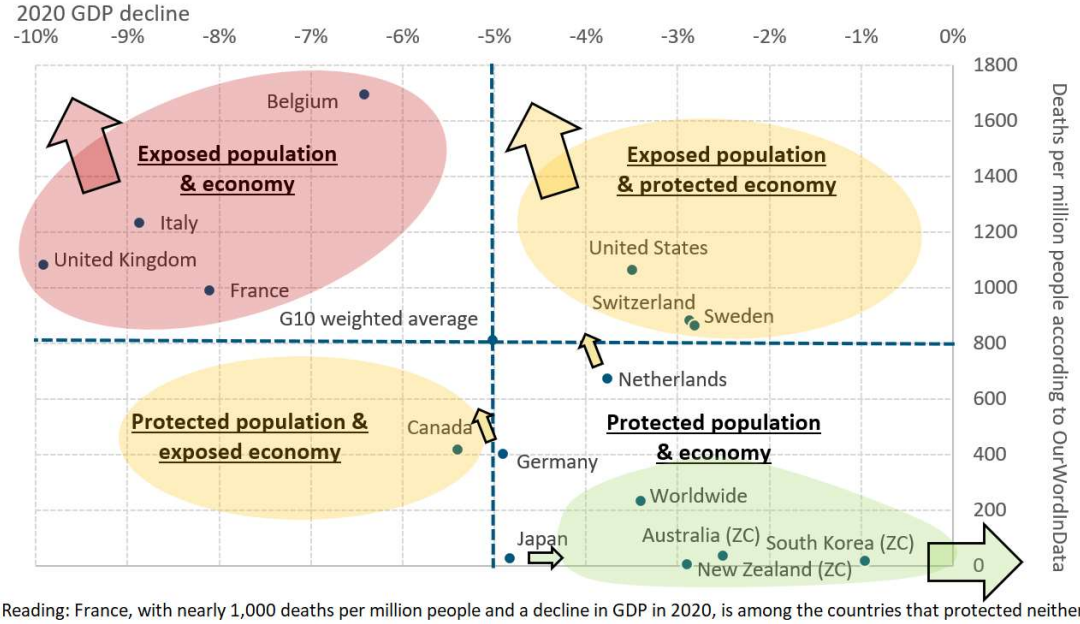
After 12 months fighting Covid-19, the data show the value of the elimination strategy and contradict the idea, widespread in France, that it was necessary to choose between protecting the economy and protecting public health, the notion being that these two goals were in conflict.

5. THOSE WHO DID BEST BENEFITED THE MOST IN BOTH HEALTH AND ECONOMIC TERMS

An analysis of the relative performances of the 11 G10 countries shows that the economy-health trade-off is not prevalent. Three countries (the United States, Switzerland and Sweden), accounting for 43% of the population of the G10 countries, have protected their economies more than their people. Canada, a country accounting for 4% of the G10 population, has mostly done the opposite, namely protecting its people at the expense of its economy.

Most G10 countries, and most of the G10 population, fall outside this paradigm. Four countries accounting for 25% of the G10 population protected neither their people nor their economies. These four are Belgium, France, Italy and the United Kingdom, with the worst performances among the G10 in both human and economic terms. In contrast, three other countries, accounting for 28% of the G10 population, did a better job of protecting their people and their economies (Germany, the Netherlands and Japan).[9]

Figure 2: Covid: The countries that performed best protected both their people and their economies in 2020



Reading: France, with nearly 1,000 deaths per million people and a decline in GDP in 2020, is among the countries that protected neither its people nor its economy. Sources: Institut économique Molinari, based on OECD real annual 2019-2020 GDP growth rate (March 2021), stats.govt.nz and OurWorldData (Cumulative confirmed COVID-19 deaths per million people) for the 11 G10 countries plus Australia, South Korea and New Zealand, which have applied the Zero Covid (ZC) strategy.

When we broaden the analysis to include the OECD countries applying the Zero Covid strategy, we see that the rift between defending the economy and protecting the population is simply not relevant. Australia, South Korea and New Zealand all had lower mortality and smaller declines in GDP. They have all done much better than the G10 average. This full-scale test, conducted on 82 million people, is very conclusive.

Taking the dynamics into account (see Part 8), we see a widening gap that favours the Zero Covid countries, perhaps to be joined by Japan. Their social and economic situation is improving steadily while that of the G10 countries continues to deteriorate. The economic and health benefits of the post-covid period in these countries continues to accumulate.

6. ZERO COVID: AN INVESTMENT THAT PAYS OFF

When the data are analysed over periods of less than a year, the economic merits of the Zero Covid strategy are even more significant[10]. The countries that got organised to eradicate the virus by means of a Zero Covid approach, or something close to it (South Korea), came out better on both scores. On the one hand, they experienced a smaller economic decline in the second quarter of 2020 compared to the countries that allowed the virus to spread to such an extent that their health systems were saturated (-4.5% versus -11.7%).

This observation is in line with analyses by the World Bank[11] and the IMF[12] noting the effectiveness and the more cost-efficient nature of early responses to the pandemic for households and businesses. The countries that were fastest off the mark in reducing mobility in order to avoid

contamination are the same countries that endured shorter restrictions and protected their growth more effectively. In contrast, the countries that were slow to react are paying high human, economic and financial costs.

Moreover, the Zero Covid strategy is also showing lasting positive effects. Restrictions, whether imposed by the authorities or self-imposed by people seeking to limit the risk of contamination, were less severe in the Zero Covid countries in the second quarter. In the fourth quarter of 2020, these countries had almost returned to normal economic activity. Their GDP was down slightly (-1.2%) compared to 2019 due to restrictions on dealings with countries still in the grip of the virus and subject to local lockdowns linked to specific outbreaks. Meanwhile, the decline in GDP was greater (-3.3%) in countries that had not eradicated the virus, with restrictions on movement arising from individual choices as well as from health policies.

Comparisons by country in the second quarter of 2020 should be taken with a grain of salt since some European countries have strayed from statistical rules that normally lead government output to be appraised at factor prices.[13] Even so, data show that the countries treating suppression of the virus's spread as an "investment" are doing better and are able to return to near-normal activity.[14]

Table 2 : Change in quarterly GDP compared to the same period a year earlier (%)

Country	2020-Q1	2020-Q2	2020-Q3	2020-Q4	Full year	Strategy
Germany	-2.2	-11.3	-4.0	-3.6	-4.9	Other
Australia	1.4	-6.3	-3.7	-1.1	-2.5	ZC
Belgium	-2.0	-13.9	-4.3	-5.1	-6.4	Other
Canada	-0.3	-12.7	-5.3	-3.2	-5.4	Other
South Korea	1.4	-2.8	-1.1	-1.3	-1.0	ZC
United States	0.3	-9.0	-2.8	-2.4	-3.5	Other
France	-5.6	-18.6	-3.7	-4.9	-8.1	Other
Italy	-5.8	-18.2	-5.2	-6.6	-8.9	Other
Japan	-2.1	-10.3	-5.8	-1.1	-4.8	Other
New Zealand	0.0	-11.3	0.4	-0.9	-4.8	ZC
Netherlands	-0.4	-9.2	-2.5	-3.0	-3.8	Other
United Kingdom	-2.2	-21.0	-8.7	-7.8	-9.9	Other
Sweden	0.1	-7.7	-2.2	-2.1	-2.8	Other
Switzerland	-0.6	-8.1	-1.6	-1.7	-2.9	Other
Zero Covid	**1.3**	**-4.5**	**-1.9**	**-1.2**	**-1.8**	**ZC**
Other strategies	**-1.3**	**-11.7**	**-4.0**	**-3.3**	**-5.0**	**Other**
Zero Covid advantage vs. other strategies	**+2.6**	**+7.2**	**+2.1**	**+2.1**	**+3.3**	

Source: OECD, data consulted 2021-03-08, and stats.govt.nz for the 11 G10 countries plus Australia, South Korea and New Zealand. Weighted averages. Reading: In the second quarter of 2020, GDP fell by 4.5% in the Zero Covid countries, 7.2 points less than in the countries applying another strategy, down 11.7%.

A similar observation was made during the Spanish flu epidemic in the United States a century ago. The cities that had made the greatest economic effort by going into lockdown for the longest time were also those that experienced the sharpest economic rebound. This is shown by a study[15] published by a group of economists at MIT and the Federal Reserve. New York and St. Louis, where social distancing and lockdown measures came earlier and for longer periods, had lower mortality rates and economic rebounds that came sooner and more sustainably, especially in terms of jobs.

7. ZERO COVID: MOBILITY THAT STANDS UP BETTER OVER TIME

The countries applying the Zero Covid strategy have experienced far less social and economic deterioration than other countries. Their macroeconomic decline has not been as great. Mobility data from Google corroborate this analysis at the micro level, showing that "workplace" traffic in the second quarter of 2020 fell by less in the countries applying the Zero Covid strategy (-14 % compared to -36 %). These data also show that Zero Covid countries retained a significant advantage with a 15% reduction in mobility in January-February 2021, compared to 28% in countries not applying a Zero Covid strategy. Zero Covid and similar strategies stand out even more when we focus on cafés, restaurants, hotels, non-food businesses and leisure and cultural activities in general. Google data show that traffic in these areas was down by 14% in January and February 2021, compared to 2020, in the countries applying the Zero Covid strategy. This is a much smaller decline than in the countries applying the mitigation strategy (down 35%). This dichotomy has also been found in a country like Canada, where some provinces have been applying a Zero Covid strategy.

Table 3 : Change in Google "workplace" and "leisure and retail" mobility indices compared to a 5-week benchmark period in early 2020 (%)

Country	Workplace				Retail and recreation				Strategy
	2020 Q2	2020 Q3	2020 Q4	2021 Jan.-Feb.	2020 Q2	2020 Q3	2020 Q4	2021 Jan.-Feb.	
Germany	-27	-18	-22	-29	-33	-4	-29	-57	Other
Australia	-27	-19	-15	-16	-29	-18	-10	-13	ZC
Belgium	-41	-27	-30	-26	-47	-11	-39	-43	Other
Canada	-44	-31	-29	-34	-37	-12	-24	-40	Other
South Korea	-6	-9	-8	-15	-7	-12	-15	-16	ZC
United States	-38	-31	-29	-29	-28	-15	-18	-25	Other
France	-43	-26	-28	-27	-53	-9	-34	-42	Other
Italy	-42	-23	-27	-28	-52	-7	-31	-39	Other
Japan	-20	-16	-11	-18	-24	-10	-7	-20	Other
New Zealand	-31	-6	-5	-12	-49	-9	4	-2	ZC
Netherlands	-32	-25	-25	-31	-27	-2	-31	-53	Other
United Kingdom	-55	-35	-34	-45	-67	-26	-38	-61	Other
Sweden	-25	-28	-24	-27	-12	-1	-18	-29	Other
Switzerland	-31	-21	-22	-27	-43	-11	-25	-50	Other
Zero Covid	**-14**	**-12**	**-10**	**-15**	**-17**	**-13**	**-13**	**-14**	**ZC**
Other strategies	**-36**	**-26**	**-26**	**-28**	**-36**	**-12**	**-22**	**-35**	**Other**
Zero Covid advantage vs. other strategies	**+22**	**+14**	**+15**	**+13**	**+19**	**-1**	**+10**	**+20**	

Source: Calculations by the Institut économique Molinari based on the Google Covid-19 Community Mobility Trend. Non-seasonably-adjusted data, weighted averages. We advise against comparing levels between countries on a one-on-one basis as local differences may be misleading.
Reading: In the fourth quarter of 2020, workplace traffic in countries with Zero Covid fell by 10% in the Zero Covid countries, 16 points less than in the countries applying another strategy, down 26%.

The case of Canada[16] is interesting. The country has followed an elimination strategy in four of its provinces (New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland and Labrador) as well as in its three northern territories (Yukon, Nunavut and Northwest Territories). Meanwhile, a mitigation strategy has been followed in the rest of the country (Alberta, British Columbia, Manitoba, Ontario, Quebec and Saskatchewan).

The Google data show that traffic in "retail and recreation" spaces declined by 24% in January and February 2021, compared to 2020, in the places applying the Zero Covid strategy. This is far less than the 42% decline observed in the rest of Canada, where the mitigation strategy is applied. Canada

thus benefits from a pilot test area that shows the superiority of the Zero Covid strategy and its feasibility in a democratic continental country.

Table 4 : A look at changes in Google mobility indices in Canada (%)

Province	Workplace				Retail and recreation				Strategy
	2020 Q2	2020 Q3	2020 Q4	2021 Jan.-Feb.	2020 Q2	2020 Q3	2020 Q4	2021 Jan.-Feb.	
Alberta	-40	-29	-29	-32	-31	-12	-22	-35	Other
British Columbia	-42	-32	-29	-29	-35	-14	-22	-29	Other
Manitoba	-36	-27	-30	-29	-25	-6	-30	-35	Other
New Brunswick	-37	-25	-24	-28	-22	-1	-11	-30	ZC
Newfoundland and Labrador	-37	-18	-8	-16	-26	5	1	-23	ZC
Northwest Territories	-36	-24	-15	-12	-33	-28	-27	-32	ZC
Nova Scotia	-42	-26	-23	-21	-29	-1	-10	-21	ZC
Nunavut	-22	-12	-13	-5	-28				ZC
Ontario	-48	-34	-32	-40	-42	-18	-26	-47	Other
Prince Edward Island	-34	-22	-17	-16	-25	13	0	-14	ZC
Quebec	-44	-30	-30	-35	-40	-9	-28	-47	Other
Saskatchewan	-35	-23	-20	-22	-26	-4	-16	-26	Other
Yukon	-33	-21	-17	-13	-34	-25	-31	-38	ZC
Zero Covid	**-38**	**-24**	**-19**	**-22**	**-26**	**0**	**-8**	**-24**	**ZC**
Other strategies	**-44**	**-31**	**-30**	**-35**	**-38**	**-13**	**-25**	**-42**	**Other**
Zero Covid advantage vs. other strategies	**+6**	**+8**	**+11**	**+13**	**+12**	**+13**	**+17**	**+18**	

Source: Calculations by the Institut économique Molinari based on the Google Covid-19 Community Mobility Trend. Non-seasonably-adjusted data, weighted averages. We advise against comparing levels between proinvces on a one-on-one basis as local differences may be misleading.

These data suggest that the French strategy, consisting of sustained efforts to mitigate the virus without eradicating it, stems from a miscalculation, insofar as it does not provide for a return to a near-normal situation.[17]

Measures such as curfews have been presented as more economical, with a cost of about €6 billion to €10 billion a month, compared to €15 billion to €20 billion for one month of lockdown.[18] But these respective costs have not been put in perspective regarding how long the constraints are imposed or the scope and duration of the economic and health gains that are generated, including subsequent actions that become necessary due to inadequate control of transmission.

Sound economic analysis involves comparing the intensity and duration of restrictive measures with the intensity and duration of the resulting benefits[19]. The data above suggest that the costly nature of lockdowns is not lasting when they help eradicate the virus and remove the restrictions on people and economies on a sustainable basis. Meanwhile, the beneficial nature of curfews and other half-measures fades away when we see that they extend over time, multiplying the economic and social costs, as is the case today in France.

This observation applies in particular to the leisure and cultural sectors. In France, for example, full-service restaurants have been closed for six-and-a-half months up to now since the start of the pandemic, and some are expecting eight months of closing, with a wave of bankruptcies looming.[20] Similar concerns and business losses are not found in the same proportions in countries applying the Zero Covid strategy, some of which have large tourism industries.[21]

8. THE KEY ROLE OF CONTROLLING UNCERTAINTY AND VISIBILITY

A crucial factor in analysing the effectiveness of the strategies that have been implemented is control over the uncertainty linked to the dynamics of the virus, found with both. After all, participation in economic and social life is a function of people's confidence in being able to take part without running the risk of falling ill, contaminating others or seeing health services overwhelmed.

It is not only government-imposed restrictions that reduce movement. Voluntary decisions by individuals to cut back on social life in the face of a fast-spreading virus also play a key role.

The Swedish example shows the importance of this phenomenon since, even without a lockdown, the decline in mobility was significant. This explains why Sweden's economic contraction was close to the levels observed in Scandinavian countries that went into formal lockdown.[22]

This has been shown by scientific studies both in South Korea and the United States.[23] The South Korean case is similar in some respects to that of Sweden because a strict lockdown was never imposed there. However, mobility was heavily reduced in high-spread areas in South Korea. This led the authors of an analysis to state that "a one per thousand increase in infections leads to a 2 to 3 percent drop in local employment in the absence of lockdowns. In comparison, non-causal estimates of this coefficient for the United States or United Kingdom, which implemented large-scale lockdowns, range from 5 to 6 percent, suggesting that about half of their job losses may be due to voluntary reductions in economic activity by private businesses and consumers, rather than a consequence of government-mandated lockdowns." [24]

The IMF estimates that, in developed countries in general, individual choices to practise social distancing account for more than half of the decrease in mobility, with a greater impact than government-imposed mobility restrictions.[25] Indeed, the prevalence of the virus is the most significant predictor of individual participation in social and economic life. The lifting of restrictions when the virus is continuing to spread does not allow for a full recovery. This explains, at least in part, the success of the Zero Covid strategy. By eliminating the spread of the virus, the return to normal life can be more complete. This is how Michael Baker, who devised New Zealand's strategy, explains support from the wealthiest New Zealanders[26] for the elimination strategy. "They said, 'We didn't get filthy rich by not being good at assessing and managing risk.' They were in it for the long haul." Where the elimination strategy is implemented, the end of the tunnel becomes predictable, and it is then possible to make reliable long-term plans, resulting in stronger economic performance and lower mortality.

Cross-referencing of quarterly economic and health data confirms the superiority of this approach in terms of visibility. The course taken by the Zero Covid countries is consistent, with sustained improvement in indicators (Figure 3). People in those countries benefit from a level of visibility enabling them to project their societies and economies into the future.

Figure 3: Quarterly dynamics of Zero Covid countries eliminating the pandemic and benefiting from social and economic visibility

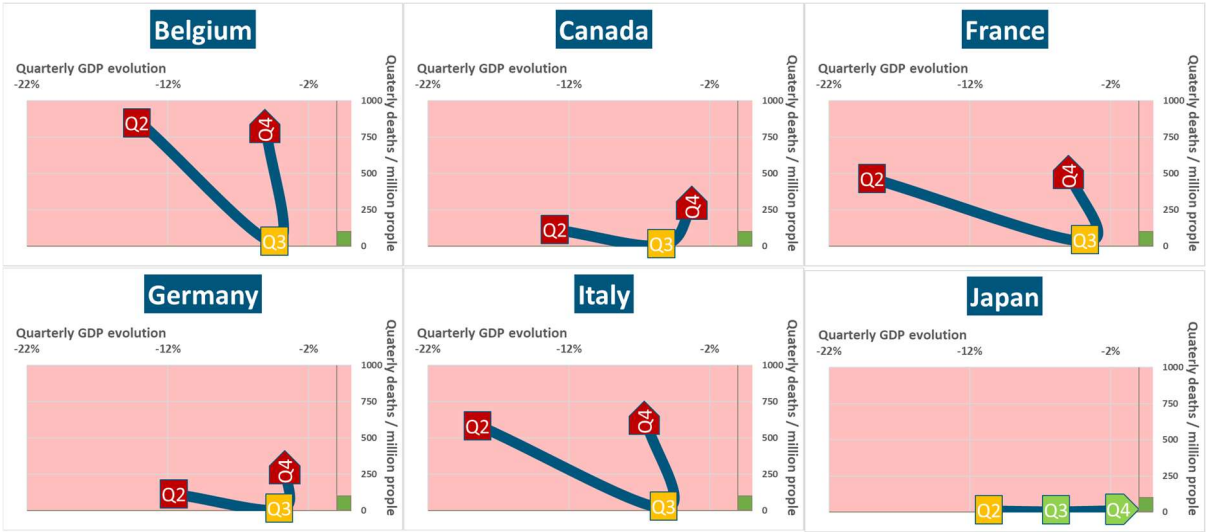
Reading: The closer that countries get to the green square in the lower right, denoting positive GDP change and low mortality, the more they move each quarter towards low social and economic costs from the pandemic. Sources: Institut économique Molinari based on actual 2020 GDP growth rates according to the OECD (March 2021), Stats NZ (https://www.stats.govt.nz/) and OurWorldInData (Cumulative confirmed COVID-19 deaths per million people).

In contrast, the course taken by the G10 countries has produced fluctuations, with the epidemic rebounding in the fourth quarter of 2020 everywhere except Japan, which is moving closer to Zero Covid. The mitigation strategy is causing them to seesaw, making it difficult to project into the future and thereby penalising societies and economies (Figure 4). This is especially problematic for businesses that depend on significant social interaction, which have been closed for months, as representative of the hotel,[27] restaurant,[28] culture[29] and recreation sectors have stated repeatedly.

From a tactical standpoint, the countries that have opted for a mitigation strategy, whether voluntarily or tacitly, have continued to suffer from deaths and economic setbacks. At this stage, everything depends on their ability to vaccinate people quickly and on a massive scale. The last few weeks have shown that this process is not as simple as expected. They find themselves forced to organise vaccination campaigns on the fly, whereas the Zero Covid countries make this an element that strengthens the robustness or "anti-fragility"[30] of their overall strategy.

New variants are contributing to more rapid transmission and lethality, and thus more limited opportunities to relax restrictions in view of higher disease and mortality within the mitigation framework, leading to even higher accumulation of economic costs.[31]

Figure 4: Quarterly dynamics in the G10 countries (other than Japan) that did not eliminate the pandemic and that lack social and economic visibility



Reading: None of these countries, other than Japan, is managing to move closer on a sustained basis to the green square in the lower right, denoting positive GDP change and low mortality. They are not going each quarter towards low societal and economic costs from the pandemic. Sources: Institut économique Molinari based on actual 2020 GDP growth rates according to the OECD (March 2021), and OurWorldInData (Cumulative confirmed COVID-19 deaths per million people).

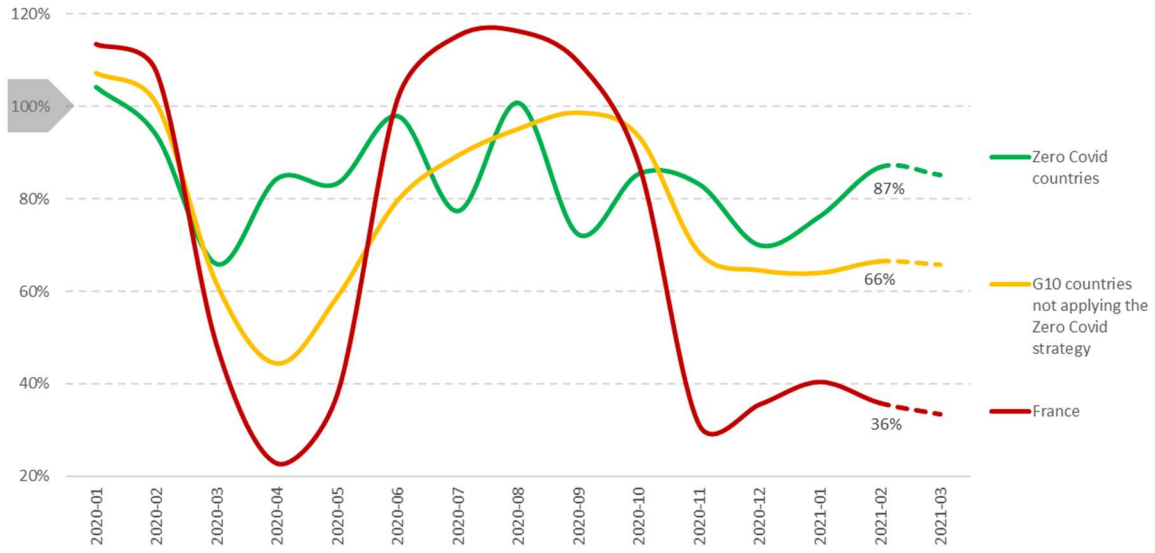
9. CONCLUSION

Analysis of data on mortality, economic growth and mobility shows that health, economic and social interests are aligned.

The countries that minimised the spread of the virus by means of a Zero Covid strategy are coming out of it the best. They are seeing significantly fewer deaths, their economies are performing more strongly and their people are not held back to the same degree by mobility restrictions, whether voluntary or mandatory. Nor have they had to cancel other medical treatment.[32] They are in a position to institute gradual and well organised vaccination campaigns, they have held the number of people showing long-term symptoms (long Covid) to a minimum, they can keep schools open without compromising the health of children or their teachers and, with little contamination, they are minimising the risk that variants will appear, with higher levels of transmission, lethality, and immunity evasion.

Countries in the grip of a significant spread of the virus have faced tough times. In addition to illness and death, reductions in mobility are quite substantial, and economic and social activity is crippled. The bill is especially high in France, with some sectors in almost total lockdown for many months (restaurants, cultural activities, etc.). Google data show, for example, that searches for the word "Restaurant" have been down sharply since late October, when prohibitions on receiving customers came into force in France. In February 2021, Google searches in this category were 64% lower than in February 2019. This decline was five times greater than in the Zero Covid countries, where restaurants are open and searches are down only 13% from February 2019 (Figure 5).

Figure 5: Restaurants better protected in the Zero Covid countries: the example of changes in the number of Google searches for "Restaurant" compared to the same month in 2019



Reading: In February 2021, the number of Google searches for "Restaurant" was down 13% in the Zero Covid countries compared to the same month in 2019. The decline was far greater in the G10 countries not applying the Zero Covid strategy (down 34%), especially in France (down 64%). Source: Calculations by the Institut économique Molinari based on Google Trends, searches for the word Restaurant (France and nine other countries), 레스토랑 (South Korea), Ristorante (Italy), レストラン (Japan) or Restaurang (Sweden). Partial data for March 2021, extracted on March 21, 2021. Averages of aggregations by country, weighted by their respective populations.

This calls for a thorough analysis of the costs and benefits of the Zero Covid strategy as compared to France's mitigation strategy, which is inconclusive at this stage, the expected benefits of which are in question.

Table 5 : Health and economic costs in France compared to the Zero Covid strategy

Health	Deaths per million people, Zero Covid countries	Deaths per million people, France	Death multiplier, France	Excess mortality, France
31/12/2020	23	992	x 43	63,300
20/03/2021	32	1,352	x 42	86,000

Economy	2020 GDP decline, Zero Covid countries	2020 GDP decline, France	Decline multiplier, France	Per-capita loss, France
31/12/2020	-1.6%	-8.1%	x 5	-2,200 €

Source: Calculations by the Institut économique Molinari based on OECD and OurWorldInData numbers. Reading: With 992 deaths per million inhabitants, France has 43 times more deaths than Australia, South Korea and New Zealand, which have applied a Zero Covid or similar strategy.

10. RECOMMENDATIONS

1. Invite an open dialog about the adoption of a Zero Covid strategy to include experts from countries that have implemented it thus far.
2. Rally the diplomatic network and parliamentarians representing French citizens abroad to broaden feedback on Zero Covid strategies.
3. Assign mandates to assess the advantages and disadvantages of strategies for fighting SARS-CoV2 by calling, in particular, upon French public organisations that analyse public policy (Conseil d'analyse économique, CESE, France stratégie, etc.)
4. Organise feedback from French communities that have implemented the Zero Covid approach (New Caledonia, etc.).
5. Support pilot projects in parts of France when local executives are receptive to the advantages of the Zero Covid strategy.
6. Bring the Zero Covid strategy into analysis of risks related to the health crisis at both the French and European levels. The European Union can be a major player in the strategy's coordination.[33]

11.FIGURES & TABLES

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