Rebuilding a Resilient Britain: Trade and Aid

Report from Areas of Research Interest (ARI) Working Group 9

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Foreword

The COVID-19 pandemic presents a fundamental challenge to our society, economy, and ways of living. We need to ensure that our response to these challenges is informed by the best possible evidence, by engaging with the right stakeholders. As a first step toward this goal, the 'Rebuilding a Resilient Britain' programme of work was launched in July 2020 to bring together researchers, funding bodies and policy makers to identify evidence and uncover research gaps around a set of cross-cutting Areas of Research Interest.

ARIs were initially developed in response to the recommendations of the *2014 Nurse Review of Research Councils*, which called on government departments to communicate clearly where their research objectives lie. The ARIs take the form of an annually updated list of priority research questions, which invite the academic community to engage with government departments to inform robust evidence-based policy making.

With the advent of the COVID-19 pandemic, however, it became clear that the societal issues affecting Britain's recovery over the medium- to long-term cut across departments. The ESRC/GOS ARI Fellows therefore worked with the CSAs and Council for Science and Technology to identify a set of ARIs relevant across all departments and sectors. Under the meta-themes of **Rebuilding Communities**, **Environment and Place**, and **Local and Global Productivity,** each led by two CSAs, nine Working Groups were formed:

Rebuilding Communities led by Robin Grimes (MoD Nuclear CSA) and Osama Rahman (DfE CSA)	**Environment and Place** led by Robin May (FSA CSA) and Andrew Curran (HSE CSA)	**Local and Global Productivity** led by Paul Monks (BEIS CSA) and Mike Short (DIT CSA)
1. Vulnerable Communities	5. Supporting Lower-Carbon Local Economies	8. Local and National Growth
2. Supporting Services	6. Land Use	9. Trade and Aid
3. Trust in Public Institutions	7. Future of Work	
4. Crime Prevention		

With input from the Universities Policy Engagement Network, UKRI, the What Works Centres, and the National Academies, each Working Group was populated with subject experts and representatives from funding bodies and government departments.

The working groups met several times over the summer and used their networks to:

a. identify a diverse range of existing or ongoing research,

b. synthesise evidence which can be quickly brought to bear on the issues facing departments
c. identify research gaps in need of future investment.

This report represents the culmination of the work of one of these Working Groups. The expedited timeframe of this work, along with their specific areas of expertise, led to some variation in how each group approached the task. It should be noted that this document represents the views of the Working Group members and is not indicative of government policy.

As well as providing deep expert reflection on the cross-cutting ARIs, it is hoped that these reports, and the work that led to it, will prompt further collaboration between government, academia, and funders. Working across government and drawing from the extensive expertise of our academic community will be essential in the recovery from the COVID-19 pandemic, to rebuild a resilient Britain.

Kathryn Oliver and Annette Boaz
ESRC/GOS ARI Fellows, on behalf of the ARI team within GOS

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List of acronyms

AI	Artificial Intelligence
ARI	Area of Research Interest
AHRC	Arts and Humanities Research Council
BAME	Black, Asian and Minority Ethnic
BBSRC	Biotechnology and Biological Sciences Research Council
BEIS	Department for Business, Energy and Industrial Strategy
CBI	Confederation of British Industry
CJS	Criminal Justice System
CO	Cabinet Office
COVID-19	Coronavirus Disease 19
CSA	Chief Scientific Advisor
DCMS	Department for Digital, Culture, Media and Sport
Defra	Department for Environment, Food and Rural Affairs
DfE	Department for Education
DfT	Department for Transport
DH	Department of Health
DHSC	Department of Health and Social Care
DIT	Department for International Trade
DWP	Department for Work and Pensions
EPSRC	Engineering and Physical Sciences Research Council
ESRC	Economic and Social Research Council
FCDO	Foreign, Commonwealth and Development Office
FSA	Food Standards Agency
GCSA	Government Chief Scientific Advisor
GOS	Government Office for Science
HMRC	Her Majesty's Revenue and Customs
HMT	Her Majesty's Treasury
HO	Home Office
HSE	Health and Safety Executive
MHCLG	Ministry of Housing, Communities and Local Government
MoD	Ministry of Defence
MoJ	Ministry for Justice
MRC	Medical Research Council
NERC	Natural Environment Research Council
NGO	Non-Governmental Organisations
NICE	The National Institute for Health and Care Excellence
ONS	Office for National Statistics
PHE	Public Health England
R&D	Research and Development
SAGE	Scientific Advisory Group for Emergencies
SME	Small and Medium-sized Enterprises
STEM	Science, Technology, Engineering, and Mathematics
STFC	Science and Technology Facilities Council
UKRI	UK Research and Innovation

Contents

1. Chair's introduction

The UK faces an unprecedented series of challenges that have been presented by COVID-19, and this work is the first step in identifying areas to focus on as the UK recovers. This group was put together to look at the impact of COVID-19 on trade and supply chains, on patterns of consumption and on international diplomatic dynamics. This report considers a set of ARIs that are relevant to this theme. The group consisted of a mixture of officials and analysts from departments across government, and representatives from the What Works Network, National Academies, and UKRI.

I would like to thank everyone who gave their time to this piece of work in such a tight timeframe, especially during the summer holidays and with the necessity of remote working.

2. How the evidence was identified and collated

ARIs were identified by departments and prioritised by CSAs. The ARI Fellows presented a set of priority areas to the CSA network and the GCSA who identified which topics would be of most use to take forward. The Working Group used its own expertise and reached out to its networks to collect existing evidence in each of its ARIs, synthesise key messages and identify evidence gaps.

This working group was asked to consider 30 ARIs covering a very broad range of issues. To make the task manageable in the time, we identified clusters of ARIs, and members of the group volunteered to work in subgroups comprising individuals with expertise in one or more of the ARIs in each cluster. These subgroups sought to identify the evidence and evidence gaps using their own knowledge of the subject and their wider networks. A convenor for each of the subgroups brought together the key messages relating to the cluster of ARIs they were leading on and submitted a report on behalf of their subgroup.

Subgroups were encouraged to consult as widely as possible in the short time available to ensure that a diversity of voices was included in the process. They were also asked, where possible, to consult with policy and analytical colleagues in government departments. We also emphasised the importance of a systematic and transparent approach to evidence gathering.

Five online meetings of the whole group provided opportunities to discuss the process and share learning on the approach taken by each subgroup. They first collated existing evidence, asking for contributions from other group members. Subgroup convenors then summarised the key messages through a combination of email exchanges and online meetings. The chair and facilitator pulled together the key materials from each of the subgroups into an overall report.

3. Key messages

3.1. Impact on global trade and supply chains, particularly around changes to our food supply chains and maintaining access to key goods, and monitoring and preventing panic buying of key goods

The impact of COVID-19 on global trade and supply chains is uneven and multi-faceted. There is ongoing research to understand impacts across several academic disciplines, including Political Science, Economics, Law, and Business and Management.

There is some early evidence that COVID-19 has exposed and intensified interlocking forms of inequality within supply chains. As lead companies have sought to cope with collapsing demand, they have cancelled orders and refused to pay for goods already produced, which has led to widespread business closure and bankruptcy in producer countries.

To date, limited scholarly research has been conducted to understand the impacts of economic shocks and public health restrictions on global supply chains, including those that provide goods to UK consumers.

The research that has been conducted (or is in progress) points to impacts for:

- Workers: supply chain workers are experiencing heightening food insecurity, wage compression, mass layoffs often without legally mandated severance pay, and heightened vulnerability to modern slavery, child labour, and exploitation.
- Gender inequality: particularly in feminised sectors such as the garment industry, these dynamics are highly gendered, and may be reinforcing gender inequality.
- Wealth inequality: there is early evidence that these trends are increasing wealth inequality between executives and workforces.
- UK firms: may experience insecure supply and medium-term shortages, as well as higher prevalence of modern-day slavery and child labour in their overseas supply chains.
- UK consumers: may experience shortages and insecure supply of certain goods.

There is an urgent need to better understand these multi-faceted and interlocking impacts, and how they are repatterning global supply chains and trade.

The COVID-19 pandemic exposed the vulnerability of the UK's food system to supply chain shocks. It is widely known that the UK imports the majority of its fresh fruit (84%) and vegetables (46%), but the situation is even more stark than that: the European Union alone provides approximately 29% of our food, including 40% of our fresh vegetables and 37% of our fruit, with the overwhelming bulk of this coming from just two countries (Netherlands and Spain).

Although the UK's food system performed well during the pandemic, this performance needs to be understood within the context of our membership of the European Union Single Market. By contrast, the situation after the end of the Brexit transition period on 31 December 2020, even with a deal, covering tariffs and quotas, but not regulatory checks and customs bureaucracy tariffs is anticipated to lead to significant knock-on effects for the availability and affordability of food, especially fresh fruit and vegetables.

We need to increase UK self-sufficiency in food (especially horticulture) and diversify its trade, but also deal with the immediate inflationary effects of Brexit, especially for low-income consumers.

A related aspect of the COVID pandemic has been the light shed on food poverty linked to household food insecurity (HFI). HFI is notoriously difficult to quantify, with studies (e.g. Power 2019) reporting that proxy measures such as food bank use typically capture only about one-fifth of those suffering food insecurity. Even so, we know that foodbank use itself has expanded dramatically over the last decade – in the year preceding the onset of COVID-19, the UK's largest food bank charity, the Trussell Trust, distributed some 1.6 million food bank parcels, which represented a 26-fold increase on the previous year. We do not yet know how COVID-19 has impacted on the operation of food banks – and HFI more generally – but it is reasonable to infer that social distancing, lockdowns and changing patterns of retail and food consumption (especially the move to online shopping) have interrupted the mechanisms by which food banks and other forms of charitable giving function, e.g. in-store donations, volunteering, etc.

There is some data that COVID-19 changed consumption patterns. COVID-19 saw an increase in some people buying from local suppliers and has prompted a rise in grocery store prices.

Trade agreements impact on food security and food self-sufficiency. There is a push for greater protections for food security in the World Trade Organisation and within bilateral and multilateral free trade agreements.

The prevalence of HFI is poorly understood and more research and policy analysis are required to understand and measure this, especially in the light of the impacts of COVID-19 on food poverty and the operation of food banks. This is especially important because of the strong links between food poverty on life expectancy, macro- and micro-nutrient deficiency, obesity and mental health.

There has been both expansion and disruption in food and agriculture markets in recent decades and ongoing debates over the implications of international food trade for food security. Progressive concentration in recent decades has also reshaped

agri-food supply chains in ways that enhance the power and influence of large corporations within food systems.

3.2. How will COVID-19 impact on forecasted global peak oil demand? What implications does this have for the transition to renewable resources?

Peak oil cannot be accurately put in a timeframe. However, there is some speculation that 2019 (when the oil market consumed as much as 100 million barrels per day) could turn out to have been the peak for oil demand.

Likewise, the estimations about the impact of COVID-19 on the transition to low-carbon resources are not clear or definite. On the one hand, COVID-19 might accelerate the energy transition: this can occur if the emergency restrictions of fossil consumption (along with the alternatives of remote working, home delivery of goods, domestic travel, and teleconferencing) remain in place after the pandemic is over. The interest of investors (such as universities, banks, and pension funds) in fossils is currently in decline, with more and more stakeholders preferring cleaner (and more socially acceptable) energy recourses. As a result, several major oil companies are making a shift towards renewables. On the other hand, the pandemic might slow down the energy transition: the world's energy needs are expected to increase once the pandemic is over, causing a rise in the production and consumption of fossil fuels. Also, the financial crisis which COVID-19 caused has limited the capital resources for large investments in low-carbon projects. As a result, states and energy companies may not be able to meet their net-zero goals.

3.3. What impact will COVID-19 have on global attitudes to traditional medicines derived from animal products?

Campaigns to reduce demand for medicines that contain wildlife products can rely on stereotypes of undifferentiated consumers. There is variation in types of consumers & kinds of consumption, within societies and across different countries. There is an underacknowledged issue of race which underlies attitudes to traditional Chinese medicine. Demand reduction initiatives should be nuanced and appropriately targeted to be more effective and to avoid reproducing racist stereotypes.

Assuming consumers will accept farmed rather than wild caught/wild collected products is not based in evidence; policies & campaigns need to address the complexity of profiles of demand rather than focusing on simply replacing wild with farmed products.

3.4. How will the health and economic impacts of COVID-19 affect the attitude of governments and publics to the illegal wildlife trade?

The focus on live animal markets & wildlife products in Asia misses the role of intensive animal agriculture as a source of zoonotic disease transmission. There is a

need to address intensive farming and exploitative human relations with animals to prevent future pandemics.

The wildlife trade as a possible source of COVID-19 has prompted calls from NGOs and Governments (plus public support for such campaigns) to ban the legal trade in wild caught meat (also referred to as bushmeat). The commercial scale exploitation of wild caught meat can be unsustainable, but localised subsistence hunting is central to food security strategies of some of the most vulnerable and marginalized communities in the world. Calls for bans on wild caught meat have a capacity to undermine food security for these communities.

Campaigns to ban the legal trade also focus on wild caught meat in Africa, Asia and Latin America (and diasporas from those regions), overlooking consumption of wild caught meat in e.g. European species such as songbirds.

Legal, sustainable, and well-regulated trade in wildlife and wildlife products is an important economic sector. The recent calls to ban all wildlife trade do not adequately acknowledge the importance of such products in global trade.

3.5. What are the implications for stability of the Euro area?

The pandemic raises questions in relation to economic and political stability within the Eurozone and wider European Union (EU), including: Can the European Central Bank (ECB) make good on Christine Lagarde's “no limits” claim? Will the EU member states (and eurozone states in particular) be able to put in place a fiscal response to support the ECB’s monetary response and come close to establishing the fiscal union that many think monetary union will require in long term? What kinds of political divisions are likely to arise from these debates/ responses? What impacts might the response have on domestic politics in different member states?

It is not possible, at the moment, to provide definitive answers to these questions, but so far:

The ECB introduced the Pandemic Emergency Purchase Programme (PEPP) in March, which represents a more flexible form of quantitative easing (QE) than anything it has pursued before. It was successful in reducing spreads between Italian and German government debt early in the crisis and has been crucial for ensuring funding of member states during the crisis.

Most analysts believe there is an urgent need for an ambitious fiscal response from member states. The ECB cannot pursue QE indefinitely. This became even more apparent in light of the German constitutional court ruling of 5th May on (an earlier form of) QE. The re-emergence of post-2009 divisions along broadly north-south/creditor-debtor lines within the eurozone/EU initially did not bode well for the possibility of a meaningful response from governments.

But in a notable softening of Germany’s usual position on anything resembling a fiscal union or debt mutualisation (and perhaps as a direct response to the German

court), Merkel and Macron jointly announced proposals that would allow the EU to borrow collectively and disperse funds in the form of grants. Current European Commission proposals for a rescue fund are based on the Merkel-Macron proposals: these would according to the Commission increase the EU's 'financial fire power' to €1.85 trillion.

There remains important opposition to these proposals in the form of the so-called 'frugal four' of Denmark, Sweden, Austria and (in particular) the Netherlands.

Whatever the EU does there is likely to be political upheaval in a context of rising populism. If the EU is able to pursue a more ambitious agenda towards fiscal integration, there is likely to be domestic opposition in the frugal four, but also in Germany (and perhaps Finland). If the EU is not able to pursue an ambitious agenda there will likely be domestic opposition in Spain and Italy. Euroscepticism in Italy is at notably high levels.

3.6. How are state and non-state actors adjusting their approaches to geopolitical issues during the course of the pandemic?

Some companies have refused to pay for products produced in their supply chains and cut them off. Others have acted to support those in their supply chain, most of which are in developing countries and which have no government support. This has raised issues about sustainable and resilient supply chains, and how companies should respond to human rights issues within their supply chain.

Some states have refused to provide financial support to companies which are incorporated in tax havens or have no positive policies in relation to their supply chains (see https://bhrrc.org/en/covid-19-coronavirus-outbreak).

This has an impact on how the UK proposes to support its businesses in their trading activities.

3.7. Supporting trade recovery

From the legal perspective, recovery requires a strong insolvency/restructuring legal regime.

The government introduced measures to avoid insolvency and support recovery. It is important to monitor the effectiveness of the measures as well as their impact on supply chains and third parties/stakeholders of businesses.

It is especially crucial to investigate the effectiveness of the legal regime in addressing the distress of small businesses (after the temporary measures expire), to promote a quick recovery and a fresh start for small companies and sole trader entrepreneurs, while maximizing returns for creditors. This can be achieved through the collection and analysis of data on corporate insolvencies available through the Companies House Beta Service. Reports filed with the service will assist in

determining the extent to which the new measures are being used and their effectiveness in the short and medium term.

The regime should also deal effectively with cross-border distress where businesses operate in more than one country, to promote rescue where the business or some of its aspects are viable. The UK adopted the United Nations Commission on International Trade Law (UNCITRAL) Model Law on Cross-Border Insolvency in 2006. It has not yet adopted the new model laws introduced by UNCITRAL in 2018-19.

Post-Brexit, it is important to have in place a strong cross-border insolvency system as the EU regulation on insolvency proceedings will no longer apply.

3.8. The compatibility of COVID-19 related restrictions with human rights law obligations or with other obligations under international law

There is a growing number of legal cases being brought around the world in relation to whether COVID-19 restrictions are infringing on human rights. It is important to be aware of these cases in order to reflect on policies made and to be determined.

3.9. What are the public and state attitudes in China and the US towards the provision of 'global goods', particularly health provision in developing nations (for example hospital building or support for NGOs and the World Health Organisation)? How is the 'global good' narrative promoted at home and overseas?

China's approach in providing global goods via marketing and its impact on international law and global market governance systems, e.g. World Trade Organisation and World Health Organisation.

This is related to the above implication and can be more critical. How to effectively engage with China in its emergence through the provision of public good in a global pandemic? This begs us to critically understand China's mindset and conceptualization of public good in a changing global landscape.

4. Evidence Gaps

4.1. Impact on global trade and supply chains

There is a need to understand and compare (e.g. across county, industry, portion of the supply chain, and type of worker) how COVID-19 is impacting the patterns of modern slavery and child labour within supply chains providing goods to UK consumers. Has the pandemic, and government and company responses to it, altered patterns of demand for forced labour in supply chains? How do producer government responses (e.g. lockdown, stimulus spending) impact workers, suppliers, and the status of production (including sustainability and stability of supply

to the UK)? Is the effectiveness of supply chain governance (e.g. ethical auditing, certification, due diligence legislation like the UK Modern Slavery Act) being transformed amidst the pandemic? Professor Genevieve LeBaron is beginning to investigate these questions through a small AHRC grant that commences Sept 30th 2020, but larger scale funding is needed for a larger, scaled up, and more comprehensive study.

4.2. How will COVID-19 impact on forecasted global peak oil demand? What implications does this have for the transition to renewable resources?

The impact of COVID-19 on oil, and its implications for the energy transition are yet to be quantified and assessed. It is proposed that a multidisciplinary network is established (across the fields of law, business, science and engineering) in order to address the above issues and identify the lessons which the energy sector/governments/regulators/stakeholders can draw from the current situation. The network should conduct joint research and communicate their findings/recommendations via academic publications, impact studies or reports.

4.3. What impact will COVID-19 have on global attitudes to traditional medicines derived from animal products?

There is a gap in our knowledge about whether COVID-19 is changing attitudes in communities that consume traditional medicines: **has it prompted a turn away from traditional medicines, increased demand or triggered a switch away from certain animal products but towards others?** Bring together researchers focused on public health, traditional Asian medicine and wildlife trade to understand the nuances of demand for wildlife products for medicinal use: the different profiles of consumer demand in Asia and Asian diasporas; the differences between and within countries; drivers of successes in changing consumer behaviour. Calls for evidence, support for establishment of networks of expertise, research programmes.

4.4. How will the health and economic impacts of COVID-19 affect the attitude of governments and publics to the illegal wildlife trade?

A research programme bringing together social sciences with Arts and Humanities would be valuable to develop understandings of government responses and public attitudes to illegal wildlife trade, as well as legal wildlife trade since the two are bound together, in particular to:

- Seek the perspectives of relevant stakeholders e.g. animal welfare campaigners, conservation NGOs, wildlife traders, transport and shipping companies, government ministries etc.
- Differentiate between attitudes to health and to economic impacts; differentiate between countries and regions. Research on illegal wildlife trade is shaped by natural sciences/conservation biology, and thus shed important light on rates, dynamics and impacts on the trade but is ill-equipped to address the social, political and economic implications.

- Bring together experts from Politics, Sociology, Human Geography and Criminology to **understand and address the differentiation in public attitudes:** Are there gendered differences in attitudes to health and economic impacts? If so, what are they? Are there differences in attitudes shaped by race, ethnicity, age, sexual orientation, religious affiliation, economic position etc. Which publics are the focus? Are there differences between e.g. public attitudes in Vietnam, Kenya, UK, US etc.

There is a pressing and growing gap in knowledge around the **actual and potential social and ecological justice implications of shifts in attitudes** of governments and publics to the illegal wildlife trade. These questions are central to the concerns of political ecologists. The rapid development of new regulations, including bans on wildlife trade could be undermining the food security of marginalised communities in the global South (especially Sub-Saharan Africa). How are such new regulations and bans implemented? Are they accompanied (especially in Africa) with militarisation, enhanced forms of law enforcement that could lead to human rights abuses (as evidenced in other conservation enforcement initiatives)? Is there any weight to claims that the collapse in tourism as a result of COVID has led to increased poaching rates? These claims are stated by key stakeholders, but thus far there is little evidence to substantiate them. This will require longer term research, co-produced with wildlife dependent communities.

In what ways can we reconfigure human-animal relations to prevent future pandemics? In order to address this we need to bring together experts in animal studies such as philosophers, political theorists, human geographers and sociologists with key stakeholders such as farmers, wildlife traders, wildlife consumers, health professionals, food justice activists and climate change activists; focus groups, themed workshops this can be used to develop new and innovative systems for more effective and socially just relations between humans and animals to prevent disease transmission.

How does COVID and the illegal wildlife trade intersect with wider forms of environmental crime? Illegal wildlife trade is often carried out by networks engaged in other forms of crime including environmental crime. What are the crime, security and biosecurity implications? This will require bringing together expert panels and research programmes that draw on the expertise of critical criminology, law geography, politics, and international relations.

- What are the social, political, and ethical dimensions of increasing reliance on surveillance technology and artificial intelligence for tracking, intercepting and monitoring illegal wildlife trade? Such technologies have immense potential for tackling illegal wildlife trade, but their wider impacts are poorly understood.

Addressing this gap in our knowledge will require bringing together technology experts with social scientists.

4.5. What are the implications for stability of the Euro area?

Research agendas could focus in future on the following: tracing the unfolding events described above; assessing the viability and potential of EU policies for confronting the crisis (e.g. green deal, etc.); analysing the political reactions to EU/eurozone responses including research on domestic politics and public opinion in different member states; research on potential 'disintegration' of EU in view of this latest crisis; considering the position of the EU/eurozone in broader geopolitical context.

4.6. How will global patterns of consumption, saving and investment change post-COVID? How will productivity growth change?

We propose an interdisciplinary research program to investigate: How can the international trade regime and UK trade policy be designed to support efforts to decarbonise the global economy and protect vital ecosystems? How can multinational corporations be regulated at international level, through domestic law and regulation, or through public purchasing policies to ensure conformity with international and domestic environmental, human rights and labour protection goals? How can multinational corporations be effectively taxed? This would also explore how human rights could provide a framework for thinking about responding to poverty, inequality and the climate emergency post-COVID, placing human rights at the centre of policy making.

4.7. How are state and non-state actors adjusting their approaches to geopolitical issues during the course of the pandemic?

To address this, a 2-3-year research project would track the actions taken by companies, including SMEs, to the pandemic, in relation to their national and international supply chains. This could be viewed in relation to sectors, geographic locations, and conflict issues in their supply chains. Innovative practice can be examined to gauge how companies are responding to the crisis, and whether such innovations might map well onto the post-COVID commercial landscape (see https://www.nottingham.ac.uk/research/groups/commercial-law-centre/covid-19-research.aspx).

Another research project (1-2 years) would analyse the impact on companies of legislation and practices by UK and other comparable governments in their regulatory responses to the pandemic. This would include empirical research of corporate responses to these changes and compare the UK position to that in other jurisdictions and international standards. This comparative and international research would investigate the application of any new legislation, case law, treaty or other regime that will emerge post-Brexit and identify gaps and areas for improvement.

4.8. Supporting trade recovery

To address this, a 2-3-year research project would track the impact of the pandemic on the volume and nature of corporate insolvencies in the UK. It will collect and analyse data on corporate insolvencies available through the Companies House Beta Service. Reports filed with the service will assist in determining the extent to which the new insolvency/rescue measures are being used and their effectiveness in the short and medium term. Sectoral impact can be illustrated, as can the extent to which employment is lost as a result of corporate insolvencies. Further, such research can examine how insolvency professionals use existing insolvency strategies and the COVID-generated government initiatives during the pandemic, and to what effect. Innovative practices can be examined to gauge how practitioners are responding to the crisis, and whether such innovations might map well onto the post-COVID commercial landscape (see https://www.nottingham.ac.uk/research/groups/commercial-law-centre/covid-19-research.aspx).

Another research project (2-3 years) can focus on SMEs to ascertain which of the existing and new tools are mostly used by small businesses, and whether such usage leads to optimal outcomes. A comparative analysis would also identify areas where the regime could be enhanced. It will also investigate the UK regime against the backdrop of the forthcoming international standards on micro and small enterprise insolvency (UNCITRAL/World Bank).

Research in cross-border insolvency would investigate the application of any new law, treaty or other regime that will emerge post Brexit to replace the EU insolvency regulation, to identify gaps and areas for improvement against the backdrop of the global regime and the new model laws.

4.9. The compatibility of COVID-19 related restrictions with human rights law obligations or with other obligations under international law

To address this, a 2-year project would track the cases in the UK and elsewhere to consider what human rights issues are raised and the response of courts, governments and business to these cases. This will include a consideration of different human rights affected, the claimants, respondents, and the court decisions. It will also track the impact of these decisions. This will assist in gauging the likely effect of human rights issues, especially when raised in courts, on COVID restrictions, and policies going forward (see https://www.nottingham.ac.uk/hrlc/abouthrlc/introduction.aspx).

Annex 1: List of participants and contributors

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Annex 2: List of ARIs considered by this group

1. Impact on global trade and supply chains, particularly around changes to our food supply chains and maintaining access to key goods, and monitoring and preventing panic buying of key goods
2. How will COVID-19 impact on forecasted global peak oil demand? What implications does this have for the transition to renewable resources?
3. Exploring the opportunities to improve the way people and goods move in the UK including longer distance travel and last mile deliveries
4. Monitoring and preventing panic buying of key goods
5. Changes to our food supply chains and maintaining access to key goods
6. What impact will COVID-19 have on global attitudes to traditional medicines derived from animal products?
7. How will the health and economic impacts of COVID-19 affect the attitude of governments and publics to the illegal wildlife trade?
8. How will the composition of sovereign debt change in countries post-COVID?
9. What are the implications for stability of the euro area?
10. How will global patterns of consumption, saving and investment change post-COVID? How will productivity growth change?
11. How are state and non-state actors are adjusting their approaches to geopolitical issues during the course of the pandemic?
12. Analysis of the role of soft power efforts, public diplomacy and international aid in geopolitical contest between larger powers
13. Analysis of the impacts of the pandemic on international cooperation and relationships between states
14. International institutions
15. Analysis of the impact of COVID-19 on key constituencies' approach to global governance and to particular institutions or groups of them within the multilateral system
16. Analysis of the responses of, and dynamics within and between, multilateral institutions and the implications of these developments for global governance as a whole
17. Analysis of possible reforms to the World Health Organisation and of measures to improve implementation of the International Health Regulations
18. Supporting trade recovery
19. Market access and non-tariff measure
20. What methods enable evaluation of a country's sectors and regions of dynamic comparative advantage?
21. What is the role of trade and investment in national economic performance indicators, for example, national and regional growth, employment and macroeconomic stability?
22. What factors make countries attractive as places for investment in high potential, early stage, technology-based business and entrepreneurs?

23. The compatibility of COVID-19 related restrictions with human rights law obligations or with other obligations under international law
24. Analysis of the extent to which sanctions inhibit humanitarian responses to pandemics and the impact of humanitarian exemptions on sanctions policy
25. Analysis of international polling and other survey indicators of the impact on public attitudes towards globalisation. Are there differences between developed vs. lower- and middle-income countries, or generational differences, and do these suggest significant changes compared to results from recent decades?
26. What are the public and state attitudes in China and the US towards the provision of 'global goods', particularly health provision in developing nations (for example hospital building or support for NGOs and the World Health Organisation)? How is the 'global good' narrative promoted at home and overseas?
27. How will COVID affect the rate of technological adoption around the world and what will that mean for the structure of the global economy in the future, and the balance of trade?
28. How can UK trade policy best support recovery from COVID-19 and wider international development? How can policy levers such as trade agreements, unilateral trade preferences and tariffs be used to support economic development and poverty reduction in developing countries?
29. How can we better understand the impact of COVID-19 on trade in services and support developing countries trade in services given the lack of reliable data?
30. Which global economic sectors (e.g. agriculture, aerospace, financial services) are most likely to grow and shrink in a post-COVID world?

Annex 3: Evidence and resources relevant to ARIs

ARI	Resource
1. Impact on global trade and supply chains, particularly around changes to our food supply chains and maintaining access to key goods, and monitoring and preventing panic buying of key goods	Policy report: International Labour Organization (2020) 'Covid-19 and the World of Work, 5th ed' Civil society policy report: European Center for Constitutional and Human Rights, International Lawyers Assisting Workers & Workers Rights Consortium (2020) *Farce Majeure: How Global Apparel Brands Are Using the COVID-19 Pandemic to Stiff Suppliers and Workers.* Academic policy report: M. Anner (2020) *Abandoned? Impact of Covid-19 on Workers and Businesses at the Bottom of Global Garment Supply Chains.* Civil society report: CCC (2020) *Un(der)paid in the Pandemic.* P. Nilsson, 'Asia's Garment Workers Lose Out on $6bn after pandemic cuts,' *Financial Times.* J. Fine, D. Galvin, J. Round, & H. Shepherd (2020) *Maintaining Effective US Labor Standards Enforcement Through the Coronavirus Recession.* Interview with leading academic: J. Hacker (2020) 'Will COVID-19 Worsen Inequality in the United States?' Yale Insights. Academic book. G. LeBaron (2020) *Combatting Modern Slavery: Why Labour Governance is Failing and What We Can Do About It.* Academic report. G LeBaron (2018) *The Global Business of Forced Labour: Report of Findings.* United Nations Committee on World Food Security High Level Panel of Experts on Food Security and Nutrition (HLPE) *Food Security and Nutrition: Building A Global Narrative Towards 2030.* Economics Observatory, 'How is coronavirus affecting emerging markets and developing economies?' Economics Observatory. 'Which firms and industries have been most affected by Covid-19?' Academic journal article: D. Kolcava, L. Rudolph, & T. Bernauer (2020) 'Voluntary Business Initiatives Can Reduce Public Pressure for Regulating Firm Behaviour Abroad.' *Journal of European Public Policy.* Consumer trackers – such as Food Standards Agency trackers COVID-19 and existing Public Attitudes offer data to better understand consumption trends. Research in progress by Dr Anna Krzywoszynska (initial findings will be available shortly). Economics observatory, 'How has coronavirus affected prices in the supermarket?' Lang, T. (2020) Feeding Britain: Our food problems and how to fix them. Book published by Pelican Books.

	United Nations Committee on World Food Security High Level Panel of Experts on Food Security and Nutrition (HLPE) *Food Security and Nutrition: Building A Global Narrative Towards 2030*. T. Heron, 'COVID-19 is a reminder of how deeply the UK's food security is dependent on the EU', London School of Economics Brexit Blog, May 2020; P. Garnet, B. Doherty & T. Heron, 'Vulnerability of the United Kingdom's food supply chains exposed by COVID-19', Nature: Food, 1, 315-18 (2020): https://www.coronavirusandtheeconomy.com/question/how-has-coronavirus-affected-prices-supermarket
2. How will COVID-19 impact on forecasted global peak oil demand? What implications does this have for the transition to renewable resources?	• International Energy Agency (IEA), Global Energy Review 2020: The Impacts of the COVID-19 Crisis on Global Energy Demand and CO2 Emissions (2020) 3-4. • IEA, The Oil and Gas Industry in Energy Transitions (2020) 12. • IEA, Oil Market Report (2020). • Oxford Institute for Energy Studies, 'Decarbonization Pathways for Oil and Gas' (2020) 212 Forum 3-5; 9-13. • Reuters', Energy Transition Status Report: What next for Net-Zero? (August 2020) 6-7; 12-13. https://www.coronavirusandtheeconomy.com/question/how-will-coronavirus-affect-uks-oil-and-gas-industry
3. Exploring the opportunities to improve the way people and goods move in the UK including longer distance travel and last mile deliveries	https://www.coronavirusandtheeconomy.com/question/how-can-production-network-analysis-inform-policy-covid-19
6. What impact will COVID-19 have on global attitudes to traditional medicines derived from animal products?	J. Margulies, R. Wong and R. Duffy (2019) Imaginary Asian Super Consumer: A Critique of Demand Reduction Campaigns for Illegal Wildlife Trade' Geoforum, 107, 216-219 https://www.sciencedirect.com/science/article/pii/S0016718519302945?via%3Dihub https://www.theguardian.com/environment/2020/apr/15/mixed-with-prejudice-calls-for-ban-on-wet-markets-misguided-experts-argue-coronavirus
7. How will the health and economic impacts of COVID-19 affect the attitude of governments and publics to the illegal wildlife trade?	A. Cochrane (2020) Animal Exploitation and COVID-19: Is the darkest hour just before the dawn? Why Eat Wild Meat? International Institute for Environment and Development (IIED) Darwin Initiative Project 2018-2021

	https://www.iied.org/why-eat-wild-meat Literature review/initial findings of the IIED project https://www.cbd.int/doc/c/c7e8/3ab4/dbfb512d72dcb56952d8a0ea/sbstta-23-inf-21-en.pdf Duffy, R. and F.A.V. St. John (2013). *Poverty, Poaching and Trafficking: What are the links?.* Consultancy Report for DFID, June 2013. Evidence on Demand Report HD059. https://xg6j3oqcgf397pv1122fduwp-wpengine.netdna-ssl.com/wp-content/uploads/EoD_HD059_Jun2013_Poverty_Poaching.pdf Duffy, R., (2016) *EU Trade Policy and the Wildlife Trade* (Brussels, European Parliament) https://xg6j3oqcgf397pv1122fduwp-wpengine.netdna-ssl.com/wp-content/uploads/EU-Trade-Policy-and-the-Wildlife-Trade.pdf Also see UKRI-Global Challenges Research Fund Trade Hub https://tradehub.earth/about-us/ https://www.coronavirusandtheeconomy.com/question/does-environmental-damage-increase-risk-pandemics
8. How will the composition of sovereign debt change in countries post-COVID?	https://www.coronavirusandtheeconomy.com/question/how-coronavirus-affecting-emerging-market-and-developing-economies https://voxeu.org/article/post-pandemic-debt-sustainability-eueuro-area
9. What are the implications for stability of the euro area?	Given the paucity of hard accurate data, this was compiled from relevant expertise in the Sheffield Political Economy Research Institute, and their recent blogs: Dr. Owen Parker- EU, European political economy, Eurozone southern 'periphery' Prof. Simon Bulmer - EU, European political economy, Eurozone, Germany Dr. Patrick Kaczmarczyk - EU, European political economy, Eurozone, Germany, France, Central and Eastern Europe *Blog:* Kaczmarczyk, *'Coronavirus crisis: There is no way back to business as usual in the EU'*

	Blog: Kaczmarczyk, *'Coronabonds are a pragmatic response to a crisis —and are not about cross-EU transfers or solidarity'* Dr. Scott Lavery - EU, European political economy in global context, Central and Eastern Europe Prof. Andrew Baker - Macro-prudential regulation; central banking
10. How will global patterns of consumption, saving and investment change post-COVID? How will productivity growth change?	https://www.coronavirusandtheeconomy.com/question/what-will-happen-if-international-trade-and-mobility-are-permanently-reduced https://www.coronavirusandtheeconomy.com/question/how-can-production-network-analysis-inform-policy-covid-19 https://www.coronavirusandtheeconomy.com/question/which-firms-and-industries-have-been-most-affected-covid-19
11. How are state and non-state actors are adjusting their approaches to geopolitical issues during the course of the pandemic?	Companies have reacted differently in relation to their supply chains as a response to COVID-19. This can depend on both the location of the main parts of the supply chain and the financial support being provided by governments. There have been a range of responses to the pandemic from international, regional, and national governments, companies and organisations. Some of these are summarised here: https://www.business-humanrights.org/en/from-us/covid-19-action-tracker/methodology/ As part of this response, the EU has begun the process to introduce requirements on all companies operating in the EU to have mandatory human rights and environmental due diligence: The commitment was made during a Webinar hosted by the Responsible Business Conduct Working Group of the European Union, 29 April 2020, available at: https://vimeo.com/413525229. The UK Modern Slavery Act and the Bribery Act are examples of these types of legislative actions in the UK. This is based on a study for the European Commission: https://op.europa.eu/en/publication-detail/-/publication/8ba0a8fd-4c83-11ea-b8b7-01aa75ed71a1/language-en
13. Analysis of the impacts of the pandemic on international cooperation and relationships between states	https://www.coronavirusandtheeconomy.com/question/does-world-economy-face-danger-rising-protectionism
15. Analysis of the impact of COVID-19 on key	https://www.coronavirusandtheeconomy.com/question/does-world-economy-face-danger-rising-protectionism

constituencies' approach to global governance and to particular institutions or groups of them within the multilateral system	
18. Supporting trade recovery	https://www.ons.gov.uk/businessindustryandtrade/business/businessservices/bulletins/coronavirusandtheeconomicimpactsontheuk/22october2020 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/905038/Company_Insolvencies_-_Commentary_-_Q2_2020_final.pdf The COVID-19 pandemic and the health measures implemented have severely affected the economy and led to a recession. The health crisis might be followed by an 'insolvency pandemic' (a 'flood' of bankruptcies). Amongst the most affected sectors are the accommodation and food services and the arts, entertainment, and recreation industry. Small businesses are especially vulnerable and are under the most intense pressure as they tend to have limited financial resources and reserves. National governments have formulated strategies to assist companies through the course of the pandemic in the hope of minimising both the numbers of insolvencies and the economic and social damage generated as a result. In the UK, in addition to various measures to support economic recovery and prevent insolvency (including the Coronavirus Job Retention Scheme; the Coronavirus Business Interruption Loan Scheme; the Small Business Grant Fund and the Retail, Hospitality and Leisure Grant Fund; the high street vouchers scheme), a new law entered into force– the Corporate Insolvency and Governance Act 2020. It includes temporary measures to avoid unnecessary insolvencies of companies, as well as permanent measures to enhance the rescue and recovery regime. For a critical appraisal of the earlier consultation on which the new Corporate Insolvency and Governance Act builds, see Frisby, 'Of Rights and Rescue: a Curious Confluence?' 20 Journal of Corporate Law Studies 2020 (https://www.tandfonline.com/doi/abs/10.1080/14735970.2019.1615165). It has been shown that SMEs are the backbone of any economy, representing 99pc of businesses; insolvency and recovery measures should focus on ensuring easy access to procedures and cheap processes with limited court involvement, giving debtors and creditors a set of alternative tools to choose from to fit different business circumstances (see Davis et al, Micro, Small, and Medium Enterprise Insolvency: A modular Approach (Oxford University Press 2018). See also: forthcoming international standard on Micro, Small, and Medium Enterprise (MSME) insolvency, developed by the United Nations Commission on

	International Trade Law (UNCITRAL) (see Draft Text on a Simplified Insolvency Regime, https://undocs.org/en/A/CN.9/WG.V/WP.170); Report on the treatment of MSME insolvency (English). Washington, D.C.: World Bank Group. http://documents.worldbank.org/curated/en/973331494264489956/Report-on-the-treatment-of-MSME-insolvency. UNCITRAL has also developed two new model laws in 2018-19 to enhance the regime for cross-border insolvency (on enterprise groups insolvency and on the recognition and enforcement of insolvency-related judgments) (https://uncitral.un.org/en/texts/insolvency; see also Mevorach, The future of Cross-Border Insolvency: Overcoming Biases and Closing Gaps (Oxford University Press 2018); Mevorach, 'Overlapping international instruments for enforcement of insolvency judgments: undermining or strengthening universalism?' European Business Organisation Law Review (forthcoming) https://nottingham-repository.worktribe.com/output/4758905). https://www.coronavirusandtheeconomy.com/question/does-world-economy-face-danger-rising-protectionism
19. Market access and non-tariff measure	https://www.coronavirusandtheeconomy.com/question/does-world-economy-face-danger-rising-protectionism
20. What methods enable evaluation of a country's sectors and regions of dynamic comparative advantage?	https://www.coronavirusandtheeconomy.com/question/how-will-economic-effects-coronavirus-vary-across-areas-uk
21. What is the role of trade and investment in national economic performance indicators, for example, national and regional growth, employment and macroeconomic stability?	https://www.coronavirusandtheeconomy.com/question/how-will-economic-effects-coronavirus-vary-across-areas-uk
23. The compatibility of COVID-19 related restrictions with human rights law obligations or with other obligations under international law	There are an increasing number of claims being made in court and elsewhere about the compatibility with human rights, such as the right to work, the right to food, the right to freedom of movement and the right to freedom of expression, of COVID restrictions. https://www.business-humanrights.org/en/big-issues/covid-19-coronavirus-outbreak/covid-19-human-rights-defenders-and-civic-freedoms/
26. What are the public and state attitudes in China and the	The state attitude in China towards the provision of global goods can be summarized as follow:

US towards the provision of 'global goods', particularly health provision in developing nations (for example hospital building or support for NGOs and the World Health Organisation)? How is the 'global good' narrative promoted at home and overseas?	1. The general background is that the state has been keen to become a leader in the norms-making in the changing global landscape. 2. Research has been done systematically to understand the western conceptualization of global goods and especially impure public goods. 3. China's approach aims to a. enhance input to the development of public goods, b. broaden the sphere of public goods and be innovative. c. focus on the strategic benefits obtained through the provision of public goods but not the pure public benefits. To this end, China aims to focus on the development of marketing and supply of public goods to achieve effective intervention. 4. The COVID pandemic provides the window for China to apply such approach. See China Institute of International Affairs Report on China and World Part II available here http://www.gcms.org.cn/download/%E2%80%9C%E4%B8%AD%E5%9B%BD%E4%B8%8E%E4%B8%96%E7%95%8C%E2%80%9D%E7%B3%BB%E5%88%97%E6%8A%A5%E5%91%8A%E4%B9%8B%E4%BA%8CEN.pdf For China's conceptualization of public good see Journal Articles: • Yi Liu, 2016, Global Public Goods and the Role of Emerging Power: Considering the Concept of Impure Public Goods, Vol.2 2016, China and International Relations 84 -95. (In Chinese) • Cao De jun, 2019, China's Supply Model of Public Goods, International Relations Theory. (In Chinese) See also Newspaper piece: Join hands to win the battle against the epidemic in the spirit of a community with shared future, People's Daily, Feb. 6, 2020, Page 3.
27. How will COVID affect the rate of technological adoption around the world and what will that mean for the structure of the global economy in the future, and the balance of trade?	https://www.coronavirusandtheeconomy.com/question/what-will-coronavirus-mean-innovation-firms
28. How can UK trade policy best support recovery from COVID-19 and wider international development. How can policy levers such as trade agreements, unilateral trade	https://www.coronavirusandtheeconomy.com/question/what-happens-trade-global-downturn

preferences and tariffs be used to support economic development and poverty reduction in developing countries?	
29. How can we better understand the impact of COVID-19 on trade in services and support developing countries trade in services given the lack of reliable data?	https://www.coronavirusandtheeconomy.com/question/what-will-happen-if-international-trade-and-mobility-are-permanently-reduced
30. Which global economic sectors (e.g. agriculture, aerospace, financial services) are most likely to grow and shrink in a post-COVID world?	https://www.coronavirusandtheeconomy.com/question/which-firms-and-industries-have-been-most-affected-covid-19