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Assumptions, plans and actual responses. The uncharted territory of the Covid-19 pandemic

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Abstract

The Covid-19 Pandemic will probably cause a profound economic crisis with particularly high impact for travel and tourism. This paper combines analyses of past plans and scenarios with information that has become available on the evolving crisis to evaluate potential recovery scenarios. This conceptual discussion paper combines the study of policy documents and scenarios with a study of academic and grey literature on the economic impact of pandemics. Whilst most plans and scenarios foresaw a steep crisis with a swift recovery, an economic lockdown was generally not considered. The consequences for consumer confidence will therefore be more severe.

Introduction

With continental Europe exiting from the first wave of Covid-19 infections, and cases still peaking in countries such as the USA, the UK and Brazil, it is probably premature to predict a further evolution of the pandemic. But as our hopes, fears and responses are largely shaped by either formal scenarios and plans or by more implicit expectations about the future, it is appropriate to rethink our strategic "if this, then that" reasoning with new information as it becomes available. This paper discusses plans, policies and underlying assumptions, to hypothesize about how events may unfold in this crisis.

Economic recovery scenarios are metaphorically described with four basic shapes. The V-recovery describes a profound crisis with a swift and full recovery. If the return to pre-crisis levels is slower and more hesitant, it is described as a U-recovery, or as the W we are familiar with since the financial crisis. If a steep crisis is not followed by a full recovery, and lower economic levels become permanent, this is the L-shaped scenario. McKinsey & Company have outlined nine different scenarios depending on two different variables, each with a high, medium and low value: "virus spread and public health response", on the one hand, and "knock-on effects and public policy response", on the other. Based on the developments in China, the authors considered the more optimistic scenarios —in which none of the responses would be at their most inadequate levels— as more likely, but without discarding the grimmer versions: "As we write this, countries in Europe and the United States have not yet taken the strong public-policy responses needed to effectively contain the virus" (Smit et al., 2020).

The emergence of a pandemic itself is described, in scenario planning terms, as a *wildcard* or a *Black swan*, which stands for a sudden, unexpected event with a high impact. The pandemic being qualified as unexpected, may be related to how it is experienced, as well as to its exogenous nature: the fact that it has not —at least not clearly or not directly— been caused by human actions. But objectively, even though the exact moment of the appearance of a new virus was impossible to predict, a global pandemic was totally expected: it had become a common element in numerous scenario studies, and national governments had been asked by the WHO to prepare their pandemic response plans.

Pandemic response plans and scenarios

Both categories —studies and plans— share certain inspirations and assumptions that have influenced responses around the world. A widely shared assumption is that the pandemic would be caused by an influenza virus, with the corresponding spreading patterns: the infection being transmitted by younger age groups, at schools and during school seasons, with especially the elderly protected by higher levels of immunity. Also, the economic impact of influenza pandemics has seen a decrease in the twentieth century, with an estimated approximate GDP effect of -4.8% of the Spanish flu (1918-19), -2.0% for the Asian flu (1957) and -0.7% for the Hong Kong flu pandemic (1968-69) (Burns et al., 2006). This trend has probably fed the confidence in V-shaped recovery patterns. An example is the scenario for an influenza pandemic in 2006 published by the European Commission, which predicted a 1.6% GDP loss in the year of the pandemic:

In absolute terms, the output loss in 2006 would amount to about 180 billion euros. However, for 2007 a recovery is projected and GDP growth would be one percentage point higher than the baseline projection. Eventually, the GDP of EU-25 would approach a level which is 0.75 per cent below the baseline because of the permanent decline of the population and thus of the labour force in Europe. Obviously, this is an average EU effect. However, it is likely that the Mediterranean



countries would be more heavily affected because of their larger tourist industry. (Jonung and Roeger, 2006)

In this study, as in many other scenarios, the economic damage is mainly caused by two factors: the loss of labour hours because of mortality and illness, and a drop in consumer confidence. The governmental pandemic plan for the UK foresaw a strategy aimed at minimizing health impact, minimizing the impact on society and the economy, and instilling and maintaining trust. In the case of a moderate pandemic, among the envisioned effects the following are given:

Prepare to implement business continuity arrangements for management of excess deaths, if necessary.

Concern among teachers and parents about infection spread in educational settings may lead to teacher and pupil absence.

Even in the case of a high impact pandemic, the effect would be:

Transport, schools, shops affected by sickness and family care absences. (Department of Health, 2011)

In these, as in many other plans from the two previous decades, an influenza pandemic was assumed to cause high mortality, which in turn would have a severe economic impact; however, a preemptive lockdown of the economy to control the health impact was not among the considered scenarios. The only vision of an economic slowdown of disastrous magnitude can be found in a non-governmental and non-medical source. A study by Visit Scotland scenario planners envisioned the following consequences, among others, if the country were hit by an influenza pandemic:

The outcome could be a 10-38% drop in GDP, measured over a 10-year period to allow for the effects to be absorbed.

The overall effect of scenario two reveal potential economic meltdown, making SARS and Foot and Mouth disease appear to be short-term minor problems that can be recovered from much more easily. Some sectors of the economy experience a 50% drop in output and considerable drops in employment and productivity, highlighting the interconnections between tourism and the wider economy. (Page et al., 2006)

The conclusion is that most countries, with the notable exception of Sweden, decided to implement measures different from those that had been planned. Speculatively, the change in strategy may of course have been induced by the much more limited preparedness for health care responses to a Corona-virus; at the same time, the example of the Wuhan lockdown may have become the model to follow elsewhere.

The other assumption derived from our knowledge of the influenza virus behaviour is that a pandemic can be expected to come in multiple waves, with increased severity from the first to the second wave (Olson et al., 2005, Andreasen et al., 2008, Ghosh and Heffernan, 2010, Herrera-Valdez et al., 2011). One of the hypothetical explanations for this higher impact is that follow-up waves will start from a greater geographical dispersion (Schumann, 2020). Moreover, prior economic damage will make a second wave more serious. A model of an 18-24 month pandemic with multiple waves in the United States predicts that work absenteeism because of illness and mortality will cause interruptions of food and medicine supply lines, hunger and social turmoil during a second wave (Huff et al., 2015). Again, the underlying assumption is an influenza pandemic. In the corona crisis, the working population may be less hard hit, and hence absenteeism may have less dramatic effects. On the other hand, different from what happened in earlier influenza pandemics, a second Covid-wave may hit countries whose economic resilience may have been eroded by first wave lockdown measures.

Health or economy, is that a dilemma?

The objective of lockdown measures is "flattening the curve", or adjusting incidence to health system capacities. In other words, infections are postponed to increase the probability of treatment; but they will not be avoided, as we also know from influenza pandemics (Fung et al., 2015). "Protecting a population from becoming infected with aggressive containment is like protecting a forest in the path of wildfire – unless continuous fire fighting efforts are made, the forest will eventually burn" (Franks, 2020). Whether



therapeutics or vaccines become available, will therefore be decisive; it will determine whether we will head in subsequent waves towards a scenario of "early disruption" or towards "global disaster" (Mosselmans et al., 2011).

As pandemic containment measures have been different from those that had been planned, we are moving in uncharted territories. The political discussion in different countries concerns the questions, what level of economic sacrifice is necessary to contain the health effects, and what level of economic sacrifice is acceptable. This is sometimes depicted as a health-economy dilemma, even though both sides represent a serious threat to wellbeing and may cause severe human suffering in the short or in the long term.

A first speculation is that the economic backlash itself will have further health consequences. Whilst this sounds plausible, findings are counterintuitive: unemployment rates are negatively correlated with mortality in general. Less traffic fatalities, work hazards, stress and more leisure time to do exercise or to seek medical advice in early stages of illness help explain this. The only cause of death that shows an increase in times of crisis is suicide; the conclusion can be that "that worsening economic conditions have negative effects on at least some facets of mental health, while improving most aspects of physical well-being" (Ruhm, 2000). Although these increased suicide rates probably stand for much wider suffering, the numbers are incomparable to those of Covid victims. In the blackest scenarios, suicides can be expected to increase with a yearly 85 for the Netherlands, 300 for Spain, close to the *daily* death rate of Covid victims in both countries (on April 30: 84 and 281, respectively).

It is hard to weigh the long-term socio-economic impact of Covid lockdown measures. They will be unevenly distributed (Karanikolos et al., 2013, Simou and Koutsogeorgou, 2014), with severe consequences for those with precarious or sole trader contracts, as well as those with limited financial buffers; to be specific, the crisis may become devastating for the young and the poor. Crisis measures are leading to unprecedented levels of indebtedness for countries; with permanently low interest rates this seems bearable for some countries, but not for all.

Economic aftershocks

The immediate effects of the lockdowns are clear and uncomplicated: a sudden drop in production and demand, with governmental support measures to help businesses and individuals bridge a temporary setback. Those industries whose activities are proscribed, such as travel, leisure and hospitality are of course among the hardest hit, while IT supplies, grocery delivery services and home entertainment benefit. Global supply chain disruptions will impact production through part and labour shortages. The fear of further supply shocks may lead to re-shoring industrial production from low-income to high-income countries; but "rather than helping workers at home, this trend will accelerate the pace of automation, putting downward pressure on wages and further fanning the flames of populism, nationalism, and xenophobia" (Roubini, 2020).

Oil prices have plummeted due to falling demand in combination with a "spectacular misjudgment" in Saudi Arabia to corner its international rivals by flooding the market. A storage shortage on the delivery date for May futures had prices tumbling to -38\$ a barrel. Although negative prices were temporary, the underlying problem of overproduction and storage shortages has not been resolved. This scenario is therefore likely to be repeated, and "the world of negative prices doesn't have a floor", meaning that -100\$ levels are imaginable. The consequences for oil producing economies will be far reaching —although we can only speculate what those would be— if prices remain below the cost of production (Blas, 2020, Thompson, 2020).

Consumer fear

Whereas pandemic action plans generally stressed the need to "instill and maintain trust" and to avoid social panic, that strategy would certainly not serve the imposition and enforcement of lockdowns and physical distancing. Rather, authorities seem to opt for instilling fear and public shaming for violators of curfews and distancing norms. The side-effect has been plummeting consumer confidence (Arnold et al., 2020). For a swift, V-shaped recovery, the premise was that consumer purchases would be postponed so that total



economic activity, over a longer period of time, would be minimally affected; falling consumer confidence makes that scenario improbable.

The inflationary risks of monetary financing are disputed (Ryan-Collins, 2015, Bonam et al., 2019, Abdih et al., 2018). On the other hand, supply slack, high unemployment, low consumer confidence and a collapsed oil market are factors that could make deflation scenarios plausible. Especially if political choices lead to new barriers for international trade, a prolonged stagflation, or L-shaped scenario, becomes possible.

Political backlashes

Right-wing anti-globalization and nationalist movements that had emerged before the crisis will find support for protectionist policies in the fear of interrupted international supplies. A historical relation between epidemic threats and xenophobic responses is already confirmed by recent anecdotal evidence (White, 2020). The differences in economic resilience between or even within countries may further increase distances and mistrust.

The state-backed economies that were shaped by the crisis can become permanent if the economic downfall becomes prolonged, if the need for health care funding strengthens the role of the public sector, and political support for state intervention grows. At the same time, the pandemic has not only increased public support for invasive health surveillance, but also for enforcement of imposed behavioural guidelines, such as physical distancing and travel restrictions. If a situation arises where poverty and social inequality contribute to rising crime numbers, a public desire for safety and security may spur a further presence of state surveillance.

Travel, tourism and hospitality during and after the crisis

In this context, changes in consumer behaviour will be determined by two drivers: in the first place, reduced purchasing power and consumer confidence, and in the second, fear of contagion. Behavioural changes inspired by hygiene concerns may be rational or they may not: the fear of the virus may cause people to avoid touching certain surfaces, to have close contact with others or to enter closed spaces with air circulation systems, but it may also lead to avoiding places or people from certain nationalities because of a perceived infection risk.

Mobility will be reduced because of physical distancing rules. Air travel is predicted to take five years to come back to pre-crisis levels (Ali, 2020, Jolly, 2020). Capacity will be reduced by supply disruptions and by distancing rules; prices will probably increase even though oil oversupply may temporarily mitigate this effect. Demand recovery will depend on consumer confidence and medical responses to the virus. Business travel demand may also suffer because of the experience gained with virtual meetings. Fear of recurring border closures may also put pressure on demand.

The recovery of tourism is predicted to happen in three different stages (Canalis, 2020, Halphin, 2020). The first stage is predicted to last until the end of 2020 with almost exclusively domestic tourism, and tourist businesses in survival mode. By the end of the year, short-haul international travel is expected to restart, with companies thinking about rebuilding their business. Intercontinental travel may only resume one year later, with visitor numbers back to "some level of normalcy" in 2022. While in some countries a faster recovery is expected (Twenty 31, 2020), the time-path can be considered optimistic if compared to air travel recovery estimates and other forecasts (Mayer et al., 2020). Obviously, those destinations that depend on international visitors and on events will be hardest hit; especially long-haul destinations without substantial domestic tourism will see a dramatic wipe-out of tourism (Liang-Pholsena, 2020).

More detailed predictions are speculative as they are influenced by too many uncertainties. Predictions that the crisis will cause shift in consumer behaviour towards more environmentally responsible forms of tourism (Hall et al., 2020) are not supported by evidence from previous crises. Even warning signals such as peeks in domestic tourism, preferred accommodation types or changes in restaurant expenditure may suggest temporary alternatives rather than permanent shifts.



The continued introduction of technological innovations in hotels will facilitate contactless transactions, but the effects of that are uncertain. A shift in consumer priorities —from "experiences" to hygiene and safety—is imaginable, but the longevity of this change requires close monitoring in the next year. Currently, operational changes in hotels are announced, such as new cleaning procedures and compulsory room vacancy in between rentals. Equally, it remains to be seen whether such costly measures can be maintained for a long time. For all those businesses where physical distancing seems incompatible with the very nature of their operations —such as small bars and pubs, music festivals, cruise ships—, we have to cautiously distinguish scenarios and predictions from "wishful thinking". Whilst many of these businesses will probably disappear, research is needed into a "blank slate" industry recovery scenarios after such a wipe-out.

Conclusion

- The current crisis is exogenous and global governmental answers are mostly unplanned. The economic consequences cannot be expected to be similar to any previous economic crises or natural disasters, as the sudden decline in economic activity is unprecedented.
- A serious economic recovery is contingent upon the developments of a medical response (vaccine or therapeutics). Without that, it is possible that subsequent, more severe, pandemic waves occur. Scenarios for pandemic influenza predict, in that situation, serious problems in food and medical supply lines. Whether that can occur will depend on the loss of labour hours due to illness and mortality.
- A collapse in consumer confidence and hygiene and safety concerns will impact demand; research
 will have to show whether these effects will be prolonged or even permanent. Recovery of travel
 and tourism will be cautious and phased. The economies of destinations that cannot resort to
 domestic tourism will suffer permanent damage.
- Some activities in hospitality and leisure can only be resumed when a vaccine becomes available. Others will face demand drops and high operational costs. Further research is needed into business strategies to address these challenges.
- Many businesses will disappear in the next two years. The recovery phase will possibly see high market concentration and the entrance of new investors.

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