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Change only through crisis? Reflections on strategies for paradigm shift in an age of coronavirus and environmental breakdown

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CHANGE ONLY THROUGH CRISIS?

Reflections on strategies for paradigm shift in an age of coronavirus and environmental breakdown

Laurie Laybourn-Langton*

Abstract

The emergency measures undertaken in response to the COIVD-19 pandemic constitute an unprecedented break from the norms and practice of the prevailing political-economic paradigm—the predominant set of economic theory, policies and narratives. Public health has always been a major driver of changes in political economy because it is a systems-focused approach, providing an effective mechanism for conceiving of and acting against the failings of socioeconomic systems. Into the future, the nature of crisis is changing, foremost as a result of critical anthropogenic destabilisation of climate system and the wider biosphere. The resultant increasing frequency and severity of environmental shocks can be transmitted across socio-economic systems, which are already experiencing acute stress, destabilising them over a period in which they must undergo rapid structural change—all of which presents unprecedented threats and opportunities to those seeking paradigmatic change.

JEL Classifications: B20, E65, N14, N92, N94, Q00

Keywords: political-economic paradigm; pandemics; environmental breakdown

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SUMMARY

The emergency measures undertaken in response to the COIVD-19 pandemic constitute an unprecedented break from the norms and practice of the prevailing political-economic paradigm—the predominant set of economic theory, policies and narratives. As in other periods of crisis, many actors across society wonder whether such changes will endure beyond conditions of emergency, precipitating an epochal shift in the political-economic paradigm. Whether observing or urging change, perspectives on how crises can shift political-economic ideas and practice are partly founded on historical experience of this happening. Much commentary on the priorities for economic policy coming out of the pandemic have drawn on historical analogies pertaining to previous periods of crisis and change.

Public health has always been a major driver of changes in political economy. This is because public health as physical reality, discipline and practice is systemic, providing a particularly effective mechanism for conceiving of and acting against the failings of socioeconomic systems to meet human needs. Human health cannot be separated from the health of our societies and the wider world; ill health, from pandemics or otherwise, acts to pointedly expose the intersections of social, economic, political and environmental forces. Consequently, in recent years, a large body of literature examining the social, commercial and environmental determinants of health have provided emphatic proof of the inadequacy of the prevailing political-economic paradigm to meet human needs to acceptable standards or even at all, and, as they have done throughout history, provide us with insights that can help chart us away from a present—and future—of persistent and compounding societal ills. It is in this way that pandemics in particular and public health in general can be seen as a special case of those crises—drivers of change—that can precipitate enduring shifts in the prevailing political-economic paradigm.

However, the nature of crisis is changing. Human activity has altered the functioning of biogeochemical cycles that regulate the Earth's life support systems, making humans the dominant driver of the overall environmental state of the planet. The resultant environmental destabilisation encompasses more than just climate breakdown, stretching across many areas of nature and natural systems—including soil, biodiversity and the oceans—driving a complex, dynamic process of overall 'environmental breakdown' of unprecedented scale and pace. The resultant increasing frequency and severity of environmental shocks will be transmitted across socio-economic systems, which are already experiencing acute stress, destabilising them over a period in which they must undergo rapid structural change. As a consequence, the new 'planetary state' inaugurated by environmental breakdown requires those seeking change to

question the use of prevailing heuristics of change, particularly current strategies of 'change through crisis', and to seek new skills and actors to form part of an ecosystem of influence capable of driving the necessary scale and pace of change under conditions of growing destabilisation.

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1. INTRODUCTION

"There have been as many plagues as wars in history, yet always wars and plagues take people equally by surprise."

- Albert Camus, The Plague, 1947

'Unprecedented' is the watchword of the COVID-19 pandemic. Rapid transmission led countries to take the unprecedented step of halting a range of social and economic activities as a means to protect health and health systems, effectively prioritising a reduced infection rate over existing measures of socioeconomic development, such as compounding material growth. Unprecedented levels of state support were mobilised to ameliorate the resultant damage, including the blanket payment of private sector wages. As such, government intervention in the economy was of a type unprecedented in peacetime, at least in Western nations. In responding to the emergency, these actions constitute an unprecedented break from the norms and practice of the prevailing political-economic paradigm—the predominant set of economic theory, policies and narratives. As in other periods of crisis, many actors across society wonder whether such changes will endure beyond conditions of emergency, precipitating an epochal shift in the political-economic paradigm. Some actively seek such a shift, framing alternative analyses, narratives and policies in the context of the pandemic, exploiting the intellectual and political potential inherent in this moment of disjuncture.

Whether observing or urging change, perspectives on how crises can shift politicaleconomic ideas and practice are partly founded on historical experience of this happening. Much commentary on the priorities for economic policy coming out of the pandemic have drawn on historical analogies pertaining to previous periods of crisis and change. For example, the Financial Times editorial board were one among many who drew on the experience of the post-war shift in political economy, declaring that "the leaders who won [World War Two] did not wait for victory to plan for what would follow."¹ Supply shocks and high unemployment have led some to point to the crises of the 1970s (Rogoff 2020). Others fear an economic catastrophe akin to the Great Depression.²

The experience of epoch-defining crises often dominates the very conception of how change can be achieved. This view is epitomised by an off-cited quote from Milton Friedman,

¹ "Virus lays bare the frailty of the social contract," the Editorial Board, *Financial Times*, April 3 2020.

² See, for example, "Coronavirus: Worst economic crisis since 1930s depression, IMF says," *BBC*, April 9, 2020.

taken from his influential book *Capitalism and Freedom*, and referring to the efforts of an intellectual cadre of which he saw himself as a leader (Friedman 1962):

"There is enormous inertia—a tyranny of the status quo—in private and especially governmental arrangements. Only a crisis—actual or perceived produces real change. When that crisis occurs, the actions that are taken depend on the ideas that are lying around. That, I believe, is our basic function: to develop alternatives to existing policies, to keep them alive and available until the politically impossible becomes politically inevitable."

In this view, change comes through crisis and the direction of this change is not just a function of the nature of the crisis but also the efforts of those groups seeking change. This essay seeks to inspect this view, exploring the processes by which crisis can drive change in a political-economic paradigm, and better understand why many adopt a 'theory of change' founded on the idea that change comes only through crisis. Section 1 introduces a simple model for understanding when and how crises can drive change, applying this model to recent historical examples. Section 2 asks if health crises—including pandemics—are a special case and explores the role of public health in shifting prevailing political-economic ideas and practice in general. Section 3 explores the shifting nature of risk and looks to the crises of the future to question the prudence of 'crisis as strategy' for those seeking political-economic change under conditions of environmental breakdown, a crisis existing concurrently with, and potentially more severe than, the COVID-19 pandemic. Section 4 concludes.

2. CRISES DRIVE CHANGE

Major disruptive events and crises can drive political-economic change. But not all such events are created equal when it comes to driving an overall shift in the political-economic paradigm, the focus of this paper. As we shall explore, some events which might 'deserve' to shift the paradigm do not, and vice versa. But first, let us define a 'political-economic paradigm'. By this, we mean a system of thought and practice that can drive the behaviour of decision-makers and policy-making institutions, helping determine the structures and dynamics of overall socioeconomic systems.³ A political-economic paradigm encompasses various elements, including:

³ Analysis in this section is based on: Stirling, Alfie and Laurie Laybourn-Langton, "Time for a New Paradigm? Past and Present Transitions in Economic Policy," *The Political Quarterly*, 2017, doi:10.1111/1467-923X.12415; and Laybourn-Langton, Laurie and Michael Jacobs, "Paradigm shifts in economic theory and policy," *Intereconomics*, 2018, doi: 10.1007/s10272-018-0737-4.

- A general analytical framework and set of assumptions for understanding how economies and societies operate;
- Political and economic goals, or problems needing to be addressed, which are regarded as most important for society and in policymaking;
- Principal social and economic policies that seek to realise these goals and overcome the problems, which, to varying degrees, are justified in reference to the analytical framework;
- Narratives and language that describe and seek to legitimise the other elements of the paradigm;
- The allied power structures and dynamics that bring it to prominence and sustain its dominance, including links to intellectual proponents, accommodation with powerful sectional and vested interests, and the support of governing parties.

Examples of political-economic paradigms, at least from an Anglo-American perspective, include 'embedded liberalism', a forty-year period of economic orthodoxy largely founded on Keynesian macroeconomics and policy approaches often described as the 'post-war consensus' in Britain and coinciding with the thirty-year post-war economic expansion (Ruggie 1982). In the wake of the currency and oil shocks of the early 1970s, this paradigm was steadily replaced through the adoption of a pro-market suite of policies, including deregulation, privatisation and financialisation, in the 1980s. This led to the period of free market economic ideas widely known as 'neoliberalism' from the 1980s to the present day, to which we refer to as the 'neoliberal paradigm'.⁴

A political-economic paradigm and the range of elements it encompasses are related to a range of factors driving the development of economic structures and dynamics across societies. These include wider religious and cultural forces, environmental conditions or constraints, and conflict and geopolitical dynamics. In all, political-economic paradigms can exert a powerful influence over academic thought, media narratives, the programmes of political parties, institutions of policymaking, both national and international, and general public perceptions of how and for the benefit of whom economic structures can and should be constructed.

A crisis—here defined as "specific, unexpected, and non-routine events or series of events [creating] high levels of uncertainty and threat or perceived threat" (Seeger et al 1998)—

⁴ The term 'neoliberalism' is controversial in some circles, since it can carry strongly pejorative rather than merely descriptive connotations. We use it here as a conveniently descriptive term to characterise the dominant set of 'free market' theories, values and policies. A description of the main elements of neoliberalism is provided in Appendix 1. For more on the uses of the term 'neoliberalism', see: Oliver Marc Hartwich and Sally R, *Neoliberalism: The genesis of a political swearword*, the Centre for Independent Studies, 2009.

can lead a dominant political-economic paradigm to lose legitimacy. Economic and political turmoil can create conditions in which ideas and policies associated with the dominant paradigm are perceived to have failed to adequately conceive of and respond to events, leading to a process of change in which the prevailing orthodoxy can be replaced by a new approach. A body of literature has sought to understand this change process, influenced by Kuhn's theory of paradigm shifts in the natural sciences (Kuhn 1962). According to this theory, change occurs when two conditions are met: first, a critical mass in the number or importance of 'anomalies' which contradict the dominant paradigm, and second, the successful development of an alternative theory that better explains the prevailing evidence. Lakatos (1968) built on these ideas, arguing that changes in science could be seen in terms of 'research programmes' that are either 'progressive' or 'degenerating'. Progressive programmes advance new theories and adopt ideas that better explain reality. In contrast, degenerating programmes persist with old theories and ideas, despite their failure to explain the available evidence, and so eventually abdicate their previous status as progressive programmes. Degenerating programmes can have undue staying power, enjoying an incumbency advantage underpinned by the vested interests of leading scientists. A shift in paradigm only occurs when progressive programmes gather sufficient support to overcome the hold of a degenerating programme and a tipping point is reached, after which the old programme is superseded.

While providing useful heuristics, these theories nevertheless need careful application in the overall field of politics, economics and public policy, which is fundamentally uncertain and in which hypotheses can never be irrefutably falsified. Economic policy in particular is developed through a process of political choices and social learning in which policymakers decide on new goals and methods with only partial reference to academic theory or evidence. The inherent uncertainty of economic prediction and the political nature of policymaking make it easier for degenerating programmes to retain their incumbency advantage, aided by vested interests. Hall argued that economic policy can exhibit three orders of change, increasing in their magnitude: adjustment of an existing policy, change in the policy, and change in the goals of policy altogether. In Hall's conception, it is the third order of change which corresponds to a paradigm shift in the political-economic orthodoxy (Hall 1993).

Using Hall's conception of orders of change, let us build a simple model in order to inspect the major factors determining the process of change driven by crisis. Crises have varying degrees of 'significance', here defined as the extent to which events drive influential actors to question the legitimacy of elements or the entirety of the prevailing political-economic paradigm and to win supporters in the process. The failure of a policy or a governing project

can be delegitimised in the face of events it cannot control or even adequately understand. The 'reach' of crises is also important: in the extreme, highly significant events which clearly delegitimise the status quo are more likely to drive change if those events and their consequences are noticed or experienced by a large number of actors throughout society. A highly significant event with sufficient reach can lead to the breaking of a major norm associated with the prevailing orthodoxy, an important moment in the process of change, as illustrated in figure one below. Under these conditions, the de-legitimisation of the current approach is identifiable by a large enough group of actors across society that it becomes increasingly difficult for those in positions of influence and leadership to justify the continuation of a particular policy or narrative. It is beyond this point that we could consider Hall's first and second orders of change are most likely to occur. In short, an increase in the severity of a crisis increases the probability of major changes occurring to the political-economic paradigm up to a point in which an overall change occurs, as we shall explore.

Crucially, perceptions of the significance of events and their reach are a function of the efforts and organisation of an 'ecosystem of influence', encompassing the activities of actors engaging with political-economic debates and practice, including, *inter alia*, through academia, party politics, organised labour, citizen activism and the media. The reach and significance of events are themselves subjective, variable and therefore alterable through intervention by influential actors. All too often, a focus on ideas and a rationalist conception of policy change can lead us to fall into the trap of seeing such change as coming primarily or even singularly from the persuasive force of argument. In this view, if enough evidence can be marshalled and presented succinctly, even persuasively, through rhetorical force, and be done to the right people at the right time, then we can be sure to see the world change. This is a 'common room theory of change' and to employ it, explicitly or implicitly, is to misread history (Laybourn-Langton 2020). The pliability of the reach and significance of crises can mean that events that are highly significant do not precipitate wider change.

For example, in early 2018 the British construction and management firm Carillion was compulsorily liquidated, the "largest ever trading liquidation in the UK," according to the Official Receiver.⁵ Foremost among the factors leading to its failure was the financialisation of Carillion. The firm had been paying more cash in dividends than net cash flows from operating activities and poor performance on contracts played into efforts to grow out of trouble through bidding for more projects to generate income for creditors, who were lending on an

⁵ "Carillion contracts complete transfer," UK Government, August 6, 2020.

increasingly short-term basis. Indeed, the UK government, whose public-private outsourcing model had eroded state capacity for delivery of everything from construction to facilities management, gave the firm over £1 billion of contracts while knowing of Carillion's increasingly impaired financial position, "effectively making taxpayers a kind of Ponzi scheme investor of last resort," having done little to identify the risks to a key strategic supplier (Leaver 2018).⁶ Margins shrank even further, debt increased, and liquidation followed. The failure of Carillion was a signal example of the risks of the financialisation of firms and the reliance of the British state on outsourcing and the resultant moral hazard (ibid). It also highlighted major problems with audit practices and the audit market in general, with the failings of the large accountancy firms involved in the episode being "symptomatic of a market which works for the Big Four firms but fails the wider economy."7 Government oversight was also lacking, with the key regulators relevant to the crisis, the Financial Reporting Council and the Pensions Regulator, being condemned as "united in their feebleness and timidity" by a parliamentary investigation.⁸ The collapse of the firm cost billions of pounds, tens of millions of which were absorbed by taxpayers, and led to the failure of scores of other firms-risking a larger 'contagion' that may have threatened a financial crisis-and unemployment and significant social and economic disruption (Hajikazemi et al 2020). A parliamentary inquiry concluded that:9

> "Carillion's rise and spectacular fall was a story of recklessness, hubris and greed. Its business model was a relentless dash for cash, driven by acquisitions, rising debt, expansion into new markets and exploitation of suppliers. It presented accounts that misrepresented the reality of the business, and increased its dividend every year, come what may. Long term obligations, such as adequately funding its pension schemes, were treated with contempt. Even as the company very publicly began to unravel, the board was concerned with increasing and protecting generous executive bonuses. Carillion was unsustainable. The mystery is not that it collapsed, but that it lasted so long."

These events were highly significant and had a far reach. The failure of outsourcing and financialisation—key elements of the prevailing political-economic paradigm—were clearly implicated in the crisis, affording high potential to the breaking of norms associated with these

⁶ Business, Energy and Industrial Strategy and Work and Pensions Committees, *Carillion*, House of Commons, 2018.

⁷ ibid

⁸ ibid

⁹ ibid

approaches. There is some evidence of first and second order change in relation to outsourcing and procurement policy across central government, though penetration and uptake of new guidance has been mixed and is limited to only some elements of procurement (Sasse et al 2020). However, beyond the activities of various investigations and rhetoric from government and firms, there has been little action taken to ameliorate the deficiencies of the audit market. Moreover, the episode did not precipitate major changes to the outsourcing model that gave rise to Carillion, the failings of which were so clearly exposed by the process leading up to and after the liquidation. Nor did it lead to a major policy action targeting the risks and inefficiencies inherent in the financialisation of firms in particular and financialisation across the economy in general. The factors determining why the Carillion episode did not lead to first or second, let alone third order change are beyond the scope of this essay, but likely include the role of a governing party that supported Carillion, elements of its management and the outsourcing model of which it was a part, the relative complexity of the story and a difficulty communicating the mechanisms and consequences of financialisation, and priority of attention afforded to other major events, particularly the process of the UK leaving the European Union. But the episode does provide an example of an event of clear significance and reach that could and probably should have led to major change relating to elements across the politicaleconomic paradigm but did not, at least yet.

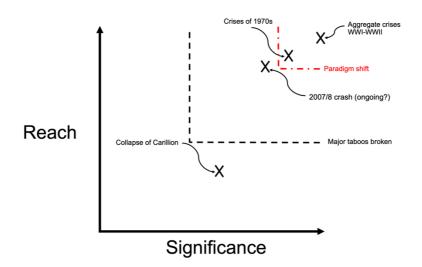


Fig. 1 – graphical representation of the simple model of how crises can drive change

Beyond a certain point events can be so significant and far-reaching that they precipitate an overall paradigm shift. This critical threshold is associated with crises that are huge, all-encompassing and often highly damaging. Over the last century—at least in the Anglo-

American experience—profound crises that precipitate a paradigm shift have occurred twice. The first came in the wake of the aggregate crises over the period encompassing the World Wars and interwar years and came off the back of a rising tide of progressive thought, practice and politics that founded the embedded liberalism of the post-war years (Laybourn-Langton 2020). The second came in the wake of the crises of the 1970s, including oil shocks, persistent labour disputes, and stagflation, and was partly driven by an organised 'counter-revolution' of anti-collectivist academics, self-interest business elites, and a well-resourced influencing operation, including the first modern think tanks (Stedman Jones 2014). There are similarities between both shifts. To varying degrees, both episodes saw: large sections of society sharing experiences that seemed to erode the legitimacy of the status quo; were partly a result of geopolitical and global economic structural change of a significance that evaded the understanding or capability to respond of the prevailing approach; and effective organisation on the part of those who became emblematic of the resulting shift, who made compelling connections between the failings of individual narratives, ideas or policies and the overall approach of the status quo. In contrast, the 2007/8 financial crisis and the resulting economic, social and political aftereffects were surely of a reach and significance that could precipitate a political-economic paradigm shift, but did not. In some respects, such a shift process could be underway, though an overall shift is not yet apparent (Laybourn-Langton et al 2019). That said, it could be that, in the future, the 2007/8 financial crisis and the ongoing aftershocks are seen as being part of an overall period of profound crisis, encompassing the political upheavals of the late 2010s and the consequences of the coronavirus pandemic, in much the same way as the post-war shift is recognised within the context of decades of crisis across and between the two world wars. Paradigm shifts can only be identified retrospectively, after the political and economic uncertainty and instability associated with a period of change has calmed and a new equilibrium emerges. We are a long way from stability, as the final section of this essay will explore.

3. HEALTH CRISES: A SPECIAL CASE?

Much of the discussion around the potential of the 2007/8 financial crisis to drive a paradigm shift was couched in terms of economic impacts. This was perhaps inevitable; the crisis emerged in and spread through financial markets, thence into the real economy, and at a period of human history when the concepts and language of economic theory and practice featured prominently throughout the media and politics. But macroeconomic trends and impacts are not the only factors driving crises and the resultant potential for change. As it is easy for us to

currently appreciate, a particularly prominent factor can be the social, economic, political and cultural impact of pandemics.

At least from a Western perspective, the Black Death of the mid-1300s in Europe is the archetypal example of a pandemic that precipitated a political-economic paradigm shift. Indeed, to describe it in these terms is to underplay the profound effect of the Black Death. Having travelled along the Silk Road and through merchant shipping-the interconnected trading highways of medieval Europe-the disease spread rapidly through a population still reeling from the Great Famine of 1315-17, which itself came in the wake of unprecedented prosperity brought by the Medieval Warm Period. Within a decade, the pandemic killed up to 60% of the European population, the apogee of a century of demographic catastrophe; it was not until 1500 that European population levels recovered to those of the early 1300s (Austin Alchon 2003). The pandemic afflicted a society in which feudalism reigned; societies were structured around a growing population of peasant cultivators who, in return for protection provided by a landholding elite, eked out a surplus from the land, which the elite frittered away on conspicuous consumption and religious wars. Fewer peasants competing for the patronage of landlords eroded the power of the elite and efforts to re-establish the status quo triggered revolts that tore across the continent. The social and economic collapse brought about by the Black Death favoured the resultant development of a particular set of political-economic dynamics. As the old agrarian system melted away, custom and coercion ceased to become an effective means of enrichment for landowners. Instead, they turned to increasingly sophisticated markets and employed a class of newly empowered tenant farmers. This arrangement incentivised both landowners and farmers to increase agricultural production and reduce the costs of doing so, in order to maximise profits. Investments were made in better agricultural tools and techniques, cheaper land and labour were sought, and the most lucrative crops, such as grain, were favoured. In all, a new economic system formed around these dynamics, characterised by private ownership of and compounding investment in capital, with the prices, production and distribution of goods largely determined by marketplace competition instead of custom or birth right. With it came the compulsion to seek new frontiers, and new means of increasing production and reducing costs (Patel and Moore 2017). In England, this was partly manifested in landowners and farmers appropriating land previously held in common ownership, enclosing it for their private gain and using their influence over government to that end. More land was therefore given over to profit-making and private ownership, and farmers set about improving the means of getting more from the land.

These dynamics also compelled people abroad, in search of untouched environments to till, better crops to grow, foreign markets through which to sell them, and slave labour. All these factors combined to bring about another epochal period of change brought about by disease: the Spanish and Portuguese colonisation of South America. The Western diseases carried by colonists tore through a continent-wide population lacking immunity, killing millions. Within decades, societies were ravaged, first as the result of smallpox and then successive cocoliztli epidemics, their populations falling by upwards of 90%. The combination of high disease mortality and the advanced weaponry of the colonisers led many of the empires of South America to collapse in quick succession, facilitating the conquest of the continent and the indiscriminate exploitation of its peoples and natural resources by the Spanish and Portuguese state and allied merchants (Diamond 1997). The knock-on effects of the colonisation included mining of silver on an industrial scale, which filled the exchequer of European monarchs, funding new wars of conquest, and allowed Spanish colonisers to pay for valuable commodities in the rich markets of India and China, as part of a wider process that transformed the international economy. Additionally, exploitative labour systems forced indigenous communities to abandon traditional ways of life and succumb to new concepts of work and exchange to earn the money needed to buy food and shelter, entrenching European economic dynamics across the continent. The Black Death and colonisation of South America were world-making events, contributing to epochal changes to the political-economic order across the globe, and are therefore examples of crises with near-complete reach and significance, setting path dependencies for subsequent economic development.

Closer to the present, a range of major disease outbreaks have had a mixed impact on political-economic orthodoxies. In the early 2000s, a global epidemic of severe acute respiratory syndrome (SARS) spread to a range of countries around the world. Mainland China saw the highest number of cases but experienced a muted economic impact, losing around 1% of projected GDP growth and taking a sizeable hit to retail sales, industrial output and trade.¹⁰ As such, the SARS epidemic is an example of a disease crisis that had high levels of reach and significance but did not reach a sufficient scale whereby major political-economic change occurred, partly or mainly due to the robust response of public health bodies at local, national and international levels. It is also worth noting that it is yet to be seen whether the resultant changes to public health practices in those countries most impacted by SARS—including mainland China, Hong Kong and Singapore, as well as Canada—will have a bearing on the

¹⁰ Yen Nee Lee, "4 charts show how SARS hit China's economy nearly 20 years ago," *CNBC*, February 10, 2020.

scale of the damage resulting from the COVID-19 pandemic and the knock-on politicaleconomic changes. Conversely, the ongoing global HIV/AIDS epidemic has killed upwards of 40 million people since 1981, predominantly in countries across Africa; a crisis of large reach and significance (UNAIDS 2010). While the epidemic has driven changes in domestic political-economic factors in countries across the world, it is questionable whether it has stimulated a paradigm shift in the prevailing model of international political economy, particularly those relating to African countries, with a range of 'structural adjustment' programmes undertaken by multilateral institutions and development policies on the part of Western governments previously being linked to the continued failure to contain the epidemic (Poku 2002).

The 1918 Spanish influenza pandemic provides a clear example of a major crisis of great reach and significance that contributed to the process of political-economic change in and between countries around the world (Spinney 2017). Coming in the wake of the First World War, the pandemic killed as much as 2% of the global population and, in terms of falls in real per capita GDP or consumption, was the "fourth most important negative macroeconomic shock for the world since 1870 – coming after WWII, the Great Depression of the early 1930s, and World War I" (Barro et al 2020). The first order impacts on health and the economy helped stimulate a range of second order impacts, foremost of which include major developments in public health. Improvements in epidemiology and the practical lessons derived from public health measures emboldened those seeking to bring these insights into prevailing politicaleconomic narratives and policies. In Britain in 1919, the Local Government Board, a government body overseeing local administration, was abolished to make way for a full Ministry of Health. Subsequently, Dr Christopher Addison, the first Minister of Health, commissioned a report into 'medical and allied services' which recommended that the "general availability of medical services can only be effected by new and extended organisation, distributed according to the needs of the community," and that such an organisation was "needed on grounds of efficiency and cost, and is necessary alike in the interest of the public and of the medical profession."¹¹ Over the following twenty years, the growing scope of public health as discipline and administrative practice fed into the wider agenda of anti-poverty campaigners and social reformers, and the emboldening of allied socialist and social democratic intellectuals and politicians (Laybourn-Langton 2020). During the Second World

¹¹ "Interim Report on the Future Provision of Medical and Allied Services 1920", Ministry of Health Consultative Council on Medical and Allied Services, HM Stationary Office, 1920.

War, the ideas and policies propounded by these groups provided a foundation for the emergency response taken by the government, particularly the creation of a centralised Emergency Hospital Service, which effectively nationalised parts of healthcare, breaking prevailing taboos around the affordability and political palpability of public healthcare. Moreover, as the fortunes of the Allied military forces improved, public health ideas underpinned the race to 'win the peace'. William Beveridge, former director of the London School of Economics, was tasked by the government during WWII to survey existing social security arrangements and make recommendations. The resultant Beveridge Report identified 'five giant evils'-want, disease, ignorance, squalor and idleness-which were effectively a categorisation of major socioeconomic determinants of public health. The Beveridge Report served as the basis for the creation of the National Health Service (NHS) and the post-WWII welfare state. An increased role for the state in ameliorating social ills and acting to direct economic activity won key supporters in the Conservative Party, many of whom were concerned about the impacts of high levels of unemployment, shocked at the squalor and ill health exposed by the social mixing during mobilisation for war, and saw economic logic in improving the health of the workforce (Addison 2011). As a result of this and other factors, the welfare state institutions, including the NHS, served as the foundation of the post-war consensus paradigm shift and the entrenchment of the embedded liberalism in the UK, with comparable changes elsewhere (Laybourn-Langton 2020).

As such, a direct line can be traced from the experience of the Spanish flu, the maturation of public health management and its interrelation with growing socialist and social democratic political movements, and the subsequent shift to the paradigm of embedded liberalism. It shows that public health has always been a major driver of changes in political economy. This is because public health as physical reality, discipline and practice is systems-focused, providing a particularly effective mechanism for conceiving of and acting against the failings of socioeconomic systems to meet human needs. Human health cannot be separated from the health of our societies and the wider world; ill health, from pandemics or otherwise, acts to pointedly expose the intersections of social, economic, political and environmental forces. Consequently, in recent years, a large body of literature examining the social, commercial and environmental determinants of health have provided emphatic proof of the inadequacy of the prevailing political-economic paradigm to meet human needs to acceptable standards or even at all, and, as they have done throughout history, provide us with insights that can help chart

us away from a present—and future—of persistent and compounding societal ills.¹² It is in this way that pandemics in particular and public health in general can be seen as a special case of those crises—drivers of change—that can precipitate enduring shifts in the prevailing political-economic paradigm.

4. CRISIS AS STRATEGY UNDER CONDITIONS OF ENVIRONMENTAL BREAKDOWN

It is all too easy to find, at least in the English language, mainstream politicians or self-help books or Instagram 'influencers' asserting that the Chinese word for 'crisis'—wēijī— comprises two elements representing 'danger' and 'opportunity'. Here is John F. Kennedy in 1959, referencing the Cold War: "When written in Chinese, the word "crisis" is composed of two characters - one represents danger and one represents opportunity."¹³ And then Al Gore, nearly fifty years later, in relation to climate change: "The Chinese expression for 'crisis' consists of two characters side by side. The first is the symbol for 'danger,' the second the symbol for 'opportunity'" (Gore 2006). Yet, in truth, the story is more complicated. Wēijī, it turns out, "indicates a perilous situation when one should be especially wary...it is *not* a juncture when one goes looking for advantages and benefits..." (Mair 2009. As we saw above, it is clearly the case that past crises were dangerous, destructive moments that inherently presented profound opportunities for political-economic change, opportunities which were exploited for advantage by those seeking a paradigm shift. But it could be that we are entering a new era in which this historical pattern no longer serves as a useful guide, and in which those seeking change should pay more heed to the true translation of wēijī.

Over the last 11,700 years, global environmental conditions have remained remarkably stable, with little temperature variability and a warmer climate relative to the preceding ice ages. This epoch is identified as the Holocene in the geological literature and is characterised by the stability of key natural systems, which enabled the rise of modern human societies; the Holocene epoch encompasses the entirety of written history (Young and Steffen 2009). This stability has now ended. Human activity has altered the functioning of biogeochemical cycles that regulate the Earth's life support systems, making humans the dominant driver of the overall

¹² See, for example: Cassandra de Lacy-Vawdon and Charles Livingstone, "Defining the commercial determinants of health: a systematic review," *BMC public health* 20, no. 1 (2020): 1-16; and Ilona Kickbusch, Luke Allen and Christian Franz, "The commercial determinants of health," *The Lancet Global Health* 4, no. 12 (2016): e895-e896.; and Nick Watts, Markus Amann, Nigel Arnell, Sonja Ayeb-Karlsson, Kristine Belesova, Maxwell Boykoff, Peter Byass et al., "The 2019 report of The Lancet Countdown on health and climate change: ensuring that the health of a child born today is not defined by a changing climate," *The Lancet* 394, no. 10211 (2019): 1836-1878.

environmental state of the planet (Steffen at al 2007). The resultant environmental destabilisation encompasses more than just climate breakdown, stretching across many areas of nature and natural systems—including soil, biodiversity and the oceans—driving a complex, dynamic process of overall 'environmental breakdown' of unprecedented scale and pace (Laybourn-Langton et al 2020).

As a result, we have entered a new chapter in a story of human damage to the environment that goes back centuries (Lewis and Maslin 2015). Three overall elements are apparent. Firstly, Earth systems scientists argue that we are in a state of 'planetary emergency': the global biosphere has been so badly damaged that immediate and system-wide changes are needed to avoid the most catastrophic consequences (The Club of Rome 2020). Moreover, the risk is growing of irreversible, runaway destabilisation of the biosphere—the cross of 'tipping points' and the triggering of cascading feedback mechanisms-that ultimately threatens the viability of human civilisation (Lenton et al 2019). Secondly, the consequences of the existing stock of environmental destruction are becoming increasingly apparent, ranging from increasingly catastrophic local impacts, such as wildfires and superstorms, to global systemwide destabilisation, including the potential implication of land use change and species exploitation in the emergence of COVID-19 (WMO 2020). Thirdly, the environmental situation will get worse no matter what. Even if far more action were taken, natural inertias create a dangerous 'stopping distance' between human action and environmental reaction. Furthermore, existing warming levels may have already triggered tipping points (Lenton et al 2019). Crucially, a similar problem exists within human systems, constraining the response. All economies are, by their very construction, currently dependent on the continuation of environmental destruction. Thus, there also exists a stopping distance between decisions to end environmental degradation and the eventual achievement of sufficient levels of sustainability. It would be both impossible and catastrophic to stop, overnight, the damaging activities upon which our societies depend, switching off the fossil fuel power plants and stopping the dirty vehicles. Yet the opposite is happening; more coal power plants are planned and petrol and diesel cars continue to roll off production lines, speeding up the destruction and limiting the capacity for societies to rapidly reduce environmental impacts or at least increasing the price of doing so.

While this state of planetary emergency likely predated the coronavirus shock, the pandemic has provided a moment of immediate material crisis in all countries around the world and across interconnected socioeconomic systems, something which had arguably yet to emerge as a result of environmental breakdown. From this unprecedented crisis springs myriad

opportunities for-and threats to-change that can finally enable a proportionate global response to the planetary emergency. At the time of writing, such a moment has been explicitly recognised by a number of governments, multilateral institutions, businesses, civil society groups and academics who have, to varying degrees, forcefully argued for recovery measures that seek to accelerate improvement in sustainability, equity and resilience, to "build back better". Policy responses that were almost unthinkable at the start of 2020, such as outright monetary financing and society-wide furlough schemes, have been implemented at speed, opening up unprecedented room for political-economic change. Moreover, the structural damage to socioeconomic systems, from spiralling unemployment through collapses in oil demand to changes to how we work and live, open up even larger opportunities for change. It should also be noted, of course, that many stimulus measures undertaken by governments in 2020 have also accelerated investment in fossil fuel power, increases in transport use, and unsustainable material consumption, while the health and socioeconomic impacts of the pandemic interact with and entrench inequalities. But, overall, it is hard to argue that the coronavirus pandemic is not a crisis of the order explored above. Moreover, as many have pointed out, we cannot afford for it to be seen in isolation to the environmental emergency, as well as other interrelated socioeconomic problems, particularly inequality and marginalisation. Decisive, epochal change is needed, pushing socioeconomic development onto a pathway of greater sustainability, equity and resilience. At least from the perspective of biosphere stability, the pandemic must be a turning point.

But turning around takes time. As political-economic actors increasingly grapple with the question of what emerges from the coronavirus crisis, there will be an ongoing, two-stage process of change. Firstly, these actors will have to commit to action to realise more sustainable, equitable, resilient socioeconomic systems. In many ways, this has not yet happened, either at all, as in the case of the 2016-20 Trump administration, or to the level required as in the case of those countries undertaking climate action that is still incompatible with Paris Agreement goals. Secondly, after having committed to the necessary change, it will take time and a lot of effort to practically realise the necessary outcomes; of undertaking a global energy transition, repairing the huge damage done to biodiversity, and transforming intransigent structures of inequality and marginalisation. This will mean that, even if a more sustainable course is rapidly charted out of the pandemic, environmental degradation will continue and, as a result of this and the existing stock of damage, socioeconomic destabilisation resulting from environmental breakdown will grow. These destabilising consequences are not limited to direct and indirect local impacts, such as the immediate destruction of extreme weather events and their resultant ongoing disruption to infrastructure, ill health and political destabilisation (Laybourn-Langton et al 2019). The consequences of breakdown are systemic and uncontained by the boundaries of the nation state. Globalised economic systems transmit the impacts of local events across national borders. Food shocks, for example, do not just affect those countries in which the agricultural system is impacted, but are experienced across supply chains through shortages and increased prices (Tzachor 2020). In turn, the consequences of environmental breakdown will interact with existing socioeconomic and political problems, such as inequality, state fragility and geopolitical tension, compounding and exacerbating them. The nexus of these elements presents a foundational political-economic challenge over the coming decades. In short, the increasing frequency and severity of environmental shocks will be transmitted across socio-economic systems, which are already experiencing acute stress, destabilising them over a period in which they must undergo rapid structural change. Such a state of affairs may present a challenge without precedent in human history.

We are therefore entering uncharted territory politically as well as biophysically. A range of implications arise for strategies that seek a paradigm shift. Firstly, we can expect many more crises and at a greater frequency, reach, severity and complexity than in the past. With it having been derived in part from historical experience, we must therefore question our very conception of what constitutes crises and how they can drive change. The deepening interconnection of socioeconomic systems and the growing destabilisation brought by environmental breakdown could be inaugurating a new 'domain of risk' (Laybourn-Langton et al 2019). These risks are systemic, cumulative, non-linear, span local to global geographies, multiply many other risk factors, and encompass both sudden, high-impact events and gradual, 'slow burn' disruption (ibid, Pinner et al 2020). This has considerable consequences for virtually all areas of policy and politics at all levels, from local communities to international institutions. It is different to previous risk domains – such as that experienced in the Cold War, with the risk of political standoff leading to a nuclear exchange, or the heightened risk of financial crisis in the post-Bretton Woods era – because it is largely driven by natural processes that are, increasingly, out of the control of human action and which are characterised by large levels of uncertainty. It will interact with existing risk, multiplying the chance and severity of crisis, potentially driving a 'perfect storm' of interrelated challenges. It is a new, extreme normal of persistent, compounding and constantly evolving destabilisation across most social, economic, political and environmental factors. It could therefore be described as a state of 'no normal', of ongoing crisis in the historical sense of those crises that can drive politicaleconomic change.

In many ways, the coronavirus pandemic has provided an insight into elements of this domain of risk. It has constituted a physical shock to economies and societies, both directly through morbidity and mortality and indirectly through the impacts of the resultant public health restrictions. These shocks have been transmitted and amplified through socioeconomic systems, with knock-on effects to supply chains and financial markets, and have multiplied existing problems, exacerbating vulnerabilities such as health inequalities and the regressive structural problems facing emerging economies. The problem grew exponentially, quickly overwhelming an inadequate capacity to respond on the part of many governments. The impacts will be highly damaging and enduring, and in turn, reducing pandemic risks requires major changes to socioeconomic systems, many of which are similar to those needed to combat environmental breakdown. However, the pandemic should be seen as one particular threat within an overall domain of risk. Unlike the risks associated with pandemic threats, the domain of risk brought about by environmental breakdown creates an enduring state of compounding stress across a multitude of systems, with certain threats and shocks seemingly unrelated, in the first instance, to environmental factors. This roiling destabilisation could divert attention from the acute imperative to mitigate root causes as political-economic energies are overwhelmed by the compounding impacts of persistent crises. Stability is shifting-at least in our past understanding-not just for places and systems, but also for strategies that seek political-economic change. In the same way that it was difficult for many to perceive of the exponential impacts of the coronavirus in November 2019 or even February 2020, it is difficult to imagine how fighting against a 2C rise in a 1.5C world will differ from fighting against 1.5C in a 1.1C world. Fighting against 2.5C in a 2C world, more so.

As a result, the heuristics used to conceptualise change strategies, such as those gifted to us by Lakatos or Hall, may have diminishing utility in a world that is becoming increasingly distant from their experience. New heuristics will need to be developed and socialised among those seeking change, including the risk that worsening destabilisation, such as shocks to financial systems or food price rises, could increase political discontent or force nations to adopt a protectionist economic and geopolitical stance, crowding out cooperation (Laybourn-Langton and Murphy 2020). In such a world, a broad range of political-economic actors could face a set of incentives that discriminate against progressive changes. For example, while certain trends—from food shocks to conflict between communities or countries—are the common symptoms of systemic destabilisation driven by environmental breakdown, the discrete manifestation of such trends could, by their nature as emergencies, prejudice against recognition of and action on the root causes of these symptoms. In this case, political-economic actors could be incentivised to focus on opprobrium or blame levelled at those implicated in short term events, particularly when these events come in compounding succession. This drives a vicious cycle, in which political-economic action prioritises responses to proximate causes of immediate events. The increasing severity of these events could favour regressive political responses, as populations seek protection from threats, real or perceived. In turn, this could lead to greater demonisation and exclusion of certain groups, increased incidence and severity of conflict, the crowding out of action on environmental breakdown, and further empowerment of elite vested interests, who are most able to further their agenda under conditions of destabilisation. A range of political-economic actors could find it difficult not to be pushed toward exhibiting this behaviour or to being supplanted by increasingly regressive political forces who exploit fear and uncertainty.

Migration issues provide an illustrative example. Ethno-nationalist political forces in Western nations-those propounding a nationalist politics founded on ethnic identities-have framed the recent increase in global forced migration as a serious, even existential threat to these countries (Ratkovic 2017, Davis and Deole 2017). These narratives defy the fact that relatively few displaced people seek refuge in Western nations and, overall, migration can provide economic and social benefits to countries in excess of the cost of accepting and hosting them (ISPI 2017, Vargas-Silva and Sumption 2019). These misconceptions have been exploited to win concessions from the political mainstream and have helped drive the militarisation of borders in Western countries and the growing hostility of migration policy (Arci 2019, Akkerman 2018). These dynamics are set to get worse. Environmental breakdown is readily identified as a factor determining rates of forced migration by governments and multilateral institutions - both directly, as a result of environmental disasters and slow burn environmental stress, and indirectly, as a driver of conflict and multiplier of destabilisation (Estevens 2018, GCM 2018). The implications of increases in forced migration, real or perceived, against the backdrop of increases in general destabilisation, could undermine arguments for the acceptance and humane treatment of refugees in particular, and the electoral chances of non-nativist politics in general. Indeed, a range of mainstream political actors are already responding to elements of the incentive structure that could be imposed by environmental breakdown or are making decisions that could enable more regressive political responses as destabilisation grows. EU leaders make rhetorical commitments to rapidly reduce environmental impacts yet have proven unwilling or unable to attempt systemic changes across economies. Meanwhile, these leaders have been influenced by regressive narratives on migration, with results including the 'externalisation' policy of the EU, by which the

responsibility for the management of flows of displaced people is outsourced to non-EU countries. In the USA, the 2016-20 Trump administration sought to limit environmental action, took an openly hostile stance on migration, and eschewed norms of international cooperation. Across Europe, mainstream far right political parties are increasingly accepting environmental science and seek to answer destabilisation with exclusion and the establishment of ethno-states, including Rassemblement National, led by Marine Le Pen. In the 2019 European parliament elections, a leading party figure was quoted as saying that "[b]orders are the environment's greatest ally; it is through them that we will save the planet".¹⁴ In the extreme, violent ethnonationalist frames relating to environmental breakdown have been used by high profile mass murderers as ostensible justification for their actions and are pervasive on extreme right online fora. While there is little or no common agenda across these groups, the behaviours they exhibit could become mutually reinforcing as environmental breakdown accelerates and societies come under compounding stress, shrinking the space for progressive political-economic discourse.

This state of affairs is new, constantly evolving and emerging at a rapid pace. In many respects, those seeking paradigmatic change are far behind on understanding the drivers and vagaries of the domain of risk emerging as a result, at least, of environmental breakdown, let alone working to develop responses to it, in the form of theory, policies, narratives, and political strategies. When considering the potential advantage of growing destabilisation for highly regressive political projects—or at least those that crowd out cooperation at this crucial moment—it is imperative that this work be done and done quickly. With the stakes so high 'fighting the last war' is not an option. Among other things, this does not only require those seeking change to question the use of prevailing heuristics of change but also to seek new skills and actors to form part of an ecosystem of influence capable of driving the necessary scale and pace of change under conditions of growing destabilisation. Arguably, this was already the case in a more digital, connected and demographically younger world, even without environmental breakdown. These trends are accelerating, and it may not be the think tanker, the legacy press commentator, or the aspirant cabinet minister who are the most effective agents for driving a political-economic paradigm shift over the 2020s and beyond.

¹⁴ See: Mazoue, Aude, "Le Pen's National Rally goes green in bid for European election votes," *France 24*, April, 20, 2019.

4. CONCLUSION

Nearly two millennia ago, Cicero wrote that, "salus populi suprema lex esto"-the welfare of the people shall be the supreme law. It is a maxim that has captivated the imagination and practice of many of the great political-economic projects of recent centuries. In Britain, it was used by John Locke as the epigraph to his Second Treatise on Government; in Southwark, in London, it is cast in stone above a medical centre. This is because public health has and will always be a fundament determinant of the ways in which societies are ordered. While it is moot to recognise that crises can precipitate change in the prevailing political-economic paradigm, health in general and large disease outbreaks in particular can be major drivers of such change, fomenting deep and enduring structural changes to the way in which societies are ordered. Human health cannot be separated from the health of our societies and the wider world; ill health, from pandemics or otherwise, acts to pointedly expose the intersections of social, economic, political and environmental forces. Consequently, in recent years, a large body of literature examining the social, commercial and environmental determinants of health have provided emphatic proof of the inadequacy of the prevailing political-economic paradigm to meet human needs to acceptable standards or even at all, and, as they have done throughout history, provide us with insights that can help chart us away from a present—and future—of persistent and compounding societal ills. It is in this way that pandemics in particular and public health in general can be seen as a special case of those crises—drivers of change—that can precipitate enduring shifts in the prevailing political-economic paradigm.

This is the central reason why the disjuncture brought by the COVID-19 pandemic presents an unprecedented opportunity for profound and enduring change. Looking back over centuries of pandemics, the response to COVID-19 could be the first time in which the desire to protect public health, above all other considerations, and the capability to do so are both simultaneously apparent. The emergency measures undertaken in response to the COIVD-19 pandemic already constitute an unprecedented break from the norms and practice of the prevailing political-economic paradigm, ranging from furlough schemes through explorations of monetary financing. While the mass rollout of vaccinations will take time, it is not unthinkable that 'normality' will be achieved by 2022. Many actors across society are now engaged in an influencing process to determine how the political-economic paradigm will evolve and if an epochal break will occur; to define what the new normal will look like. As the global scientific community has argued, the growing destabilisation of the climate system and the wider biosphere requires in particular a "fundamental, system-wide reorganisation across

technological, economic and social factors, including paradigms, goals and values" (IPBES 2019).

As many governments, campaigners, businesses and so on recognise, the COVID-19 pandemic has, in many respects, provided an archetypal opportunity for 'change through crisis'. But, as this essay has argued, the success of such efforts will increasingly be a function of their ability to navigate the strategic implications of the constantly evolving and destabilising domain of risk emerging from environmental breakdown and its interaction with existing and emerging socioeconomic and political trends. The nature of crisis is changing, and, in many ways, we are all newcomers to the world that has emerged as a result of environmental breakdown. As a consequence, the new 'planetary state' inaugurated by environmental breakdown likely requires those seeking change to question the use of prevailing heuristics of change, particularly current strategies of 'change through crisis', and to seek new skills and actors to form part of an ecosystem of influence capable of driving the necessary scale and pace of change under conditions of growing destabilisation. In doing so, the responsibility placed on the shoulders of younger generations could be particularly acute. The median age of a European leader is 52 and so assuming a continuation in current political trends, the Millennial generation will reach positions of leadership in the late 2030s and into the 2040s. By this point, the global mean temperature rise is anticipated to be between 1.5C and 2C, exacerbating worsening breakdown in other natural systems. The politics of younger generations is already having an impact, spurred on by a growing recognition of a climate emergency and the consequences of high levels of inequality and marginalisation. A key question for those in these generations who are seeking paradigmatic change is: if future crises could be overwhelmingly destructive, even terminal, what alternative strategies can be deployed that do not primarily seek change through crisis?

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