



7. Towards a societal resilience

Author



Christophe
Degryse

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Only a new form of global 'societal resilience' will be able to absorb the impacts of the two megatrends: climate change and the Covid-19 pandemic

Christophe Degryse

Introduction

It is often tempting to imagine what the future might be like by looking to the past. Recently, several economists have turned to the study of major historical epidemics, from the Justinianic Plague (6th century) and the Black Death (14th century) to the influenza epidemic of 1918, in an attempt to understand what the economic and social impacts of the current pandemic are likely to be. And there are indeed a wide range of lessons to draw from these experiences: that the impacts of pandemics can last for more than 40 years (Jorda et al. 2020); that these impacts can be highly differentiated across countries or regions due to specific characteristics, such as sectoral exposure, urban concentration and differences in household behaviour (Barbara et al. 2021); that these events have historically ‘led to increases in the Gini coefficient [measure of inequality], raised the income shares accruing to the higher deciles of the income distribution, and lowered the employment-to-population ratio for those with basic education compared to those with higher education’ (Furceri et al. 2021); and that their impacts increase the risks of instability and social unrest (Barrett and Chen 2021) and may contribute to shifts of power within democratic systems (Gilens 2012).

However, while it is important to learn from the past, the pandemic we are living through today is taking place in an unprecedented situation: climate change and the threat it poses to humanity’s very existence. As the chapters of this volume show, the question of inequality is central to both challenges. Covid-19 has reinforced existing inequalities and created new ones, but the year 2021 has also seen a growing awareness of the regressive effects of a climate transition which will be more brutal than expected (Pisani-Ferry 2021), as well as of its major macroeconomic and financial impacts (ECB 2021). The conjunction of these two megatrends – the Covid-19 pandemic and climate change – is creating a new era of major political, economic and social disruptions, which the rest of this chapter will explore, arguing that only a new form of global ‘societal resilience’ will be able to absorb the impacts of this age of disruption. What that form will be, however, is still to be collectively defined and implemented.

A regressive climate transition



No action by any government has so far resulted in a clear reversal of the trends



Low-income households, as well as women, the elderly and the young, are more vulnerable to the impacts of environmental degradation

It will undoubtedly go down in history that 2021 was the year in which the absolute urgency of implementing an environmental and economic transition became apparent. One extreme event followed another. Europe experienced its hottest summer on record (Copernicus 2021), with droughts, forest fires (EFFIS 2021) and floods (<https://floodlist.com>). In the US and Canada, there were heatwaves, a 'heat dome' in the north-west, and hurricanes and floods in the south and on the east coast. Meanwhile, China and India saw torrential rains and deadly floods. This list is far from exhaustive, and thousands of deaths have been added to the more than two million people who have already lost their lives due to extreme weather events in the past half a century (WMO 2021a).

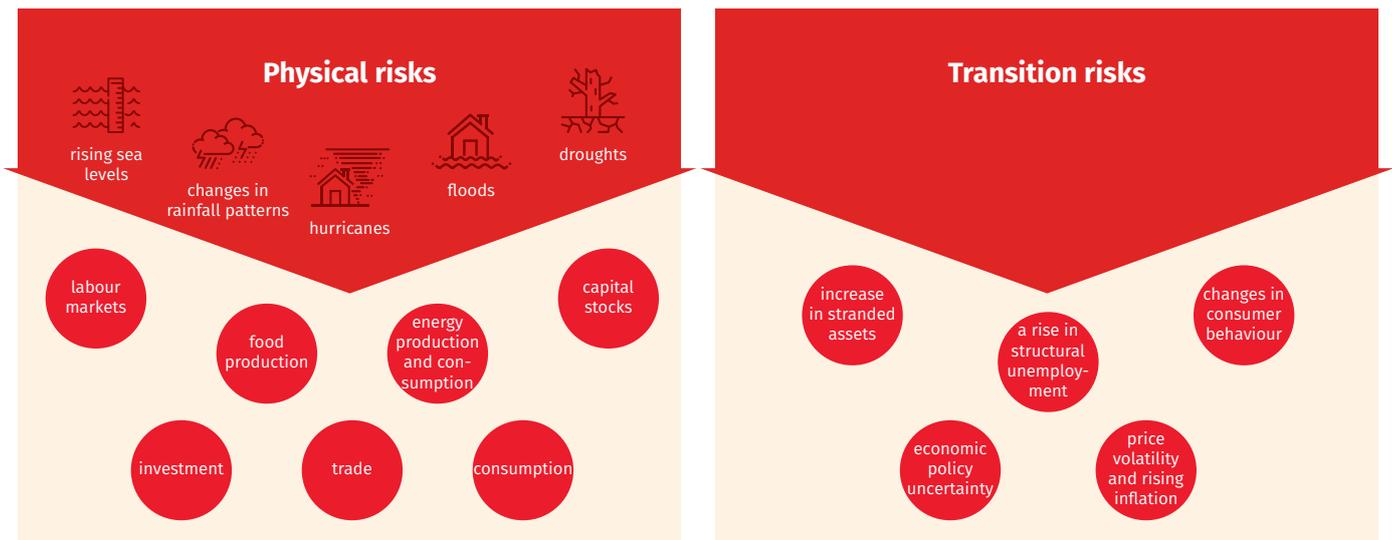
Humanity now seems to be entering the 'new world' that the IPCC experts have been predicting for three decades (IPCC 2021). The European Commission's Strategic Foresight Report, published in September 2021, underlines the importance of understanding the differentiated impacts climate change will have on the world's population, in terms of food and water insecurity, biodiversity, public health, and migration (European Commission 2021). To those who might have hoped that the climate policies implemented in recent years would be able to gradually reverse the trends in greenhouse gas emissions, the World Meteorological Organisation (WMO) had provided a firm rebuttal, observing that the 'concentrations of the major greenhouse gases - CO₂, CH₄ and N₂O - continued to increase in 2020 and the first half of 2021' (WMO 2021b). Although humanity seems to have reached a 'tipping point', in the words of the International Union for Conservation of Nature (IUCN 2021), no action by any government has so far resulted in a clear reversal of the trends. This paints a rather bleak picture of the future.

The current political awareness that global warming is now an immediate concern is accompanied by a recognition that the transition to a low-carbon economy must be accelerated, but that it will be much more brutal than previously thought. As Pisani-Ferry (2021) notes, this transition is far from being a 'pathway of roses' for many economic sectors: 'Decades of procrastination have turned the expected smooth transition into what is likely

to be an abrupt one' (Pisani-Ferry 2021: 1). He elaborates: 'The transition to net zero will imply sizeable relative price changes, accelerated obsolescence of the existing capital stock, significant reallocation of labor, and a major investment push' (Pisani-Ferry 2021: 4). The European Central Bank now supports this finding by highlighting the major macroeconomic and financial risks of the transition (ECB 2021). It distinguishes between 'physical risks' and 'transition risks'. Increased economic losses due to physical risks – rising sea levels, changes in rainfall patterns, hurricanes, floods, droughts, etc. – will have impacts on labour markets, food production, energy production and consumption, capital stocks, investment, trade, consumption, and so on. The ECB distinguishes these physical risks from 'transition risks', which include an increase in stranded assets, a rise in structural unemployment, changes in consumer behaviour, economic policy uncertainty, price volatility and rising inflation. These risks will put a strain on certain policies – in particular, the EU policy of economic, social and territorial cohesion, as the ECB stresses that the impacts will be unevenly distributed across Europe, with the south being more affected than the north.

Moreover, all indications are that the harshest consequences of the transition will hit the most vulnerable populations the hardest. The OECD has analysed the impacts of environmental degradation and environmental policies on four key wellbeing dimensions (health, income and wealth, work and job quality, and safety) (OECD 2021). It shows that low-income households, as well as women (see also 'Climate inequality by gender' in this volume, p. 119), the elderly and the young, are more vulnerable to the impacts of environmental degradation, particularly in terms of health. Air pollution and heatwaves, for example, which will become more intense and more frequent, will have a greater impact on these populations. As for workers, those who work outside (and who are often those with low incomes, such as workers in construction and public works, drivers, deliverymen, technicians, farmers, sea fishermen, etc.) will be more affected by heatwaves. Geographical inequalities are not absent from this picture either, as illustrated by the deadly floods that hit Germany and Belgium in July 2021: 'it was mainly modest households

Figure 7.1 Major economic and financial risks of the transition



Source: ECB 2021, own elaboration.

that were affected,' noted a local journalist, with the epicentre of the floods 'feeding primarily on modest working-class houses, dense and working-class neighbourhoods, and sometimes on facades of a different age' (Deffet 2021). In Belgium alone, more than 5,000 homes have been completely or partially destroyed.

And while the most vulnerable groups would, in the medium and long term, benefit directly, and in fact more than others, from the success of green policies, the OECD notes that the costs of these policies 'may put greater burden on low-income households and compromise their well-being' (OECD 2021). Carbon pricing, increasing fuel prices for road transport, limiting energy consumption... All environmental measures, with the exception of taxes on air transport, have a regressive effect (as observed by the

think tank Bruegel as early as 2018: Zachmann et al. 2018). Furthermore, the year 2021 has brought increases in food and energy prices, with both trends looking set to continue in the near future. 'The eurozone's consumer price index for energy has risen to its highest level since records began in 1996,' observed *The Financial Times* in September 2021 (FT 2021). The question of the unequal distribution of the costs and benefits of environmental policies among households and workers, with the resulting inflation mostly affecting items of basic need, will thus become the central policy issue in the increasingly near future. It is somewhat regrettable that the Commission's Strategic Foresight Report is silent on this issue, as the ETUC has pointed out (ETUC 2021), despite the fact that the OECD and other research centres have provided detailed analyses of the situation.

Endemic inequalities



200 medical journals called on governments to 'limit global temperature increases, restore biodiversity, and protect health'

There is evidence that the environmental crisis is closely linked to the health crisis caused by the Covid-19 pandemic (Beyer et al. 2021), but also to health in general (see, for example, articles in *The Lancet* and European Environment Agency 2021). In 2021, 200 medical journals called on governments to 'limit global temperature increases, restore biodiversity, and protect health' (BMJ 2021).

As the pandemic has progressed, hopes of total eradication of the coronavirus have gradually faded due to the technical, logistical, cultural, financial and economic difficulties of achieving a global vaccination rate sufficient to slow and then prevent the circulation of the virus – but also due to a lack of solidarity from rich, developed countries that have decided to provide a third dose to parts of their populations despite vaccination rates still being very low in less affluent nations. As the year 2021 has shown, and could continue to show in the years to come, a low global vaccination rate is fertile ground for the emergence of new variants that could prove to be more virulent and contagious. Consider the Ebola virus and its average case fatality rate of 50% (WHO 2018). At the same time, the ever increasing pressure placed on the environment by humans, mainly due to the destruction of wildlife habitats for food production, is heightening the potential for another pandemic of zoonotic viruses (Gruber 2017). The number of viruses on earth is estimated to be 1.5 million, of which only 3,000 (i.e. 0.01%) are known to health researchers (Bhaktaram and Edelman 2020). This will be a variable of growing importance in the future, to be included in any foresight analysis.

Between the optimistic but increasingly unlikely scenario of a complete eradication of the pandemic in the short or medium term, and the undoubtedly overly pessimistic scenario of a continuous multiplication of new, more virulent variants that could even endanger current vaccine protection, another intermediate scenario has started to be envisaged since summer 2021 by epidemiologists. This is the transformation of the pandemic into an endemic virus, which humanity would have to deal with on a constant basis, but in a less brutal manner (Todd 2021). Endemic refers to 'the constant presence and/or usual prevalence of a disease or infectious agent in a population within a geographic area' (Center for Disease Control and Prevention 2012). In support of this scenario,

epidemiologists point out that, historically, many epidemics have turned into endemic ones (tuberculosis, HIV, etc.) that humans have simply had to learn to live with.

In the medium to long term, such a 'long Covid' for society (i.e. with long-term effects) would change our perspective in public health terms: hopes for herd immunity would have to be abandoned. But it could also change our perspective in economic and social terms. In economic terms, a 'long Covid' scenario would entail the need for permanent rather than temporary adaptations in certain sectors and for certain activities that are highly vulnerable to the health threat, such as catering, trade, tourism, agriculture, air transport, and culture. More generally, such a scenario could call into question the logic underlying European and national economic 'recovery' plans. The aim of recovery could not just be a return to 'normal' in terms of the nature and intensity of economic activities prior to the pandemic, for reasons that are not only health-related but also environmental.

In social terms, the main concern will be the impact of a virus that has become endemic on the organisation and financing of healthcare systems, on the organisation of labour markets, and on society as a whole (education, mobility, culture, etc.). As the other chapters of this volume show (see also ETUI and ETUC 2020), the Covid-19 pandemic has already accelerated and reinforced inequalities between men and women, the young and the old, the self-employed and the employed, precarious workers and migrants, and so on. The transformation of the pandemic into an endemic virus could thus generate further inequalities: between those who will be permanently more exposed through their work and professional activities and those who will be protected; between those whose health status is more vulnerable and those who are more resistant; between those who benefit from social security and those who are excluded; between those who have the financial resources and skills to adapt and those who do not; and between those who are covered by complementary private insurance and those who are not. In the end, an even more polarised society would emerge, and from a global geopolitical perspective, the extant inequalities between developed and developing countries would become even stronger and more permanent.



A 'long Covid' scenario would entail the need for permanent rather than temporary adaptations

Technological solutionism?



Likely scenario: a climate transition with regressive effects coupled with a 'long Covid' that reinforces inequalities

A climate transition with regressive effects coupled with a society-wide 'long Covid' that reinforces inequalities: this scenario is of course not the only one that can be envisaged, but it appears, at the end of 2021, to be one of the most likely. And there will be other challenges, the main ones being: technological transformations and their impact on the world of work; demographic changes and migrations fuelled both by geopolitical instability in certain regions of the world and by global warming (UNHCR 2018); the decline of democracy, political rights and civil liberties; Europe's place in the world, both in terms of strategic autonomy and the demographic shift towards Asia and Africa; new international rivalries and conflicts (in particular between the United States and China, but also between the EU and Russia); and new tools of large-scale disinformation that spread mistrust, suspicion and even paranoia in democratic societies and that may serve as weapons in modern hybrid wars.

The European Commission is rightly analysing these trends and seeing in the concept of

'resilience' the hope of escaping from a very dark scenario. However, much of its faith seems to be placed, some may consider excessively, in the capacity of technologies to develop this resilience: through the implementation of intelligent health systems, the strengthening of data management, artificial intelligence, digital hyperconnectivity, and technological transformations that have, it says, a high potential for decarbonisation (European Commission 2021).

Apart from the fact that the Commission's above-mentioned report only devotes a short line to the increased energy demand of such a digital transformation, to the use of scarce resources and to electronic waste, it does not tackle head-on the central issue of the unequal distribution of the costs and benefits of the multiple transitions that await us, between workers, households and European regions. But if the climatic, health and technological challenges have been correctly identified, then one of the most important political conditions for these transitions will be 'societal resilience'.

Conclusion: what does ‘societal resilience’ look like?

The concept of resilience, understood as the capacity to recover quickly from difficulties, has been widely used in recent debates. The Commission has used it as a label for one of the financial instruments of the ‘Next Generation EU’ programme: the Recovery and Resilience Facility (RRF), which supports Member States based on their National Recovery and Resilience Plans. Other actors, particularly from the business world, have also used this concept during the crisis. Microsoft, for example, stresses that ‘resilience is found at the intersection of science, technology, and human ingenuity’.

However, in both of these examples, the concept of resilience has arguably been reduced to a question of either budget and investment (the approximately EUR 750 billion of the Next Generation programme) or technology (Microsoft’s artificial intelligence and data infrastructure). But while investments and technologies are certainly necessary, the radical institutional and societal transformations that lie ahead require a broader conceptualisation.

In this regard, the International Science Council has launched a pioneering research project entitled the ‘INGSA Societal Resilience Project’. This project is based on the observation that human experience thus far ill equips us to weather the multiple transitions ahead of us and the long-term uncertainties they will bring. It defines societal resilience as ‘the ability of a society or an organization to adapt or transform positively in response to significant transitions or threats to its wellbeing. Social cohesion is a critical precursor of the broader concept of societal resilience, which we define in practical societal and policy terms as a willingness of members of a society, accepting their diversity, to cooperate in order to prevail and prosper. The five key considerations are belonging, inclusion, participation, recognition and legitimacy’ (ISC 2021).

Beyond investments in infrastructure and technological innovation, therefore, societal resilience is about preparing populations for transitions, not in a passive way but by including them concretely in the dynamics of

these transitions. This concept deserves to be further developed and eventually implemented to help society cope with the transition to a possibly more unstable world. In this respect, the European Union’s strategic foresight work could also play an important role in developing these five key ‘considerations’, which could then be translated into policies:

- **Belonging:** How can people be encouraged to adhere to the values of a post-transition society? How can people be convinced that this society will be better, and how can we make sure it is so? In particular, how can educational systems be reformed and shaped to keep up with dynamic developments, equip children in lifelong learning skills, and prepare citizens for the challenges of tomorrow, namely the climate and digital transitions?
- **Inclusion:** How can we ensure that the costs and benefits of the transition are shared, and that redistributive systems (taxation and social protection) are adapted to play their full role in ensuring greater social justice in this transition, rather than fuelling extant inequalities? How can the economic and societal exclusion of people who are not equipped to deal with digitalisation be prevented so that they are not pushed to the margins of society?
- **Participation:** Contrary to the potentially demobilising effects of ‘technological solutionism’, which would leave it to technical innovation to meet all the challenges we are facing (‘To solve everything, click here’, Morozov 2013), it is the involvement and participation of all people – women, men, young people, the elderly, workers, students, pensioners, migrants, etc. – that will truly ensure the efficacy of the measures taken to implement the climate transition. How can such participation be mobilised? How can the transition be used to spark engagement in democratic procedures at local, state and EU levels to prevent the emergence of non-liberal democracies or anti-democratic autocracies?

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Beyond investments in infrastructure and technological innovation, therefore, societal resilience is about preparing populations for transitions



Societal transformation will be the indispensable third side of a 'resilience triangle', the other two of which are massive investment in new green infrastructures and sustainable technological innovation

- **Recognition:** How can we take the specific realities and situations of the various socio-professional categories into account in the measures to be adopted? And how can we take into consideration the needs and capacities of each individual (in terms of mobility, consumption, energy, etc.) so that everyone has a place in these transitions?
- **Legitimacy:** How can we forge the broadest possible consensus on the measures to be adopted, and give political, economic and social actors and all citizens the confidence needed to move society in this direction? How can we initiate and conduct debates on the future of the democratic state in the 21st

century – one that will be resilient against the forces of populism and that will take advantage of technological advances which could increase direct democracy?

This is a broad-brush representation of a concept that still needs to be refined, deepened and implemented. But we can already reflect on how building such a capacity for adaptation and societal transformation will be the indispensable third side of a 'resilience triangle', the other two of which are massive investment in new green infrastructures and sustainable technological innovation.

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