

COVID-19: Policy-Options, Effects and Resulting Scenarios (May 2020-end 2021)

Beatrice Heuser, Rebecca Harding and Christopher Miller¹

EXECUTIVE SUMMARY:

Over the coming 11-17 months (until end 2021), governments around the world are faced with the four options of (I) continuing the lockdown until a vaccine is found (estimated at 11-17 months from now), (II) periodic suspension of lockdown measures and their re-imposition until then, (III) a partial suspension of lockdown measures, and (IV) end of all lockdown measures. We estimate that (I) would have unaffordable economic consequences. (II) might be the optimal balance between the most humane treatment of the illness on the one hand (hospitalisation of all needing medical attention) and economic cost, but the economic costs would still be high, and could only be borne with most effective use of opening periods. Given supply chains and interconnectedness with the economies of other countries, this would work effectively only if very closely harmonised with those other countries' own lockdown periods. (III) would be economically more desirable but would lead to more cases needing hospitalisation than the NHS can cope with. Even this option would be economically more sustainable with close trading and other co-operation with EU countries. (IV) is unacceptable in terms of human suffering caused to infected populations, with the NHS being completely overwhelmed several times over and fatalities in UK alone well into six figures.

The prospects of the fiscal and economic recovery of the UK from 2022 depend very much on which of the above options are chosen now and in the coming 6 weeks. Everything else – Britain continuing to take a leading role in the world politically, economically, in defence and security – will flow from that. We sketch three possible resulting scenarios, each of which would set the UK on different courses in the recovery period after the immediate pandemic period.

¹ with contributions and input from Professor Massimo Palmarini, Dr Neil Munro, Dr Husein Aliyev, Dr Marcin Kaczmarek, Johan Norberg, Nicholas Myers, Pelayo Fernández, Jennifer Russi and Jacopo Grande

While studies are underway to forecast developments after a vaccine for COVID-19 is applied, this study attempts to unpack the Black Box of the immediate crisis months until a vaccine effectively puts an end to the pandemic.

In spite of the retreat to national interests that the Covid-19 pandemic has initially provoked globally, the UK government's decisions on how to deal with the resultant crisis in the coming 12-20 months has to take into account developments outside the UK. National efforts to control it will [depend](#) on tightening or loosening policies elsewhere, and on a steady supply of food and other essential commodities from outside the UK. The UK is and will be affected by the effects the pandemic itself and other governments' behaviour is having on the international stock markets, and by socio-political instability that might result in some regions near Europe or domestically in some major world players.

As a starting point for our analysis, we have identified four different courses of action among which governments of all states of the world have to choose. All four consist of some sort of balance between financial and economic costs to the state and the number of lives that might be saved, ranging from a strong preponderance on one side to a strong weighting of the extreme opposite. While all four options are theoretically available to all state governments, our very rough estimates suggest that hardly any country could afford Option I, and many countries, especially in the developing economies, cannot afford even the middle Options II and III. Thus different states will espouse different options; in other words, the individual options will not result in four neatly distinguishable scenarios. Nevertheless, we shall the different tracks on which world events could be set by the end of 2021, with all the implications this would have for the UK.

Assumptions:

Pharmaceutical solutions:

The best case scenario would be if pharmaceutical solutions could be found. One being explored is the mitigation of the illness with [existing medicines](#); another is that of harvesting plasma including antibodies harvested from recovered patients (or synthesised antibodies) can successfully cure the disease.² In a best-case scenario, these could begin to be applied in the summer of 2020. A vaccine is not expected before 11-17 month's from writing. In our estimates below, we will stick to the worst case scenario of having to wait for a vaccine, with none of the former two possibilities materialising.

Non-pharmaceutical solutions

In the absence of pharmaceutical solutions being found sooner to eliminate or mitigate the effects of the virus, According to Imperial College London Covid-19 [Response Group](#) (see graph below), the only alternative to continued suppression (keeping in lockdown) and letting

² Hervé Morin: « Un essai clinique sur le plasma sanguin débute en France », *Le Monde* (11 April 2020)

the pandemic eat through the population until herd immunity is established would be: short periods of lifting the shut-down, always followed by a re-imposition of the shut-down, until a vaccine is found. Only this, the Imperial College Response Team argue, can prevent the health service from breaking down. Any relaxation of the lockdown measures, they say, will lead to a resumption of infections. Writing in mid-March 2020, they used Nov 2021 as end date, as that +18 months for production of vaccine (estimated as +12-18 months). From this we conclude that there are the following Options (for governments of all states):

- I. Keep lockdown in place until the vaccine is found.
- II. Go for a periodic lock-down as in the ICL table above, with restrictions loosened at different times in different regions of a country, so that hospitals can help each other across regional boundaries if necessary.
- III. Keep partial lockdown in place (e.g. self-isolation of vulnerable people, no travel abroad on vacation, universities stay shut) until vaccine is found.
- IV. Abandon lockdown as all forms I.-III. above are unaffordable, keep up self-isolation of vulnerable people, hope for herd immunity.

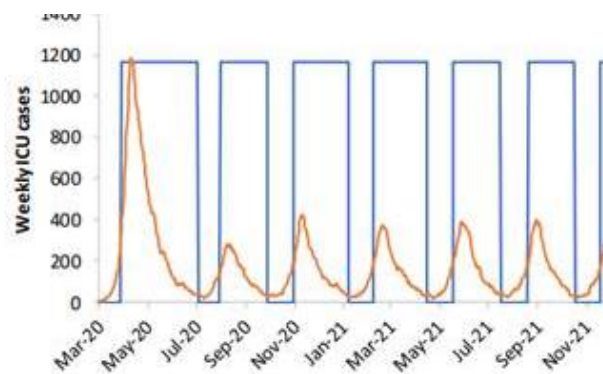


Figure 4: Illustration of adaptive triggering of suppression strategies in GB, for $R_0=2.2$, a policy of all four interventions considered, an “on” trigger of 100 ICU cases in a week and an “off” trigger of 50 ICU cases. The policy is in force approximate 2/3 of the time. Only social distancing and school/university closure are triggered; other policies remain in force throughout. Weekly ICU incidence is shown in orange, policy triggering in blue.

Balancing Costs

The cost to society of the lockdown(s) – unemployment, businesses losing income and even going bankrupt, loss of schooling and further education for young people – has to be balanced against the cost in terms of fatalities if there are no lockdowns. Absent lockdown a new wave of morbidity and mortality will arrive. While fatalities are particularly concentrated on older age groups, younger people also die, and not only when they are already suffering from other health problems. Finding the right balance is complicated by the fact that, even weighing only issues of health and fatalities, there is likely a ‘tipping point’ where one less bad outcome (a ‘flattened curve’ through social distancing) becomes two bad outcomes (deaths from COVID-19 + health issues from other causes related to or exacerbated by the lockdown).

From a certain point, lockdowns may start to send more people to overstretched hospitals for health problems other than COVID-19 infections: breakdowns in mental health, poor

supervision of their medication, domestic violence. Meanwhile, the one-year backlog in non-essential operations that already exists will be pushed out by another year, and even now there are reports that the NHS is suspending [cancer treatments](#). As the [Institute of Fiscal Studies](#) has put it, a “debate has started on whether the adverse health effects of a recession may be greater than the increased morbidity and mortality within the pandemic itself.” The [NHS](#) has been shown to be much shorter of beds per capita than most old [EU health](#) services.

It’s hard to say when these points will be reached – after 6 week’s lockdown, 3 months’ lockdown, after 12 months’ on-and-off lockdowns? But either way, moves to reduce pressure on health systems may eventually put pressure on health systems in a different guise. In several countries, lockdowns are suspended “for the sake of the economy”, while many severe restrictions are kept in place. This is perhaps the wrong way to think about it. It may be also “for the sake of those not yet infected”. We may be at a point soon face a significantly increased death rate in 2020 and 2021 one way or the other, only partly caused by COVID-19, with mortality from other causes increased due to deferred operations and suspended treatments (in the UK this includes cancer treatment!) in overstretched healthcare systems.

For developing countries, the picture is likely to be bleaker still: no lockdown would result in massive fatalities in societies where people live in very restricted quarters, especially where tropical climates have engendered a lifestyle which is in good part outdoors. Lockdown, in the absence of social welfare provisions for the unemployed, will lead to extreme impoverishment with entire families losing their income, and in some countries it can easily lead to starvation, not to mention to the spread of other diseases which cannot be adequately met alongside COVID-19.

Options for UK Government:

Option I: Keep lockdown in place until the vaccine is found

Keep lockdown in place until the vaccine is found (“putting lives above the economy”, doing “whatever it will take”) is in all likelihood unaffordable, especially given the short- and medium-term economic consequences of Brexit that have begun in 2016. All assumptions of economic growth are, at present, based on a smooth transition period up to December 2020. COVID-19 means that growth forecasts globally for the UK are currently being downgraded with latest estimates before the complete lockdown suggesting growth rates for 2020 of around 0.9% (OECD) compared to the IMF forecast of 1.4% at the start of the year. Even this seems utterly over-optimistic: if global trade diminishes by anything like the proportion predicted, we are facing severe and prolonged recession.

Option II: Stop-and-go: periodic lockdown and lifting of lockdown

A periodic lock-down and re-opening as in the ICL figure above, possibly with restrictions loosened at different times in different UK regions, so that hospitals can help each other across regional boundaries if necessary. This is likely to be the second-most costly option in terms of government expenditure, losses to business and high unemployment.

Not all businesses would be able to adapt to this pattern and stay productive and ultimately survive, but planning for periodic closures in the coming 11-17 months with clear dates given by May or June 2020 at the latest would help many prepare and secure supplies and plan for effective distribution. The pattern would take getting used to and be disagreeable for everybody, and even with this Option, many businesses would be unable to survive. But it would be very much easier to bear than a total lockdown from now until 2021. Some sectors – agriculture – would have to be excluded from closures, at least until the harvest season. For the tertiary education sector, it would bring no substantial advantages; the prospect for foreign students of coming to UK, having a week here and there of face-to-face contact and then sitting in expensive university accommodation for most of the year, without access to labs and perhaps even without access to libraries, is hardly worth the high fees. UK universities would de facto turn into Open University clones, at least for the coming academic year. Added to Brexit, this might permanently burst the bubble of the UK tertiary education sector.

The effects on the UK government's budget are already marked. [Projections](#) in early March were for total government expenditure to be £928bn as a result of the Coronavirus measures undertaken in the budget. By the end of March it was [estimated](#) that the additional budget measures could add as much as £100bn to public debt in 2020. Yet even this may be insufficient to counter the 44% drop in new case registrations announced in March 2020, a threatened collapse of the airline sector (reportedly with resources to last to the [end of May](#)) and the threat to key sectors of employment such as hospitality and catering. Moreover, the [WTO argues](#) that global trade could fall by as much as 32% in 2020. Trade represents over 60% the UK's GDP thus the country is likely to be severely impacted by any drop in global trade. Estimates of the total impact on GDP vary, but the [OECD's comparative analysis](#) suggests that the impact on the UK will be around -25% putting the economy in the top quartile of affected countries.

[Estimates](#) as of 8 April were that the Job Retention Scheme announced for the lockdown now will cost £ 30-40 bn over the 3 months for which the government has initially promised this support. But if further periods of lockdown are envisaged, the loss just for this expenditure over the time until the vaccine would easily rise to £ 100 bn. In addition, the cost for supporting businesses (including transport – from ferry services and Eurotunnel for vital supplies from the Continent to rail, coach and bus travel to airlines) would dwarf the current government SME support measures through guarantees which are estimated to be around £350bn.

The large-scale government subsidies designed to make up negative output of the economy and slowing demand will massively increase state debts. During the crisis, UK expenditure on healthcare, budgeted at £162 bn for Fiscal Year 2019-2020, will be very much higher, but after the end of the crisis, the expenditure cannot be reduced to 2019 levels. Given the already existing backlog of treatments by the NHS, it will continue to need about twice the funding of previous years even after a vaccine has been found.

At the same time, as the UK prides itself on its low-tax economy, its tax revenue and public spending per capita are relatively smaller than that of several of its EU neighbours: the UK Government would have the option to raise higher taxes in coming years to make up for the losses, and to resume austerity measures on a scale that would in turn have great knock-on effects in terms of poverty and even inadequate [health provisions](#). This would offset any medium- and longer-term gains which the UK Government is hoping to reap from Brexit. The consequences for the UK's long-standing productivity gap with Germany, France and the US

are hard to gauge, not least because of the dominance of the service sector in UK GDP. However, in the near term productivity is likely to fall and any longer term growth will be a function of the extent to which the labour market and production adapt to new technology-based ways of working post-crisis. It is difficult to imagine that defence procurement decisions would not be put off or that commitments already made would not be delayed if at all possible.

The British public is currently not psychologically prepared for this option, which means it would encounter more resistance if sprung upon it suddenly than if it were prepared and dates were announced for future lockdowns well into 2021 so that businesses, schools and administrations can plan around them.

Option III: Partial lockdown until vaccine is found, enabling large sectors to resume productivity

Keep partial lockdown in place. This should probably include the prohibition of larger accumulations of people, i.e. no entertainment events from sport to cinema, concerts, theatre, opera; museums, zoos and fun-parks would remain closed. The self-isolation of vulnerable people and social distancing would be encouraged not enforced, travel abroad on vacation would be curtailed, universities would stay shut and revert to distance learning for all of Academic Year 2020-2021, but most other businesses – probably excluding gastronomy and hospitality – open up again) until a vaccine is found. This would prima facie seem cheaper than Option I and more easily implementable than Option II in terms of government subsidies and more productive for industry and businesses (albeit not the higher education and sports, entertainment, gastronomy and tourist sectors), and entail less unemployment, but would go along with a high risk of numbers of infections exceeding NHS capabilities. Without pharmaceutical break-throughs, this option might have to be abandoned in favour of Option II. In addition, [French epidemiologists](#), drawing on the success of Taiwan, Japan, Germany and other countries, have concluded that

Extensive case-finding, testing and isolation are required to envision social distancing strategies that gradually relax current constraints (larger fraction of individuals going back to work, progressive reopening of activities), while keeping schools closed and seniors isolated. ... Extensive case-finding and isolation would allow the partial release of the socio-economic pressure caused by extreme measures, while avoiding healthcare demand exceeding capacity. Response planning needs to urgently prioritize the logistics and capacity for these interventions.

This has also been advocated by the German National Academy of Sciences [Leopoldina](#), and both the [French](#) and German governments are now imposing this measure.

On the up side, given current government subsidies, many businesses may bounce back if they could resume work fully or largely from mid-2020. But factoring in the effects of Brexit and the small likelihood of a smooth transition to full detachment, on 1 January 2021, even in this context, the economic climate would be strained. Much would depend on how many small businesses do remain solvent, the extent to which they can continue to trade domestically and internationally and, of course, the rate at which they re-employ furloughed staff. This will be determined by the numbers of businesses that can access loans and, perhaps more

importantly, have an appetite to access loans in an economic climate that is already uncertain and is now unpredictable.

On the down side, according to current epidemiological estimates, absent another lockdown, the inevitable new wave of infections will still overwhelm NHS capacities. The lockdown that began in late March has merely have flattened the curve of the first wave to stay within the limits in which the NHS could cope and delayed a second big wave with which it would not. Even if in the meantime, more PPE, ventilators and tests for health workers and carers are been acquired, and even after new emergency hospitals like the Nightingale Hospital come into service, cases requiring hospitalisation in the UK will exceed available NHS facilities. Fatalities might well still exceed [100 000](#) for UK alone by the end of 2020.

Acceleration of previous trends

Always assuming that severe restrictive measures will stay in place at least a year in all, in Options I., II., and III., a series of changes that had been underway well before will be catalysed to accelerate or become preponderant and lasting, while without this crisis they might not have done so. For example, IT has made it possible for people in many professions to work from home at least some of the time, and yet there was a strong cultural resistance to this in most countries. This cultural-psychological barrier is likely to be overcome now if people are forced to get used to this way of working. Without the lockdown, the old cultural barriers would likely have persisted for many years yet. The extent to which these lasting changes occur will be much greater Options I or II are chosen, and if no pharmaceutical relief is found until late 2021. If Options I or II prevail until summer 2021, a whole set of procedures in many sectors will have been suspended, changed and replaced irreversibly, where previously there was resistance to such change. Acceleration and catalysation of such changes will result in a world that functions substantially differently and thus looks different from that of 1 January 2020.

Changes are likely to include:

1. Large numbers of small businesses collapsing. The ONS estimates there are around 5.9m businesses in the UK accounting for some 99% of all businesses, 3/5ths of employment and around a half of all business turnover. If, as is currently assumed, 1/5th of these go out of business, then this impacts not just on GDP but also livelihoods of a large proportion of the workforce, many of whom could be on contracts, or indeed zero-hour contracts.
2. Larger businesses may use this as an excuse to go for the automation of a proportion of routine middle management roles (Industrie 4.0) and will not reemploy people as a result. The consequences for the labour market will be to accelerate a [shift towards greater automation](#) with the commensurate social impact of increased leisure time alongside permanently lower wages.
3. Impact on government budgets, which will not be *mainly* the actual cost of additional unemployment benefits, but the dependence on rates at which demand picks up subsequently. If it does not pick up after an extended crisis (up to mid- or end of 2021), then we might return to the 1970's in terms of government deficit and the prospect of the need for an IMF bailout cannot be excluded. This could well be worsened by a bumpy

transition out of the EU (and a smooth transition under current circumstances seems as unlikely with negotiations put off).

4. Macroeconomic orthodoxy would suggest that a fiscal boost at present will protect levels of demand in the economy and allow businesses to survive. The longer-term danger is that without a careful strategic approach to economic management, the likely rise in inflation resulting from demand picking up after the current crisis will itself damage the prospects for sustained recovery. A worst case would be the return of hyper-inflation and the need to return to the stringent monetary policies of the 1980s.
5. The social and political consequences would include long term unemployment, high inflation and the devastation of key sectors of the economy. These would affect different regions of the UK to different degrees, threatening the government's current "levelling up" policies and, not least, deepen the sense of "haves" and "have nots" that may lead to social unrest.
6. Cultural changes will include even lower church attendance, and possibly also a decline in religiosity amongst minorities of other religions. Cultural changes will also result from the fight for survival of many cultural institutions, including state-sponsored ones, such as theatres, orchestras, operas, ballet companies, cinemas, wildlife parks and zoos; many will disappear.
7. Previous strong resistance in some sectors to "virtual" attendance of board meetings, job interviews, academic examinations or to distance learning will be overcome. In future this is going to be standard procedure, including distance learning for military officers which had already existed in some places, but as a minority phenomenon.

Option IV: Abandon all lockdown, return to hope for "herd immunity"

If all forms of lockdown are abandoned as unaffordable, one would still keep up self-isolation of vulnerable people, but hope for herd immunity ("Putting the economy above lives"). Even then, the lockdown since 23 March has already put a big dent in the UK economy and many businesses, small and large, will not recover.

Rates of infection would result in workers and employees in all sectors falling ill, with somewhat reduced productivity everywhere. The NHS would be utterly overwhelmed, large numbers of people would be turned away from hospitals, increasing the proportion of mortality due to the absence of support with ventilators in the critical phase of their illness. A substantial part of the population as a whole would have the traumatic experience of witnessing the agony of loved ones who would normally be expected to receive intensive care; many old people – especially those living alone – would, if infected, experience extreme isolation and helplessness combined with unmitigated suffering. It is unlikely that 21st century Europeans could stand for this option.

EU, USA, Russia, China

EU

The same range of options sketched for the UK above must be under consideration presently by the governments of all EU member states, even though none has so far publicly articulated the option of a series of lockdowns and re-openings.

What would be the ideal options to embrace for all of the EU? If Option II (stop and go lockdowns) were chosen, extremely close co-ordination would be needed if lockdowns were phased to occur at different times in different countries and regions of countries, so that on the one hand, supply chains could be organised around such dates to optimise productivity, and on the other, so that health services could help each other out across regional and country borders.

As for the UK, Option II would come at a very considerable cost and experts forecast recession and worse; the Swedish economist Lars Jonung is speaking of the EU's "collective economic harakiri".³ The influential independent German Institute for Economic Research ([IWF](#)) in Cologne, for example, assesses the cost of the lockdown in Germany until end April 2020 as 5% of GDP.

Initially, all took governments unilateral measures amounting to varying degrees of lockdown, without co-ordination by the EU. Border closures had to exclude the flow of goods as the economies of Europe are so very interdependent. In late March and early April, this was decried as indicating the shrinking relevance of the EU, and a potential sign of its future demise. In several countries, especially the worst-affected Italy, anti-EU sentiment has grown rapidly. Italians accuse their partner-countries of abandoning them. Spain, which was already suffering much higher unemployment figures than its northern neighbours, has seen a further 900 000 lose their jobs since the government enforced lockdown. While there is no anti-EU party in Spain other than the Catalan separatist movement, in Spain, too, as in Greece since the beginning of the refugee crisis in 2016, there is a strong feeling that the richer EU members are not demonstrating sufficient solidarity.

It does not bode well for the future of the EU that the European Central Bank declined Italy's request for emergency funding, and that Germany has been unsupportive of the "Coronabonds" initiative. The Commission, however, should not be faulted for managing this crisis badly, as the co-ordinating of cross-EU responses has so far not been among its competences, but logic has little place in political perception.

This crisis will both be a touchstone for the future importance of the EU and for the re-nationalisation of politics. For the moment we continue to see both trends:

Again without much co-ordination, individual governments are announcing an end to lockdowns, all espousing some form of Option III with severe restrictions remaining in place, and most countries going for a progressive relaxation. In Austria, Spain and Italy, some categories of shops are opening again as they will in Germany from 20 April. Schools will progressively open again in Germany from 4 May, in France from 11 May. . Unilaterally imposed border closures, justified in terms of emergency suspension of the normal state, in

³ *Le Monde* (10 April 2020).

cutting off the flow of seasonal labour across EU borders is greatly troubling agriculture. Austria and Germany have resorted to flying in seasonal workers from Eastern European countries, and on 13 April, President Macron announced that France's borders with European countries would be re-opened, and Germany is also following suit.

Purely national measures are proving to be deficient in many areas. The weaker economies are having enormous difficulties getting a grip on the crisis (not to mention, dealing with its consequences) on their own and in isolation. Also any exit strategy from the current lockdown will have to include the reconstitution of supply chains across state borders, and would benefit hugely from [central co-ordination](#) from Brussels. There is thus also some renewed enthusiasm on several sides for more EU, not less, and the Commission has on 15 April issued guidelines non-compulsory in an effort to co-ordinate measures across the EU. So far, all governments that have announced an end date to lockdown has warned their populations that the situation has to be reviewed, but none has come clean of the fact that the espousal of Option III – openness in principle with severe restrictions still in place – may very well have to yield to one or more further lockdowns (Option II) if reinfection rates cannot be kept low. Option II would be infinitely easier to implement if further lockdowns – and transborder co-operation of the health services – were centrally co-ordinated. Currently it is unclear which of these two trends will prevail – that of the re-nationalisation or of new transfers of power and competences to the EU.

In the individual member states of the EU, there are many conflicting tendencies at work. Spain, France, Italy and Greece are likely to see the strongest popular resistance to the continuation of lockdown measures across the summer, both for simple reasons of climate and temperatures, and given a greater scepticism of government authority. This does not mean that restrictions will be respected more eagerly in Eastern Europe unless governments embrace more authoritarian approaches as now in Hungary. Currently, populations are psychologically unprepared for restrictive measure not to mention complete lockdown to continue beyond 1 May. There will be general protest in the media and social media if/once governments own up to their intentions of imposing further lockdowns. But once the initial shock dies down, many countries will accept this.

Throughout Europe (including UK and Norway), restrictions are both more necessary and more stringently enforced in cities than in rural areas, and concomitantly it is urban populations living in cramped conditions without gardens – typical of tenement buildings in most of Continental cities – that will most resent having to spend the summer indoors. Not only morbidity and mortality, but also the indirect hardship caused by the crisis which will affect different sectors and different countries to different degrees. In Austria and the Mediterranean littoral states, the tourist industries will be dealt perhaps the greatest blow that any one sector will suffer. In all these countries, populism, nationalism, and in Catalonia, separatism will be strengthened. Coupled with unemployment and other losses, this is where popular unrest will breed, easily capitalised by populist parties, but as none of these states have general elections scheduled in the period up to end 2021, lasting consequences are unlikely to make themselves felt before.⁴

⁴ General elections are expected in Romania in December 2020, in the Netherlands in March 2021, in Germany, the Czech Republic and in Bulgaria in late 2021.

Most EU countries will emerge from the coming year and a half with economic and fiscal losses that will make offers of Chinese investment look tempting; China has already for some time targeted countries like Greece, Italy and Hungary. Chinese influence, especially on the more vulnerable among the European economies, will grow as the US is retreating.

Some of the Scandinavian countries plus Switzerland might emerge unscathed from the crisis, but for all the others, there is a big choice to be made in the coming months as to whether to attempt closer co-operation with other EU states, or to continue to go it alone.

USA

The United States has little tradition of government-imposed restrictions, and a strong tradition of anti-federalism, self-help and a muscular defence of personal freedoms. Reports about gun sales having risen in numbers may be anecdotal, but clearly there is a cultural perception in some parts of the population of a correlation between crisis, restrictions, and danger – not primarily the danger of infection but coming from other humans or from government.⁵ While one might suspect that much the same sectors of the electorate voted for Trump as will object to restrictions on their personal freedoms, it does not necessarily follow that they would vote for the Democrat candidate in the presidential elections in November 2020.

The US administration was slow to embrace restrictive measures with predictable consequences especially for big cities with tightly-packed populations. Within a fortnight, around ten million Americans have lost their jobs. Perhaps more stringent measures (on the lines of Options II-III) will follow, with their inevitable economic consequences, but even after a very short periods of lockdown imposed in several states, there is considerable pressure from business and populations to revoke the measures. If the US economy takes a significant down-turn, this will affect the world.

The Federal Reserve has been willing to take a “whatever it takes” approach to shoring up the US economy. At face value, this seems to be in line with President Trump’s “America First” approach – support to US businesses, support for employment and near zero interest rates. What has relieved financial markets, however, is the swift action to include swap rates in the interest rate policy – in other words ensuring that the US’s export partners can borrow in dollars at the same rate as US businesses. This has strengthened the US dollar and effectively reinforces its hegemony in global financial markets and global trade. Prior to the Covid-19 pandemic, we were talking of the weaponisation of trade, technology and financial markets; the actions of the Fed suggest that the US dollar remains part of any broader strategy.

Meanwhile, President Trump sees his country engaged in a zero-sum struggle for world leadership with China, while the interest he shows in other parts of the world is much reduced.

It will be more difficult for any US President to justify the disproportionately high levels of US defence expenditure, and cut-backs will be difficult to avoid. This must contribute strongly to President Trump’s inclination to shed European and Middle Eastern commitments. Thomas

⁵ William Arkin: “The Military's Top Secret Plans If Coronavirus Cripples the Government”, *Newsweek* (18 March 2020)

Gomart, director of IFRI, calls the COVID-19 crisis the first of a “post-American world”, given that Trump has shown no international leadership whatsoever in it.⁶

There is no reason why Donald Trump’s sympathy for the present UK Government would wane, nor is there any reason why he would (in an assumed second presidency) make any trade concessions to the UK as a gesture of friendship. Moreover, with Brexit, the UK’s position as influencer within the EU that always aimed to keep European and US aims aligned has disappeared, and consequently also its influence in NATO has diminished. His relationship with the UK, as with the rest of the world, will remain transactional.

Russia

Russia is still at an early stage of the pandemic, although as of 10 April the number of cases exceeded 10 thousand. While Vladimir Putin had overly optimistically claimed on 17 March that the situation was [under control](#), numbers of cases have since increased and Putin was forced to impose a lock-down (“non-working days”) on 25 March, to last until the end of April. Even in the big cities, much of the public continues to ignore the official guidelines. Putin has delegated responsibility for the implementation (but not necessarily resources to cope with the crisis) to regional governments. This has been widely interpreted as Putin’s attempt to shed responsibility and blame governors in case of the pandemic’s mismanagement. Regions are taking divergent approaches: Chechnya has completely locked regional borders, going against the federal regulations, while e.g. Krasnodar region has hardly implemented any restrictions at all. The opposition, especially Alexei Navalny, criticises the government’s approach in social media, but the restrictions introduced, e.g. in Moscow, make it impossible to organise any protests.

Putin is using the COVID-19 to try to enforce more economic policy reforms at a time when it is difficult for the elite to resist them. Various bankruptcy reforms and populist stimuli alongside measures to impose harsher penalties for the elite moving their money offshore are being implemented. Generally, Putin tries to keep a soft touch on these policies since cracking down on the elite may win him popularity but generally convinces the rich to move more money offshore.

These measures are being coordinated through the new prime minister (the former tax director) and the Ministry of Economic Development. Putin himself is using the pandemic to show his leadership as defender of employees, threatening punishment for any employer who dismisses them. But the private sector is already suffering from the lockdown and it is not clear whether businesses (particularly small business) would be able or willing to observe the lockdown should it be extended beyond the end of April. 30% of business owners have sent their employees on unpaid leave, and that this will grow to 50% by [mid-April](#). There are no social safety nets in place, and few Russians have savings. The government has promised to pay out salaries, but the promise seem to have only extended to government employees. Russia can at best bring its government reserves of 12.8 trillion roubles, roughly 11.4 % of GDP, to this economic emergency. Public discontent with the regime will grow when millions are left unemployed.

⁶ *Le Monde* (9 April 2020)

For all Russians bar the very richest, publicly available health care is poor. Russian leaders could either be tempted to lift restrictions and count on herd immunity, while simultaneously seeking to conceal as much as possible the actual Covid-19 infection/death rates. (Russian social media are already full of conspiracy theories claiming that Covid-19 has been raging already in some regions for more than a month with thousands of people dead; all of which covered up by the Kremlin.) Or the Kremlin might try to use authoritarian lockdown measures to enforce Options II or III, risking devastating economic effects.

In the short-term, Covid-19 has created obstacles to moves that were to boost Putin's popularity and keep him in power: special 9 May celebrations of the WW2 victory 75 years ago with foreign VIPs like Macron attending, and the voting scheduled for 22 April concerning the amendments to the constitution that would allow Putin to remain in power by 2036. Even if the victory parade takes place (e.g. without spectators), its domestic morale-boosting and foreign propaganda effects will be much reduced. The amendments to the constitution can take effect without a public vote of approval (the formal procedure of constitutional revisions is complete); it is uncertain, however, if the Kremlin would be willing to take the risk of a backlash and push through the constitutional change during the pandemic.

Also in the short term, it has pushed Putin into a more conciliatory approach in foreign economic policy. Attempts to project soft power by sending medical supplies to Europe have backfired when their poor quality became apparent. More important is the change in oil politics. In March, Moscow withdrew from OPEC+ as it disagreed with El-Riyadh on the division of cuts; domestic producers strongly pushed for the withdrawal. But on 9 April the Kremlin agreed to serious cuts to the oil production with Saudi Arabia and re-joined the OPEC+ agreement, even though it is in Russia's interest to drive the price up again. Oil companies now probably face higher taxes that would compensate for a lower level of oil production. Russia still has financial reserves (both in the National Welfare Fund and in the Central Bank) as a safety net for the coming months. A higher oil price – for which some revival of the world economy is necessary – would help to keep these reserves at a level allowing for supporting the society and Russian business.

For the military, the message that is put out is that "everything is normal". The 1 April - 1 July spring draft, this year involving sending 135,000 young Russians (highest number in a while) to garrisons across the country, is still scheduled, but postponed until after 20 May. Russia is so far not cancelling military exercises (such as the very large exercise of the Pacific Fleet) and at the time of writing is still planning to go ahead with the 9 May VE-Day parade. For now, this hardly affects the fighting power of Russia's Armed Forces, but in any scenarios with recurring waves of Covid-19 and lockdowns, conscription as a manning tool will be more cumbersome.

There is a small chance that Russia would exploit the current situation for any military action abroad (or punitive actions against Chechnya for illegally closing its borders as a region of the Russian Federation), but we think it unlikely.

China

In China, there is a tension between the fears of the second wave of pandemic and the willingness to capitalise on its to-date success. The economic revival is the top priority of the

leadership. Although the re-opening of Wuhan on 8 April was intended to symbolize China's victory over the virus, it seems unlikely that the quarantine of the entire city, three month lockdown throughout China, aggressive testing and quarantine measures for individuals, and the universal introduction of other public health measures such as wearing masks and using phone apps to track and trace infections have done anything more than contain the virus. Further outbreaks and a phased series of lockdowns (Option II) are likely to continue, or else, with surveillance far exceeding that which has been introduced in Europe or America during the current lockdown, partial lockdowns (more like Option III), targeted at particular provinces/cities where the virus returns. Coupled with digital surveillance measures, China's authoritarian structure is probably able to make such a policy relatively successful.

The economic harm already done is considerable, and the most vulnerable sections of the population, such as migrant workers, the rural poor and the elderly have suffered the most and could present a risk to stability if their needs are not addressed. Therefore, we can expect renewed efforts by the Chinese state to redistribute wealth using the existing or newly designed social welfare systems.

As always, the regime will make social and political stability an overriding priority. Careful management of the news and manipulation of public opinion within China and, to the extent possible, overseas will be central to its efforts. Speculation about the true extent of epidemic in China has emerged based on reports about the number of cremations in [Wuhan](#) and also estimates of the [number](#) of journeys out of Wuhan before the lockdown was introduced. Compared with other countries which had more time to prepare, smaller populations, and lower population density, China's official death toll of 3326 by the time the day of National Mourning was held on [4 April](#) seems improbable, but China will treat it as a national security issue to make sure that its narrative of victory over the virus is maintained.

Chinese society has changed as a result of the epidemic. During the height of the first outbreak, there were reports of communities literally barricading themselves in. While the regime is unlikely to tolerate any kind of unofficial quarantine measures, Chinese society has probably over these three months become less trusting and more fearful. Some of this fear has begun to transform into xenophobia, particularly after the government started to announce that new infections were coming from outside China and to cover the course of the epidemic overseas on TV news, mostly without embellishment. Although the Chinese government has called on its citizens to treat foreigners equally with Chinese citizens in all matters concerning quarantine and control, regime propaganda is continuously recreating the image of a safe, controlled China and an unsafe situation abroad, and this is likely to affect how foreigners are received and influence Chinese attitudes to foreign travel.

Political repression has intensified as a result of the outbreak. Xi Jinping's original intention on coming to power seems to have been to create a more centralised, more controlled and less pluralised Chinese regime than the one the West became used to in the 1990s and first decade of the 2000s. The virus offers new opportunities to increase surveillance, notably through the now universal use of QR code apps which are ostensibly to identify contacts of covid-19 infections but can be easily repurposed to identify carriers of 'ideological viruses.' This was already being done in Xinjiang province to cope with a perceived tendency towards separatism [there](#). A less vibrant civil society and fewer social and economic spaces outside of direct government control seem to be likely side effects of the epidemic.

In terms of China's global economic position, the pandemic is a huge set back, albeit perhaps not as great as for Europe and North America, let alone the developing countries. As an effect of the COVID-19 crisis, some of its markets are drying up. Yet China's growth rate was slowing before the virus hit. This was probably not a result of the 2008 financial crisis, as China was relatively isolated from its effects as not exposed to sub-prime lending. More of a deliberate policy, it shifted from an emphasis on economic growth to exporting its economic model in the context of the Belt-and-Road initiative. GDP growth rates in China are set as national targets, with local government spending on infrastructure projects being the "go to" means of generating growth. It is in this context that China's leading economists are debating whether or not it is better to revise the current six per cent GDP growth target down to a more realistic three per cent (see [here](#)), or to reach for the stimulus levers again to try to achieve the original targets.

In terms of foreign policy, China is likely to continue its global PR campaign that portrays China as a leader in fighting against Covid-19 and attempts to compensate for losses to China's image caused by its early-stage mismanagement of the issue. China is likely to continue emphasising the value of its experience in tackling COVID-19, its willingness to help other countries materially and the importance of a multilateral, joined up approach. At the same time, it will [react](#) furiously to any questioning of its narrative of successful, calm management of the virus, and it will resist attempts by the US to weaken the WHO and any other UN bodies which the US perceives as being in China's pocket.

US-China relations could deteriorate further if the US continues to criticise China's responses. Beijing will be eager to juxtapose its efficiency with the US domestic failures and the lack of international leadership.

If the US continues to lose interest in multilateral solutions to global problems, China is likely to do likewise, without signalling to the world that this is the case. China will continue to pursue what it saw as its upward trajectory in world affairs, to focus on securing key resources through the cultivation of ties with developing countries, its Belt-and-Road Initiative, to robustly defend its sphere of influence in East Asia, and to pursue reunification with Taiwan. China can be expected to take advantage of any weakening of the EU by strengthening bilateral ties and making strategic investments in distressed countries of Europe.

In the near future, any foreign 'adventurism' on the part of China is implausible. Its potential to draw away the attention of the society is limited and it might harm the economy, the revival of which is the most important at the moment.

General

The policies espoused in Europe, the USA, Japan, Australia, China, Russia will have a considerable impact on the developing economies. The extreme lock-down in most of Europe leads to a very considerable reduction in the consumption of non-vital goods produced in low-wage developing economies. Also, in normal times most tourists come from these richer countries, and their absence is already devastating the tourist industries throughout the world, again with the worst socio-economic effects on countries without unemployment protection schemes.

Africa, Middle East, India, other regions

Even after only a few weeks of lockdown, global government debts will skyrocket in developing economies – preliminary estimates already suggest that government debt as a share of GDP globally could rise to anything between 15 and 20%. The economic consequences of the lockdown effected in India etc might necessitate a global rescue scheme like that of the Marshall Plan – only global. The role of the IMF and WTO will change as a result of Coronavirus, probably just after the time frame considered here. The implications of this for relationships between the richer and the emerging economies is that the latter will desperately need help, from concrete medical support to debt relief on a potentially unprecedented scale, from the former.

Africa is the last continent to face an outbreak of COV-19. More than 30 of 47 countries are reporting infections. While most now have testing capacity, the rates of infection are likely much higher than currently known due to population density in major cities and lack of mass testing. While some countries have imposed travel bans and closed schools (Liberia for example did so already on 16 March), social distancing and isolation will remain a challenge since many large families live together and work/economic precarity limits citizens' capacity to socially distance since many rely on overcrowded forms of public transit (i.e. hop on hop off buses) to get to work. Healthcare systems in Africa have some resilience in terms of dealing with a highly contagious and deadly disease due to lessons learned from recent outbreaks of Ebola in West Africa and in the DRC. However, focusing all public health resources on COVID-19 means that other more sustained health emergencies, like malnutrition and the outbreak of diseases like measles, will be put on the backburner. The combined stress on some countries will be such that external support will be needed in the form of personal protection equipment, medical staff, testing kits, and ICU equipment/beds.

The global financial downturn will also have an impact on African countries' economic resilience as this crisis unfolds. The continent's key trading partners, besides its own states, are Europe and China. Oil is the largest export sent from North African countries to both partners. Therefore, oil economies across the African continent are likely to suffer significantly as demand falls. The continent also provides many raw materials used for manufacturing in both regions, and demand in those sectors have also taken a downturn. Other African countries that primarily export a specific good (ie coffee from Ethiopia, cocoa from Cote d'Ivoire) will also suffer as global trade declines in the coming months.

Along with Venezuela, South Sudan and Yemen have been called the countries to most vulnerable the imminent Covid-19 outbreak. The countries around the Horn of Africa have at the beginning of 2020 suffered a devastating plague of locusts which have severely reduced the expected harvest. Coming on top of this, in an area east of the Great Lakes that has suffered greatly from civil wars in the last decades, this could well lead to new political instabilities. The locusts have affected also the south of the Arab peninsula where war-torn Yemen has suffered from famine for the past few years, reaching even into the border-area dividing Pakistan and India.

In India, the pandemic is striking just after months of considerable political unrest in reaction to Modi's nationalism which has a strong Hindu, anti-Muslim flavour. Early lockdowns to

isolate cities have already resulted in great distress for unemployed people sent back to their previous domiciles as public transport has ceased up, with thousands on the roads on foot in the countryside, threatened by starvation.⁷ Labourers paid on a daily wages are suffering particularly, and in mid-April there have been reports of day-labourer demonstrations. The government caused a flutter also for its trading partners when it suspended the export of hydroxychloriquin, currently thought to be potentially mitigating the effects of the virus (the suspension was lifted on 11 April).⁸ This small episode underlines the problems of unilateral actions by states in an interconnected economy.

As various industries in developing countries – especially cheap clothes manufacture and tourism – will be deeply affected by the lack of demand in the West, the ensuing unemployment in these sectors of the garments industry and hospitality affect especially low-income workers and will lead quickly to impoverishment against the background of lacking welfare provisions. The scale of this will depend strongly on when shops will open and socialising will resume again (with renewed demand for clothing) and travel bans will be lifted in Europe, the USA and Australia.

Sub-Saharan African and Indian societies are still more used to great poverty, infant mortality and lower life expectancies among sectors of their societies, as well as to lingering diseases as malaria or Aids. Nevertheless, against the background of political tensions predating the crisis, its poor handling by governments can trigger major political unrest in a number of countries. Stalled economies and the social upheaval of a major public health emergency may also encourage armed insurgencies in countries that have suffered from protracted conflict. Armed groups may capitalize on governments' distraction to take land and resources, attack government and allied forces in areas of weak security, or raid more remote civilian settlements. Such insurgencies and cross border armed activity may destabilize regional security and threaten fragile gains in countries looking to transition away from the precarity of conflict to stability and long term peace.

As and when a vaccine becomes available, it is to be hoped for the sake of all these disadvantaged populations that an equitable way of distributing it can be found, and that the richer and more powerful countries will not [buy up stocks of vaccines](#) as they have done with face masks in recent days.

Conclusions

Whether the current crisis will [“merely” accelerate](#) trends that were previously ongoing anyway, or whether it will change the world as we know it depends on the time it will take to find a pharmaceutical solution. A lockdown of one to three months suspends habits and procedures; a return to pre-crisis behaviour would be expected afterwards. By contrast, a lockdown or a series of lockdowns or very stringent social distancing measures that last a year or longer replace previous norms with new habits and procedures, and a return to pre-crisis behaviour is not the default but would need a collective agreement that this is desirable, and

⁷ Arundhati Roy: “The pandemic is a portal”, *The Financial Times* (3 April 2020)

⁸ *Le Monde* (12-14 April 2020)

an effort to make the changes. This crisis is likely both to accelerate and strongly increase trends and to catalyse developments that might otherwise not have become preponderant.

Any route out of the current lockdown will depend on the UK government's appetite for "Whatever it takes" actually to mean just it. These are unprecedented times and our actions will be determined, not just by our willingness to spend our way out of the crisis and impose additional controls on individuals (such as testing and technological control over social distancing and contacts as seen in South Korea). Rather, the impact of our actions will also be determined by the fact that, unlike other countries in the world, the UK is about to embark on an independent trade and security relationship with Europe that means many of its economic and political relationships with the rest of the world will also change. The UK is an open economy dependent on these trade relationships and our Coronavirus exit strategy has to be seen in this context.

The global setting in which governments have to manage the crisis will deteriorate greatly within the period considered. China and the USA will continue their unfruitfully-framed struggle for world leadership, and India is displaying nationalism and religious intolerance. Along with the developing countries it will experience catastrophic consequences, a largely unmitigated spread of the disease, extreme impoverishment of the unemployed and their families in the absence of social safety nets as whole sectors of their economy are starved of demand. Millions from Africa, the Middle East and Latin America will try to flee this misery, heading North. Despite the drastic consequences that this crisis will have for Europe and North America, this is not where it will cause the greatest hardship. Indeed, Europeans and Americans will have to prepare themselves mentally for the great need the developing world will have for their support after the crisis. Paradoxically, the emergence of these rich regions from the crisis with the least damage can help the rest of the world, if the rich are willing to share. Ironically, the lockdown measures have the side effect of a reduction of CO₂ emissions, but once they are lifted, many countries will default on their promises of investment to contain climate change.

To repeat, whether reality by the end of 2021 will look somewhat like one the following four scenarios depends very much on how the pandemic will develop (mutation of the virus, reinfection, ...), whether only non-pharmaceutical measures can stem its most catastrophic eruption in all or parts of the world, or whether a medical cure of sorts can be found earlier. But how governments manage the crisis in the coming 1½ years at this point is still for governments to decide. We think that Future Scenario A would be in the best interest of all, Future Scenario C the worst, with Future Scenario B also resulting in poor conditions for post-COVID-19 recovery.

Future Scenario A: UK in co-ordination with EU countries adopts Option II or Option III

The recession is unlikely to be a sharp downturn followed by rapid recovery (V-shaped) and the speed at which global trade and demand pick up will be an important feature of the need for UK measures to be continued. Much depends on whether EU markets, our major export destinations at present, recover sufficiently to pull the UK out of its own recession quickly, and whether the reconstitution of supply chains can be worked out in tandem with the countries

into which these tap. Re. Option II, optimal solutions would only be found if all EU countries plus the UK co-ordinated rhythms of lockdown and closure very closely and industry and other business could plan in great detail and well in advance how to restart supply chains and keep them going. This would require a departure on all sides from the purely national decision-making which has prevailed so far.

Co-operation of this sort would not necessarily have to entail opening borders to labour migration or tourism. For the UK (bar its tourist industry, some agricultural sectors, and tertiary education sector), this would be a win-win situation.

All reliance on supplies from developing economies carries with it the risk of being affected by the COVID-19 even more heavily than Europe and by ensuing political unrest. The knock-on effects on Europe would be economic and, in areas close to Europe, migratory and political. Substituting close economic relations with USA and/or China equally ties the UK to potential political and economic instability (USA) and other dependencies (China).

Both Options II and III will require the government to maintain and extend its current level of support to the UK economy for longer than the three months currently expected with a taper as individuals return to work and are furloughed on an intermittent basis. If the total cost of the current employment and self-employment support packages ends up at around £110bn (or 5% of GDP) for three months, then any extension, say over a longer period to the end of August 2020, would eat further into government borrowing to around 10% of GDP.

The core advantage of this approach lies in its international coordination. It means that differential recovery rates in the UK and EU can have “pull” effects on demand in neighbouring economies while the risks of re-infection prior to a vaccine being delivered are minimalised.

This course of action would optimise chances for the UK and other European economies to resist negative effects of unpredictable developments in the USA, China, and India, and to have the economic resilience, despite great national debts to emerge strong enough to be able to help developing countries.

Future Scenario B: UK and EU take different courses of action (Option II and Option III).

A stop-go approach (Option II) to our knowledge is not openly discussed by any EU member state except as a fall-back if Option III (no lock-down but heavy restrictions) leads to a catastrophic surge of new infections. But either Option II or Option III requires extensive co-ordination within EU.

Any sustained economic stimulus will be similar in terms of its impact on government borrowing under any scenario – the impact of taking a different approach to other countries will depend on the speed at which the economy can recover. Divergent approaches to releasing the lockdown brings with it import and export log-jams, and getting back to smooth-flowing trade in both directions will take months if not more than a year. With resuming trade and travel, re-infection is the biggest threat to a long term move away from the current global lock down. For the UK government, a stop-go approach has some attractions in that it allows the economy to return to normal temporarily – the hope would be that the peaks and troughs that this would create would become less marked over time.

However, if the EU remains in some form of lockdown or more gradual return to normal, the UK's exports markets and supply chains will be affected. The UK is highly dependent on the EU for its trade (approximately 49% of the UK's exports are to the EU). More than this, the UK's largest export sectors, automobiles, engineering and machinery, electronics, pharmaceuticals and aerospace, are heavily integrated into EU structures. Above 60% of the UK's trade with the EU is in these five sectors alone. If these supply chains do not pick up because demand remains weak in the EU, then the UK's manufacturing and services base will suffer as a result.

This course of action would accelerate the breaking of economic links between post-Brexit Britain and the EU, but the short-term economic costs of doing so would exacerbate the costs of Brexit. If the UK chose Option II, it is unlikely that the US or other trading partners further afield would want to work closely in the short term with UK businesses subject to periodic closures, and they would not vie to replace EU trading partners quickly.

If the UK chose Option III without any co-ordination with the EU countries, and other trading partners like the USA, Canada, Australia, India or the Asian Tigers (Taiwan, Singapore, South Korea) and Japan might step in, the cost and time it would take for all the required links to be forged to replace those currently still existing with Europe should not be underestimated. The gravity model predicts that distances continue to be crucial obstacles to trade. China would be happy to take advantage of opportunities for collaboration and joint productions. Tying the UK more closely to any of these economies would also mean making it vulnerable to spill-overs of detrimental effects of the COVID-19 crisis on their economies.

Future Scenario C: Unco-ordinated national decision-making and measures continue.

In this scenario, France and Germany cannot agree on a joint leadership role, Macron's attempts to take the lead fail. The UK is not a player in the EU and thus cannot influence EU member states.

Any uncoordinated action runs political and economic risks. There are signs that there are tensions within the EU about rescue packages that extend to a full "transfer union" with full and shared responsibility for the recovery packages. This is essentially the concern of "thrifty" economies like Germany and the Netherlands who have struggled with austerity and are reluctant to see their surpluses used to support more profligate nations and is an argument that has prevented full monetary union across the Eurozone.

So far, every nation within Europe has taken its own fiscal measures, outside of the Maastricht constraints for government borrowing – even Germany has taken off its automatic fiscal stabilisers in order to deal with the crisis. Germany is, however, better placed to weather the financial storm because of its budget surplus prior to the crisis. The post-crisis challenge within Europe will be that the relative borrowing of weaker nations, particularly Italy and Spain, will be proportionately higher than the stronger nations such as Germany. This could put undue pressure on the euro exacerbating the imbalances within the eurozone. If this scenario came about, it could usher in the demise of the EU in all but name, and a return of Europe to a configuration of politically unstable countries with high unemployment and great financial problems, and politically more stable status quo powers, living cheek by jowl. Historically, this

has not been a configuration favourable to peace and security. Moreover, this scenario would leave many small and medium-sized countries attempting to fend for themselves entirely vulnerable to the global trends and competing forces that will be unleashed as the longer-term economic, social and political effects of the COVID-19 crisis.