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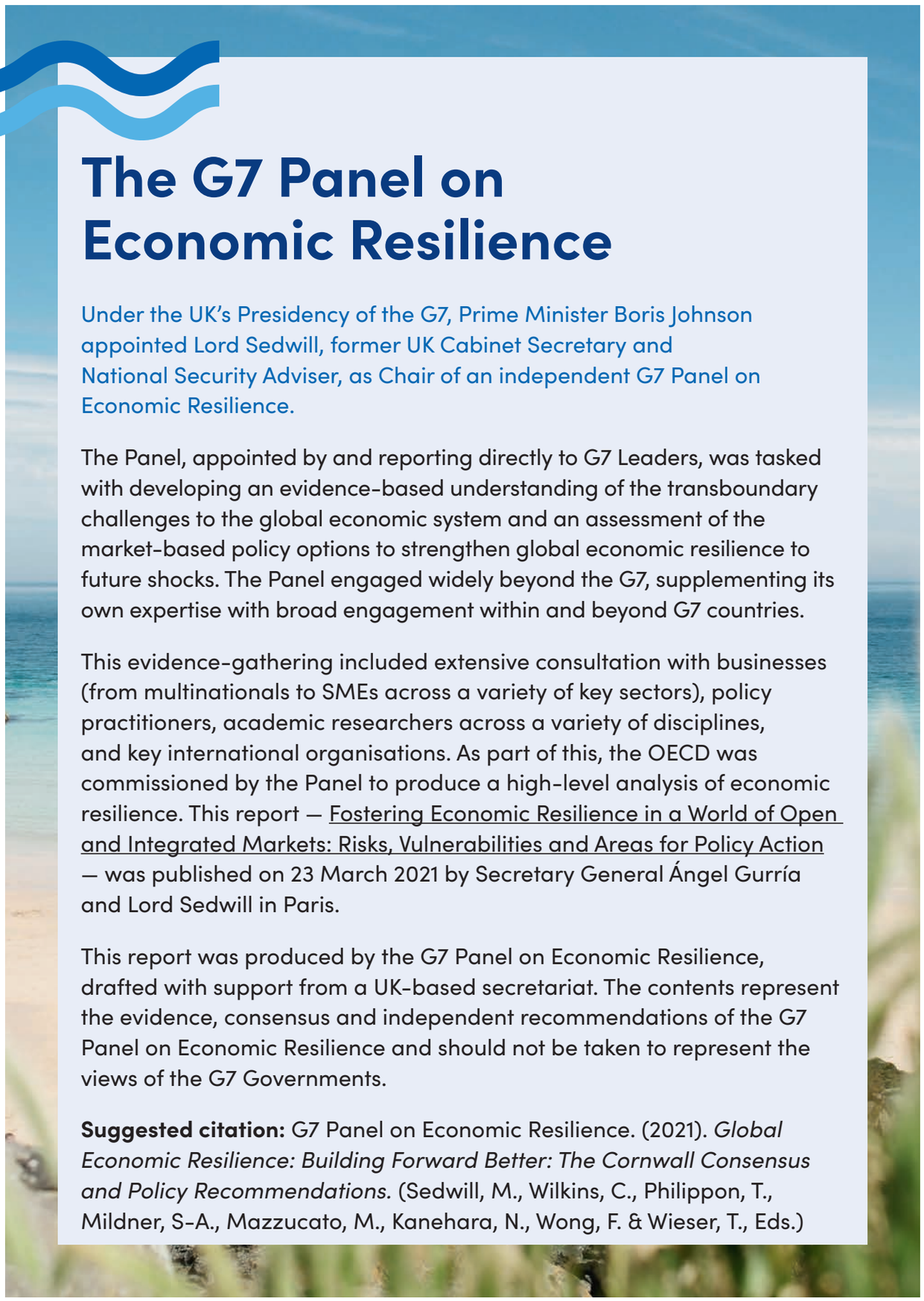
Global Economic Resilience

Building Forward Better

By the G7 Panel on Economic Resilience

October 2021



The G7 Panel on Economic Resilience

Under the UK's Presidency of the G7, Prime Minister Boris Johnson appointed Lord Sedwill, former UK Cabinet Secretary and National Security Adviser, as Chair of an independent G7 Panel on Economic Resilience.

The Panel, appointed by and reporting directly to G7 Leaders, was tasked with developing an evidence-based understanding of the transboundary challenges to the global economic system and an assessment of the market-based policy options to strengthen global economic resilience to future shocks. The Panel engaged widely beyond the G7, supplementing its own expertise with broad engagement within and beyond G7 countries.

This evidence-gathering included extensive consultation with businesses (from multinationals to SMEs across a variety of key sectors), policy practitioners, academic researchers across a variety of disciplines, and key international organisations. As part of this, the OECD was commissioned by the Panel to produce a high-level analysis of economic resilience. This report — Fostering Economic Resilience in a World of Open and Integrated Markets: Risks, Vulnerabilities and Areas for Policy Action — was published on 23 March 2021 by Secretary General Ángel Gurría and Lord Sedwill in Paris.

This report was produced by the G7 Panel on Economic Resilience, drafted with support from a UK-based secretariat. The contents represent the evidence, consensus and independent recommendations of the G7 Panel on Economic Resilience and should not be taken to represent the views of the G7 Governments.

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Foreword by Lord Sedwill

At the G7 Summit in Cornwall we discussed how, as we build back better from the pandemic, we build *forward* better to ensure that the global economic system is in the right shape to respond to future crises, meet the environmental challenges of the 21st Century, and deliver the aspirations of all of our citizens.

Globalisation has seen the greatest increase in prosperity and reduction in poverty in human history. The innovation which competitive market economies reward is driving the digital revolution, extraordinary progress in life sciences, and much of our response to climate change and the wider environmental, social and corporate governance (ESG) agenda. Just a year ago, we did not know whether there would be even a single successful vaccine against COVID-19. Within months, we had researched, developed, approved, produced and deployed a range of safe vaccines utilising different technologies, effective against both the original virus and new mutations.

But vaccine distribution remains uneven: most vaccines produced in developing countries, where vaccination rates are low, are still being exported to wealthy countries which are now rolling out booster programmes. And not everyone has benefited from rising prosperity: inequality within many countries has increased, and too many people have seen their incomes flatline and job security decline. While most global markets functioned well through the 2008-09 financial and 2020-21 COVID-19 crises, strains arose in some critical sectors.

Over the next few decades, the most significant risks are not other single-source crises like the pandemic, but some combination of adverse environmental, health, geo-political and socio-economic events. Future resilience is already under pressure because of ageing populations, the debt burden, the scale and scope of the green transition, cyber security threats, and adapting to the climate impacts already locked in. The other big factor is China. The global system has never before had to accommodate an economy of this size and structure, and the Chinese government is determined to achieve market dominance in the technologies of the 4th industrial revolution, having already done so in the refining and production of the minerals critical to the world's green transition.

These factors have outpaced global economic governance. Without decisive collective action, we will not meet the Sustainable Development Goals or the Paris Climate Accords' targets. How should we respond? Not by pulling up the drawbridge and turning back the clock. Resilience is delivered by diversification, co-dependence and public-private partnerships within well-governed, open and integrated global markets. The US, EU and the G7's big three independent advanced economies still account for half of global GDP, and even more with the inclusion of like-minded countries in the G20, so we and our partners can and should continue to shape the global system in accordance with our collective interests and democratic values.

The Panel's key recommendation is the Cornwall Consensus which reflects that insight and the circumstances of the mid-21st Century. We argue for a step-change in global economic governance. That means more effective collective mechanisms to identify and manage emerging risks, to cooperate better in global institutions, to respond collectively to economic risks or coercion, and to ensure that national policies to protect national economic security are not deployed against allies.

On the platform of the Cornwall Consensus, the Panel has made several Strategic Policy Recommendations to address the long-term issues central to economic and social resilience. There are three big themes – investment, standards and governance – which we bring together in proposals to tackle market failures in critical minerals, semiconductors and digital/data - the oil, steel and electricity of the 21st Century economy. Recognising the symbiotic relationship between public health, economic inclusion and collective resilience, we identify policies national and/or sovereign authorities would be well-advised to pursue, while focusing on concrete proposals for collective, or at least aligned, G7 action.

To be realised, these proposals will require wider support. So, in making those pledges and advancing this agenda, the G7 should recognise our responsibility to reflect the interests of the wider international community, particularly emerging and developing economies. The G7 should thus form the nucleus of a broader international commitment to the Cornwall Consensus so we can tackle the challenges and opportunities of the mid-21st Century together.

Mark Sedwill

Executive Summary

The independent G7 Economic Resilience Panel was appointed by and reports directly to G7 Leaders, with the mandate to develop evidence-based policy options that strengthen global economic resilience to future shocks. This report summarises the work of the Panel in 2021, and its final policy recommendations, based on engagement and research throughout the year.

The Panel, chaired by Lord Mark Sedwill, has produced an agenda for economic resilience, the Cornwall Consensus. The Panel has concluded that investment, standards and governance reform will be critical to overcome future shocks, such as pandemics, and the chronic underlying risks in our economic system. These reforms address the main categories of risk to economic resilience: environmental and health, and geo-political and socio-economic. The recommendations require collective and co-ordinated action by a united G7 to tackle systemic challenges across and within our interconnected markets.

The Panel makes specific recommendations around 7 strategic policy areas:

1. Global Health

The G7 should deliver vaccine equity, make pandemic contingency plans and have health as a permanent topic of the G7 cycles. Worldwide, with G7 leadership and financing, we should resource the WHO and COVAX, incentivise private investment for the public good and establish public-private programmes for research and development while governing vaccine intellectual property rights.

2. Climate Change & Environment

The G7 should, through developing standards, accelerate market circularity, fund green technology while guarding against greenwashing and champion a carbon price and trade mechanism while phasing out inefficient fossil fuel subsidies. The G7 could also create a mission-orientated research centre that pools investment for technical innovation leaps in hard-to-decarbonise industries like shipping.

3. Digital Governance

The G7 should take action on cyber threats and digital governance by strengthening technical standards and regulations and reforming regulatory policy, change antitrust and competition policy to reduce harmful monopolies in the digital ecosystem and create a fair tax regime, and improve international cooperation by creating a common framework for crypto technologies and assets.

4. The Global Trading System

The G7 should demonstrate leadership by working together as smaller country groupings to strengthen the World Trade Organisation (WTO) rules, processes and capabilities. This should enable the WTO system to guarantee, rather than impede, global climate ambitions. The G7 should also campaign to reform trade of pharmaceutical products for the common good and address market distortions created by unfair domestic subsidies, following the lead of the Japan-US-EU initiative on uncompetitive behaviour within State-Owned Enterprises.

5. Investment-Focused Recovery

The G7 should take concerted action to increase investment, including, as recommended by Lord Stern, raising annual investment to 2% of GDP for post-pandemic recovery and the green transition. We should also deliver the global minimum taxation on corporations and digital companies, and lead efforts to progress this within the OECD. Finally we should champion international environmental, social and governance principles within the private sector, to effectively enhance social performance.

6. Labour Standards and Participation

The G7 should commit to measure socio-economic progress more broadly than growth and GDP, including emphasis on labour and health outcomes, in particular for women and minority groups, as we build forward from the pandemic. We should also reaffirm International Labour Organization commitments and the rights for workers that enhance social inclusion.

7. Supply Chains & Critical Market Fragilities

The G7 should coordinate politically on essential goods in crises, participate in forecasting simulations focused on critical supply chains and develop supply chain contingency plans. We should also map stocks and flows of key goods such as critical minerals and semiconductors, and ensure, with allies, the financing of research and development into Rare Earth Elements. Finally, the G7 should campaign to improve environmental, social and governance standards of critical sectors, and use them to promote the circular economy.

The G7 forms a powerful nucleus within the global economic system. However, to achieve this agenda the G7 should work with wider groupings, such as the G20, and within important fora, such as the WTO. We should work together to replace the Washington Consensus — with its narrow focus on using economic tools to fix economic problems — with the Cornwall Consensus, which seeks systematically to address chronic and acute issues to advance our economic resilience.

Members of the G7 Panel on Economic Resilience

Canada

Carolyn Wilkins

External member of the Bank of England's Financial Policy Committee, Executive Board Member of Intact Financial Corporation and former Senior Deputy Governor of the Bank of Canada

France

Professor Thomas Philippon

Economist and Professor of Finance at New York University's Stern School of Business; Economic Adviser to Emmanuel Macron

Germany

Dr Stormy-Annika Mildner

Executive Director of the Aspen Institute in Berlin, Adjunct Lecturer Hertie School, and former Head of Department for External Economic Policy at the Federation of German Industries

Italy

Professor Mariana Mazzucato

Special Economic Adviser to the Italian Prime Minister (2020), and Economist and Professor at the UCL Institute for Innovation and Public Purpose at University College London

Japan

Professor Nobukatsu Kanehara

Doshisha University, Tokyo; former Assistant Chief Cabinet Secretary to Prime Minister Shinzo Abe

United Kingdom

Lord Mark Sedwill (Chair)

G7 Envoy on Economic Resilience, former Cabinet Secretary and National Security Adviser. Chair of the Atlantic Future Forum

United States of America

Dr Felicia Wong

President and CEO of the Roosevelt Institute

European Union

Thomas Wieser

Non-Resident Fellow, Bruegel and Former President of the Euro Working Group and the European Financial Committee

Guest Nation Observers to the G7 Panel on Economic Resilience

Australia

John A. Fraser

Businessman and former Secretary to the Australian Treasury (2015 to 2018)

India

Sanjeev Sanyal

Principal Economic Adviser, Ministry of Finance, Government of India

Republic of Korea

Professor Keun Lee

Vice-Chairman of the National Economic Advisory Council, and Professor of Economics at Seoul National University

Introduction

Our global economy faces unprecedented systemic challenges and risks that threaten our ability to secure sustainable and resilient prosperity for our citizens. We are all witness to acute systemic shocks, such as the onset of COVID-19, as well as chronic long-term distortionary trends, such as unsustainable monopolies. These weaknesses have material costs. In the first 18 months of the 2020s, the COVID-19 pandemic has taken the lives of millions of people across the globe,[1] inequality has increased through massive job and business losses, and climatic changes are already estimated to be causing over 150,000 deaths annually.[2]

Our current weaknesses are due to a combination of factors: rapidly changing external circumstances, changing international relationships, and economic inequality – with some experiencing extreme wealth, while working and poor people have seen no material improvements in their standards of living. Improving our collective circumstances will require changes in public problem-solving – namely new and different approaches to governance, standards, and investment.

Whilst the global community and groupings like the G7 deliver strong rhetoric on the crises of the day, we are yet to see them follow through on the commitments they have made. At the time of writing, only a proportion of the COVID-19 vaccines promised in the year following the 2021 Leaders' Summit have been delivered. We are failing on our implementation of the Sustainable Development Goals (SGDs). 2020 saw an estimated 71 million people pushed back into extreme poverty, the first rise in global poverty since 1998.[3] In particular, the COVID-19 pandemic has hit the poorest and most vulnerable the hardest, with women and children bearing the heaviest brunt of the pandemic's effects. Lost incomes, limited social protection and rising prices have meant that even those that previously considered themselves secure have found themselves at risk of poverty and hunger. As a result, global gains in reducing child labour are likely to be reversed for the first time in 20 years.[4]

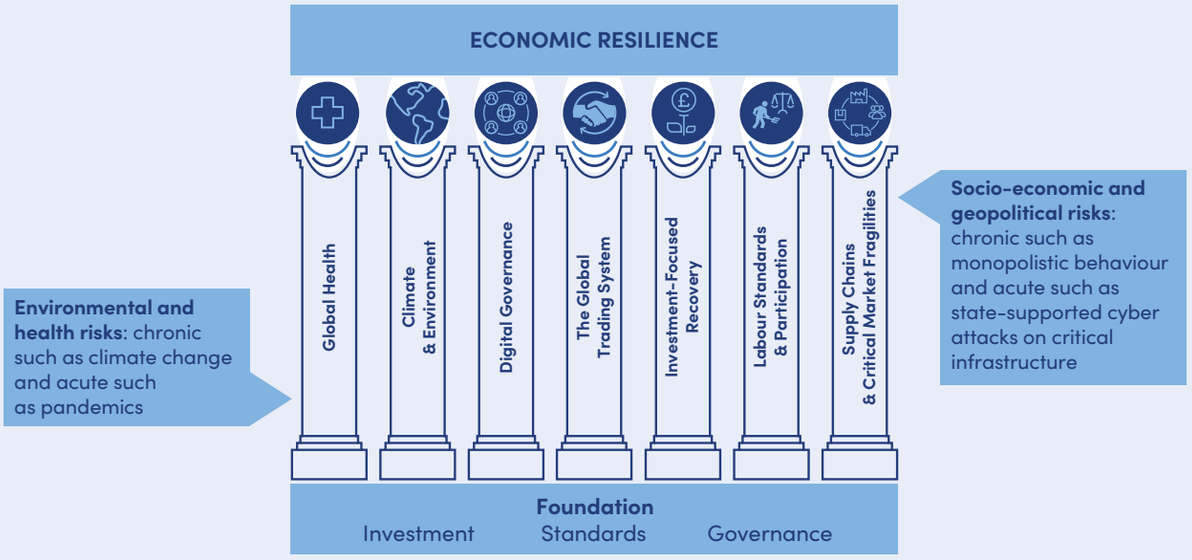
Given the future crises we will face are more likely to be a combination of adverse environmental, health, geo-political and socio-economic events, we should act now to mitigate against future, multifaceted events. To navigate this future the global community should pivot away from a view of globalisation as an end in itself, and towards a long-term vision for economic cooperation and democracy focused on working together to solve our most urgent crises. Only determined action can produce the resilience we require

to at least meet the challenges of the 'known knowns', let alone those we cannot foresee. Government action, at every level, should focus more on 'prepare' in order to lessen our reliance on 'repair'. This requires an urgent rethinking of how governments and administrations operate, how they are structured and set up to achieve our objectives for greater resilience over the long term, and how they foster productive international cooperation, especially in times of crisis.

Conventional wisdom has constrained economic policy and failed to produce resilient economies - a failure that has been exacerbated and exposed by the COVID-19 pandemic. A new consensus is needed that prioritises the role of governments in shaping economies and public-private partnerships that put the goal of resilient, sustainable and inclusive economies front and centre.

To achieve this ambition, there are several actions, set out in our Strategic Policy Recommendations, that G7 Leaders should take to foster collective economic resilience. While these recommendations were commissioned for the 2021 G7 Leaders' Summit in Cornwall, they have been designed so that wider governments, communities, civil society and the private sector globally can draw from them to create a fairer and more resilient society. Change will only happen when we all pull in the same direction. These Policy Recommendations are built on The Cornwall Consensus, which sets a new model and agenda for building global and systemic economic resilience designed by the Panel and presented to Leaders at the G7 Carbis Bay Summit in June 2021.

Building Economic Resilience



There are two distinct groups of risk — environmental and health, and socio-economic and geo-political. The OECD Report on Economic Resilience (2021) highlights how these may arise from within or outside governance systems but are often causally linked, such as climate change, health crises and financial security. The challenges of recovery from COVID-19 and the looming threat of climate change demonstrate that in some areas economic resilience requires greater coordination by, and across, governments.

The Cornwall Consensus: Build Forward Better

The COVID-19 pandemic has exposed the cracks in conventional economic theory and policy, exacerbating pre-existing inequalities and vulnerabilities. The market-focused assumptions of the Washington Consensus have constrained economic policy, undermining the potential of governments to work in partnership with the private sector to shape economies that support our collective democratic values and the common good. While living standards have improved as a result of greater economic integration, there is still a need to build forward better when creating a new normal. The G7 should lead on agreeing a new consensus that prioritises economic prosperity that is sustainable and inclusive, makes us resilient against environmental and health, and socio-economic and geo-political risks, and restores public trust in a rules-based, free, fair and open global economic system.

While economic resilience starts at home and primarily owes itself to sound, inclusive and sustainable domestic policies, stronger collective action is also needed to address shared vulnerabilities. This should be built on more purposeful investment and innovation, and on governments and businesses working in partnership to build economic resilience as a global public good, learning the lessons from the pandemic.

Therefore, as the international community strives to implement the SDGs, notably on global health, climate change and economic inclusion, the G7 should lead urgent action to strengthen and, where needed, reform international markets and institutions. The G7 should therefore pledge to:

- **Solidarity**: Accelerate reform of global economic governance to promote the common good; ensure that national economic policies not only respect each others' interests, but advance common goals; and respond more collectively to global health and environmental imperatives, economic crises, coercion and market distortions;
- **Better Risk Management**: Establish collective mechanisms to monitor, assess and invest in addressing emergent environmental and health, socio-economic and geo-political risks;

- **Sustainable and Purposeful Supply**: Collaborate with business to design open innovation-friendly market systems which are resilient to natural or deliberate disruption in critical sectors affecting national, economic or human security;
- **Better Governance**: Promote common global standards, rules and norms for the new economy which conform with our democratic values, promote global sustainability and public health, uphold labour standards, and encourage national and international regulations that strengthen our collective resilience; and
- **Inclusion**: Accelerate investment in the SDGs, promote digital inclusion, eliminate tax evasion, and facilitate full access for developing countries to global markets; alongside national policies to tackle inequality and support traditionally under-represented groups such as women and minorities.

The G7 should act on our responsibility to reflect the interests of the wider international community, particularly emerging and developing economies. G7 Leaders should invite other nations to associate themselves with these pledges and thus form the nucleus of a broader international commitment to the Cornwall Consensus as we collectively tackle the challenges and opportunities of the mid-21st Century.

Strategic Policy Recommendations for the Cornwall Consensus

In order to deliver the 5 ambitious principles set out in the Cornwall Consensus, we make these 7 Strategic Policy Recommendations as a pathway to collective global action at this critical moment:

1. Global Health

Today, the principal determinant of our economic recovery remains the success of global efforts to defeat COVID-19 – we are only as healthy as our neighbours. For this, the urgent scale-up of manufacturing of vaccines and other pharmaceuticals and their equitable access are absolute priorities. The task before us is urgent and nearly without precedent. The pandemic has seen remarkable leaps in innovation but, despite some enlightened behaviour (e.g. firms producing not-for-profit vaccines), these have not been scaled and shared widely or quickly enough. To date, much of our collective response to the global pandemic has fallen short of meeting the urgency of the moment – and indeed, our global commitments. We must learn from today's crisis and put in place actions to improve our collective capacity to respond to global health needs equitably, and be better prepared to respond to the next biological threat – whether naturally-occurring, accidental or deliberate – and which could be as diverse as another viral pandemic, antibiotic resistant-bacteria[5] or pesticide toxicity.[6]

More people across the globe have died so far from COVID-19 during 2021 than in the whole of 2020, despite having more knowledge and better tools available to control the disease, including multiple vaccines.[7] Weak health and care systems and the absence of national 'playbooks' have prevented informed and rational responses across many countries. Efficient and high-quality national administrative systems, well-functioning intellectual property rights governance and global coordination, each play an important role in tackling unexpected events. These factors have not been political priorities in many countries.

Moreover, as the COVID-19 pandemic endured, the multilateral solidarity and evidence-based scientific advice championed at the start of the pandemic were trumped firstly by protectionism and trade restrictions, and then by vaccine nationalism and misinformation. COVID-19 could entrench and exacerbate geo-political tensions in the long-term if the international healthcare effort does not become more cooperative.[8]

The ownership and production capacity of critical technologies, such as vaccines, are concentrated in a handful of private companies, despite much of the research and development having been financed and de-risked through public funding and advance purchase commitments.[9,10] Within this environment of scarce supplies, unequal purchasing powers between countries have largely determined who can access the limited vaccine supplies. Production capacity and distribution issues exacerbate inequality of supply. This has resulted in severe access inequities, which continue to undermine an effective global health response, including by increasing the risks of new and potentially more dangerous variants. The lack of political consensus about the transfer of technology and know-how to enable many more countries to produce and access vaccines and other critical medical supplies and equipment is further deepening the crisis.

Because our COVID-19 response will impact human and economic resilience in the long-term, it must come first. We should urgently see greater equity and solidarity in global health responses, underpinned by multilateralism and binding commitments. Actions need to follow words; when the G7 makes vaccine commitments, such as they did at the Carbis Bay summit in June 2021, they should rapidly deliver.[11] Donations will need to scale-up quickly if this commitment is to be met by the end of the year.

Despite declarations of support by the US in May 2021,[12] little progress has been made around the WTO TRIPS[13] waiver proposed by India and South Africa,[14] and on actual technology transfer to facilitate timely manufacturing scale-up in developing countries.[15] We should urgently continue discussions on the governance of intellectual property rights of vaccines and other life-saving technologies as part of global pandemic responses, taking into account the human cost of delays to COVID-19 vaccine access in 2021.

In order for the healthcare effort of today and of the future to be effective, the G7 and G20 must act collaboratively in the global interest. In anticipation of the next health crisis, the G7 and G20 should build symbiotic public-private partnerships that share both risks and rewards. Relationships should be committed to equity in critical areas like vaccine availability, distribution, access, and trade practices for vaccines, therapeutics and

medical goods, and to financing pandemic preparedness and response globally. We call upon the G7 to deliver a comprehensive and ambitious health package. This package should have adequate financing and aim to deliver equitable access to vaccines and other critical health technologies needed for pandemic response and resilience for COVID-19 and other health challenges such as antimicrobial resistance (AMR). Through enabling and supporting knowledge and technology sharing, diverse and co-dependent vaccines and medicine production capacities should be built in many more countries, while strengthening health systems and capabilities for sustainable preparedness and response. The G7 should work together to ensure multilateral action against pandemics, exploring scope for a Treaty based framework that can deliver coordinated responses in a decentralised manner.

Therefore the G7 should urgently:

- Commit to making global health a permanent topic for future G7 cycles, addressing challenges such as non-communicable diseases, antimicrobial resistance and mental health, as well as opportunities such as digital health provision;
- Deliver on the G7 commitments to vaccine equity. Despite wider commentary that vaccine pledges were insufficient, we as the G7 have fallen behind. As an urgent priority, we should mobilise financing and enable the scale-up of emergency production of vaccines and therapeutic medicines, governing intellectual property protections and licensing rules to foster innovation in ways that include global equitable access objectives and support our ability to safeguard global health;
- Develop a G7 contingency plan for collective responses to future pandemics, AMR and other biological threats, including transparency and equitable access requirements and standard clauses for public private partnerships. This should prevent unchecked control of critical technologies and access inequities, including those related to unequal purchasing powers between countries;
- Resource, structure and coordinate the WHO to enable a central and mission-orientated forum for global health governance. This should review and improve the governance and performance of COVAX[16] to support immunisation against COVID-19 as a global common good, and boosting access to the COVID-19 Tools (ACT) Accelerator with the same objective – where appropriate, expanding it to other emerging epidemic diseases;

- Mobilise adequate financing for health resilience and response. This should be structural finance ring-fenced for health, delivered via bilateral and multilateral development assistance, with incentives for private investment in health, and health innovation, for the common good; and
- Establish joint public-private programmes for the research, development, production of, and equitable global access to, critical health products including pharmaceuticals, medical supplies and equipment, vaccines, diagnostics and treatments. Equally, this should actively govern vaccine intellectual property rights, to avoid abuse of power and excess rents. Particular consideration should be given to sharing the rewards from innovations that received significant public investment and de-risking through advance purchase commitments.

2. Climate and Environment

The G7 is galvanised to take action around the greatest intergenerational threats to our global economic resilience: climate change, biodiversity collapse, AMR and overexploitation of natural resources. The Paris Agreement represents a good start, but progress towards its goals continues to lag far behind what is needed, and the latest science alerts us that even the Paris targets are insufficient to avoid catastrophic damage.

The good news is that breakthrough technological advances are on the horizon, on the back of decades of public investments both nationally and transnationally, including recent advances on nuclear fusion and carbon capture.[17] Such advances mean that the cost of renewable energy, such as solar and wind, have reduced drastically, and new processes are being developed, including green hydrogen, and improved energy density for batteries that do not rely on rare earth elements.

However, huge leaps in application of known solutions as well as innovation are required to reach our net-zero goals, and infrastructure investment to reduce emissions and mitigate climate impacts still lags far behind. The OECD estimates that globally to stay within a 2-degree rise, USD76.9 trillion investment per year in transport, water, sanitation, energy supply and use is needed every year until 2030.[18] We are far behind that target.

The reasons for this failure are many, and include underdeveloped capabilities in administration, finance, market signals, political conflict management, and international coordination. First, even though many

promising decarbonisation technologies have been identified, governments have not yet signalled support for their profitable deployment through commitment to procure much of what firms will produce at the early stages of market development. Inducing adoption of these innovations by the 36.3 million firms in OECD countries[19] that make up 80% of the world's trade and investment will require clear regulatory standards and substantial governmental assistance and coordination. It will also require regulation for market circularity and an increase in recycling rates incentivised through standard setting bodies such as the International Organization for Standardisation (ISO).

Second, there is the question of finance. For more mature technologies such as solar and wind, guaranteed public purchases and regulatory standards can help create the necessary economies of scale. For technologies still in development such as green hydrogen and nuclear fusion, funding for demonstration projects and research and development is needed. Innovative funding mechanisms, for example green bonds, could support the development of these new technologies, as long as these are developed alongside robust standards to eliminate greenwashing.

Third, in addition to strong policy and finance signals to stand up new industries, explicit and implicit pricing of carbon emissions can help transition out of carbon-intensive ones. Even relatively low carbon prices can be extremely useful because they target the low hanging fruits.[20] For instance, the Carbon Price Support of around 18GBP/tCO_2 introduced by the UK in 2013 (on top of the EU-ETS mechanism), has led to the proportion of electricity generated from coal falling from 41% in 2013 to 7% in 2018.[21] Explicit carbon pricing would also help advance the elimination of inefficient fossil fuel subsidies that are still prevalent around the world. For instance, IISD (2020) estimates that G20 governments provided USD584 billion per year between 2017 and 2019 for fossil fuels domestically and internationally.[22] For trade-exposed sectors, WTO compatible carbon border measures are needed to guard against carbon leakage and competition-induced backtracking (which may require updating of WTO rules, as discussed in Section 4).

Fourth, attention to the political management of these transitions is essential. In recent years, we have seen "*gilets jaunes*" protests in France, a repeal of Australia's carbon tax, referendums against the Swiss carbon tax, and lobbying by some industries to maintain free allowances of carbon permits.[23] All of this indicates a crucial need to secure a social license for the decarbonisation transition. This insight informs proposals like the Green New Deal in the US, the European Green Deal and the Terra Carta Sustainable

Markets Initiative, which combine greening of the economy with a broader social and environmental justice agenda to ensure good jobs and adequate social welfare.[24,25]

Fifth, the multifaceted nature of addressing the climate crisis is difficult enough to manage within one country's borders, but this global problem requires massive international investment and coordination. This has been achieved before, for example, in the 1950s, regional science diplomacy initiatives like CERN were developed.[26] Tackling global warming today will require partnership from all advanced economies, and all academic disciplines, and, like CERN, special dispensation should be given to intellectual property considerations in these partnerships. Together, through CERN, we found the fundamental structure of the particles around us, and together, we can make the fundamental innovations to address the climate change and biodiversity crises.

Finally, we recognise that without nature and biodiversity, we will not have economic resilience, as it underpins our food security, physical and mental health. Therefore we believe inclusive action should be taken on conserving biodiversity, and we would strongly support initiatives such as the G7 2030 Nature Compact and its objective to halt and reverse biodiversity loss by 2030.

We call upon the G7 to lead by example in agreeing to:

- Accelerate action in standards bodies like the International Organization for Standardization (ISO) to improve market circularity in sectors critical to the green transition where recycle and reuse rates are below 10%;
- Fund emerging green technologies such as green hydrogen and nuclear fusion. Complement this with a common framework for innovative green finance, including green and transition bonds, in particular for sectors critical to the net-zero challenge, that sets robust standards and protects these new financial instruments from the dangers of greenwashing;
- Champion pricing and trade mechanisms that disincentivise carbon-intensive production and reform WTO rules to phase out inefficient fossil fuel subsidies;

- Establish an interdisciplinary (physical and social sciences) entity - modelled after 'CERN (European Organization for Nuclear Research) for climate technology', to pool investment into specific innovation leaps, or 'missions', required to meet net-zero goals, including innovations to remove CO2, and zero carbon solutions for hard-to-decarbonise industries like shipping, aviation, steel and cement;
- Develop proposals to implement the G7 2030 Nature Compact, noting that natural resilience and biodiversity underpins our global health, wealth and ultimately economic resilience.

3. Digital Governance

Digitalisation has changed the economy of the 21st Century beyond all recognition. COVID-19 and Spanish flu differ in their biology, but a big factor in their economic impacts within the G7 has been the ability of nations and citizens to communicate, coordinate and in some instances continue working, despite lock-downs and movement restrictions. New technologies have opened up new sectors and new ways of communicating, saving, investing, making payments and addressing climate change.

However, this new economy and its solutions suffer from systemic problems that can erode economic resilience. For example, mining crypto-assets is associated with life threatening levels of pollution[27] and inequality has increased, with some citizens unable to access online devices for working and schooling or whose jobs did not allow for remote working, resulting in unemployment. Importantly, innovation and digitisation have long since overtaken effective governance at the national and global level, and while those advancements have seen significant improvements to some of our citizens' lives, the pace and divergence of approaches has created systemic resilience risks.

These risks include monopolistic behaviour, particularly in digital companies, and cyber security threats to people, firms and critical infrastructure. Market concentration is significant and wide-ranging in digital technology. USD172.2 billion is made in advertising revenue from the top ten companies, with 60% being taken by just two companies,[28] while 50% of books in the US are sold by one company.[29] Estimates of the cost of cybercrime in 2021 might reach USD6 trillion, and the scale of the problem is illustrated by a 300% increase in malicious cyber operations against Internet of Things devices in the first half of 2019.[30] Solutions can only work across borders, given cybercrime is

challenging the structure of international governance norms from the latter half of the 20th Century, where sovereign nation-states had jurisdiction over their population and their activities in well-defined geographic boundaries.

Extraterritorial flows of data and information are a constant governance challenge. The questions of who has jurisdiction, whose privacy laws are applicable and enforceable, who has the right to tax or apply competition law – all need a structure of cooperation that goes beyond anything an international organisation has on offer today. While the General Data Protection Regulation supports the privacy and data of EU citizens, digital governance needs to go further within the G7, to form a small coalition of the willing that is prepared to take the first steps of agreeing on a framework of digital governance for the 21st Century.

Addressing extraterritorial data flows will need to go hand in hand with a clearer understanding of the respective roles of government and the private sector in digital governance. As so many dimensions of our society have been digitised, private sector actors have increasingly moved towards or taken on governance responsibilities traditionally associated with the public sector. From governance of globally active private sector platforms to ownership of critical infrastructures and data: security, civil rights and liberty are values that traditionally have been the government's to ensure. The digital revolution is to a certain extent putting this into question, especially through the concentration of access to personal data within a few powerful companies.[31]

The security of cyberspace is an essential part of the resilience of supply chains in the age of digital transformation. The risks could be criminal or geo-political. The ability to move data across borders is essential for economic growth and innovation. COVID-19 has demonstrated the role of free-flowing data with trust in the global recovery. It is critical to secure this trusted free-flowing data across borders. With AI, big data could produce value not only for business but also for intelligence. International standards for cyber security should be elaborated so that private companies should become more sensitive to and prepared for the risks they face. The standards should include: encryption of data by private companies in particular when operating in countries where privacy is not fully respected; a zero-risk policy for foreign platforms and networks operating in the home country as well as for international deep-sea cables; and crypto technology and assets. Like-minded nations should cooperate to enhance the security of the government cloud systems while respecting privacy. They could also cooperate to minimise the risks from semiconductors used in the government systems or in critical infrastructure and sensitise and propose more secure choices for developing countries for introducing new telecommunication systems.

The G7 should fill the gaps in the collective governance of digital security, and lead global cooperation on three big digital issues central to both global economic resilience and the wellbeing of its own citizens – in data governance, competition policy, and in cyber security cooperation. This should include action in the following areas:

- Improve technology and data governance within the G7, by strengthening cooperation on norms, technical standards and regulations; and reforming regulatory policy to achieve agile and future focussed approaches to regulation. The G7 should finance stronger institutional options to respond to these challenges, for example a 'Data and Technology Board' akin to the Financial Stability Board, which could be instrumental in securing civil rights and liberties such as privacy, while ensuring the ethical governance of data;
- Change antitrust and competition policy to reduce harmful monopolies in our digital ecosystem and use tax policy to ensure digital firms pay their fair share of taxes within the G7 grouping; and
- Improve international cooperation on cyber security to address major threats to supply chains and critical national infrastructure, for example by championing a common framework to interoperate safely with crypto technologies and assets; and better coordinating responses to malicious cyber operations attacks on G7 members.

4. The Global Trading System

A healthy global trading system should encourage rules-based, open multilateral trade, contributing to the spread of economic growth, jobs, and wealth across the globe, while also enabling the transition to an environmentally sustainable economy. Growing participation in trade in recent decades under the World Trade Organization (WTO) has led to considerable economic growth and income gains, contributing to poverty reductions around the world.

However, the WTO rulebook has come under considerable strain. It has been 27 years since there were significant changes to its rules, and certain of its underlying assumptions have been proven wrong: that market-oriented governance would automatically spread across the world and prevent market distortions as well as lead to political democratisation, and that trade

liberalisation alone would deliver broadly shared prosperity to all. The world of 2021 looks very different to 1994: nearly half of the total historic global carbon emissions have occurred since then. In developed economies, the gains from liberalisation have accrued disproportionately to the top, while leaving many communities and regions behind. Inequality in several G7 countries has increased, with estimates for the top 0.00001%'s wealth share in the US tripling from 1995 to 2020.[32] Across developed nations, union density has fallen by nearly a third,[33] while manufacturing shares of employment have halved.[34] Many in our countries increasingly blame international trade for their hardships, creating an opening for distrust and a fractured public policy environment in which consensus is more difficult to achieve.[35]

Multiple failures of governance – at both the domestic and international level – account for this state of affairs. Domestically, states have done too little to invest in communities that were left behind. Internationally, consensus requirements and the incorporation of various economic models has come at the cost of eroding the spirit, if not letter, of the rulebook. Moreover, the WTO has been unable to prevent the increase of unfair subsidies, oligopolistic market structures, and export restrictions, and the uneven application of its rules, while struggling to keep up with the changing nature of trade itself, driven by global value chains, divergent technical standards, and increases in trade in services brought upon by the digital revolution. These and other factors have led to a breakdown in the WTO's appellate function and slowed negotiations across multiple fronts. Finally, many observers now contend that the rulebook itself lacks sufficient flexibility for countries to make the unprecedented changes to their economies that the climate crisis requires.[36] To meet their climate ambitions, governments will have to take a leading role in phasing out and standing up whole industries, an unprecedented remaking of economies that must take place on a global basis.

For this to be successful, changes to the way we produce, work, and trade should be undertaken. This may require significant changes to trade and investment rules so countries can take the necessary steps to transform their economies.

The path forward, at least in the short run, will be effectively catalysed by agreement amongst smaller groupings, whether bilateral or plurilateral. For example, a trilateral group — Japan, US, and EU — has suggested amendments aimed at tightening the Agreement on Subsidies and Countervailing Measures (ASCM). Similar endeavours can help chart a vision to facilitate modernising and greening public health and environmental rules and defences in order to enable the green transition, not to block it. Indeed, G7 countries and their allies and partners should articulate a new

vision in multilateral forums like the WTO, and in parallel, begin acting as a club to incentivise other nations to raise their level of ambition. As the trilateral initiative on the ASCM has shown, credible signals of joint G7-wide action make WTO modernisation more likely. Such initiatives could include, for example, WTO compatible common carbon border measures for steel, which would make decarbonising the industry more efficient while preventing displacement of emissions across borders. These club initiatives can embed common G7 democratic values in multilateral and plurilateral settings, restoring a sense of legitimacy and partnership to aid in the all-hands-on-deck process of economic transformation.

Between participation in plurilateral and club initiatives, the G7 should develop a joint vision for, and work with members to initiate, root-and-branch reform of the WTO to support open and rules-based trade in a way that contributes to the resolution of the multiple intertwined crises of our time – pandemics and global health challenges, income and wealth inequality, and the climate crisis – thereby also earning the trust of our citizens.

To deliver this trust, the G7 should urgently:

- Accelerate plurilateral initiatives within the WTO where a deepening of the rulebook has been blocked by multilateral consensus requirements;
- Make climate an integral part of the modernisation agenda by: advancing negotiations on plurilateral agreements to phase out tariffs on environmental goods that entail low to zero emissions; revising existing agreements and trade remedies laws to encourage decarbonization and supply chain resilience, including revising rules on incentives and subsidies;
- Present a road map for dispute settlement reform, in particular as to how the appellate function of the WTO can be built back better;
- Strengthen the connection between trade and health by reinvigorating negotiations to deepen and expand the WTO Agreement on Trade in Pharmaceutical Products while affirming the public health flexibilities under the WTO Agreement on Aspects of Trade-Related Intellectual Property Rights in support of WTO Members' right to protect public health and promote access to medicines for all; and

- Deepen efforts to address market distortions caused by unfair subsidies, the uneven application of WTO disciplines, and uncompetitive behaviour of state-owned-enterprises, including by the G7-wide negotiations to adopt the Japan-US-EU trilateral initiative to enhance the WTO Agreement on Subsidies and Countervailing Measures (ASCM).

5. Investment-Focused Recovery

To build forward better, investment needs — public and private — will be enormous. Lord Stern encouraged G7 leaders in May 2021 to raise annual investment by 2% of GDP above pre-pandemic levels and USD1 trillion per year from now until 2030.[37] Beyond bouncing back after the pandemic, the green transition will require financing volumes well beyond the capacities of any single government. This is why we should incentivise the development of national capital markets, and for economies such as the European Union, a highly integrated capital market union. Only then will we be able to ensure that savings and investments are put to best use, balanced with fiscal sustainability, and mobilise further growth and opportunities for the many.

Growth has been unsteady, uneven and prior to the Global Financial Crisis, unsustainable amongst advanced economies since the turn of the century.[38] Causality is difficult to pinpoint, but there is ample evidence that low productivity developments, a savings glut, and weak investment levels have contributed to this lack of steady and sustained growth.[39] The fine balance between fostering fiscal discipline and crowding out public investment has not been achieved for decades.[40] Moreover, in many countries private investment is also low, sometimes stifled by corporate governance processes that prioritise short-term profit over long-term growth. It is thus essential to kickstart both public and private investment towards production and capacity-building areas that can boost innovation and productivity, while also directing such investment towards market stabilisation and resilience during the greatest challenges of our time, whether climate change or global health events.

Given recent and foreseeable challenges, governments must address fiscal sustainability *in tandem with* ensuring that growth, productivity and social inclusion are improved. According to the IMF, fiscal debt and deficits rose further as a result of the pandemic, reaching 9.9% of GDP in advanced economies, 7.1% for emerging market economies and 5.2% for low-income developing countries.[41] Global government debt projections for end-2021

are up to 99% of GDP. Yet with historical focus on reduction of public debt, it is essential that a focus on yesterday's fiscal short-term does not hurt tomorrow's long-term growth capacity. Indeed, short-sighted focus on deficit reduction could even increase debt-to-GDP ratios if the result is the reduction of public investment in human capital, such as education.[42]

The answer lies in the restructure of public finances, shifting from current or immediate consumption to investment for economic infrastructure and capacity-building. Historically, this has been understood as physical infrastructure, like building motorways or bridges — and even these have been ignored for decades in countries like the USA.[43] Moving forward, the challenge at least for advanced economies is to switch expenditures to those categories that ensure high-quality future growth: supporting energy transition (including across public transport infrastructure); quality education and training for all; research and development that also facilitates or generates private investment. A global green deal will need to be reflected in public infrastructure investment, and ensure that private investment helps to transform industries towards a green transition — including key sectors like steel and cement. Social values will remain critical in all investments and the G7 should retain this element of the ESG agenda.

Transforming economies to be more investment driven, with the direction of investment towards more inclusion, sustainability and innovation, means aligning international regulatory and fiscal systems. By raising global minimum taxation of corporates to 15% as a standard, the G7 in June 2021 could increase tax revenue by as much as USD81 billion,[44] which could be invested directly in the green transition. However, incentives matter: it must also be more profitable for companies to be sustainable, for example by taxing those which consume materials rather than recycle them.

A mission-oriented approach to innovation and investment means focussing less on sectors, and more on problems (such as ones inspired by the UN SDGs) that require all sectors to work together. This might catalyse new partnerships focussed on societal goals, like adaptation to climate change, climate neutral and smart cities, and healthy oceans.[45] This might also mean making sure that subsidies, guarantees and bailouts are conditional on green transition performance. State-aid rules can create real transformation with challenge-oriented targets, rather than just handouts. These ideas can help to kick-start a global transformation of innovation, investment and a green transition.

This G7 should champion a more inclusive and investment-led recovery than what followed in 2008, financing it through, among other measures, minimum global standards on corporate and digital taxation.

This should include concerted action to:

- Endorse Lord Stern's recommendation of setting a collective G7 goal, including with the proceeds of multinational taxation, to raise annual investment by 2% of GDP above pre-pandemic levels, and improve the quality of investment to support a strong recovery and transformation of long-term growth focused on productivity, new opportunities and the environment. This amounts to an estimated additional investment of around USD1 trillion per year until 2030;
- Deliver on the agreement for a global minimum taxation on multinational corporates and digital companies, and redouble support for rapid further progress on these issues at the OECD and wider groupings;
- Champion a G7+ public-private stakeholder engagement group to develop an ESG framework, including measures, metrics, transparency and accountability. The goal would be to create common principles for the alignment of ESG internationally, including focussed efforts to advance the currently underdeveloped Social elements of the framework.

6. Labour Standards and Participation

Strong labour laws and standards are foundational to a just society and are a net positive for growth and development.[46] The last decade has seen significant positive developments in labour amongst the G7, for example female participation in the workforce in Japan rising to 50%,[47] and the UK has increased its attention on removing modern day slavery through its 2015 Modern Slavery Act.

However, the economic fallout of the COVID-19 pandemic clearly demonstrates how adverse developments often hit vulnerable groups the hardest. Research from the IMF, OECD and others shows clearly that inequality in our societies undermines economic progress and resilience.[48] It is in this light that we call on the G7 to show leadership by redoubling their efforts so that this recovery is more inclusive and just than what followed the Global Financial Crash in 2008. Public trust in an open global model rests on its ability to ensure all sections of society benefit, and are able to participate. The International Labour Organization (ILO) presents standards to protect all sectors of society, the G7 should implement them to secure economic resilience.

The facts are sobering with respect to vulnerable groups and women in G7 and other countries. For instance, women are more likely to work in face-to-face jobs such as hospitality,[49] which were disproportionately impacted by the pandemic.[50] This resulted in a 4.2% decrease in women's employment globally after the pandemic started, compared to 3% of men.[51] In addition to job vulnerability, women are more likely to take on housework responsibilities, childcare, and care for the elderly in times of crisis.[52] Minority and other vulnerable groups in many G7 countries have also been struck harder by the pandemic, and their lives continue to be marked by racism. In the US, some minority ethnic elders are more likely to be exposed through: face-to-face jobs, living in multi-generational households, taking crowded public transport to get to work and being pushed to work even when there are high-case rates in their community due to economic necessity.[53] Solutions to this systemic inequality must be proactive, not just reactive, to avoid labour market scarring that can seriously impact lifetime earnings, and other disproportionate impacts. In this regard, leaders should look past traditional measures of national income and growth to successfully spot emerging issues and gauge the success of their strategies.

In recent years in developed economies, there has been a notable erosion of labour union membership and corresponding declines in the political engagement of workers, lagging wage growth for many and less vibrant worker communities.[54] As we look to strengthen economic resilience to meet our climate and other critical objectives, the means must be consistent with our collective values even if they do not produce the lowest cost solution from a financial perspective. This applies to our efforts at home, as well as our engagements abroad. As consumption increases and supply chains become complex and opaque in the G7, the implications of this consumption at home expose us to significant concerns around labour practices of those working across supply chains abroad. For example, the DRC is the world's largest producer of cobalt[55] and 20% of production in that country is associated with artisanal mines that are themselves associated with child labour.[56] Cobalt is an essential component of the rechargeable lithium batteries[57] used in electric vehicles, which will be vital for the green transition. The impacts of the green transition on working people should be a focus of the G7's dedicated engagement groups such as the Labour 7 who should directly speak to leaders on these points.

G7 nations should take concerted action across the public and private sectors to promote fair and just labour standards in global supply chains; prioritise health, safety and dignity in the workplace; invest in workers; and increase and diversify workforce participation in both G7, advanced and developing countries. This should include action to:

- Commit to embed a broader range of economic indicators and measurements of economic success, with particular emphasis on labour market and health outcomes for women and minority groups (e.g. labour force participation and employment rates, wages, job quality), in order to aid a more inclusive recovery from COVID-19;
- Reaffirm national commitments to implementing International Labour Organization labour standards and ensuring their compliance;
- Recognise the vital role of labour organisation and collective rights for workers, which are critical to enhancing equity and resilience in our societies;
- Develop common principles and standards in line with the 'just transition to greener economies' that secure workers' rights and livelihoods, improve participation and promote social inclusion in the workforce; and
- Commit to increase the role of, and break down the silos between, the Labour 7 and other G7 engagement groups, including ensuring that they participate in Leaders' discussions.

7. Supply Chains and Critical Market Fragilities

The preceding strategic policy recommendations will all indirectly strengthen supply chain security via recovery, investment and economic capacity-building. However, where systemic market failures persist, we must provide governance to assure the stability of supply chains themselves. The new green economy has shifted market dynamics, as demand for energy transition minerals and semiconductors for green technology replaces demand for fossil fuels. These changing dynamics create opportunities and employment, and enable us to address chronic problems to avoid past mistakes. We should build resilience against the known threats, concentrated markets and geo-political manipulations, which have resulted in occasional price spikes, such as the OPEC crisis of the 1970s. We must also prepare for the unknown shocks by putting G7 and wider governance mechanisms in place today that will underpin future resilience.

Sharp shocks, such as COVID-19 and the Global Financial Crisis of 2008, tested the resilience of our supply chains and exposed chronic problems such as market monopolies and dependencies. In today's global and interconnected economy, no single region can be entirely self-sufficient; for example, analysis of COVID-19 medical products has shown that while Southeast Asia enjoys a comparative advantage in PPE (Personal Protective Equipment) production, the region depends on more developed economies' specialisation in medical equipment, and vice versa.[58] Chronic risks, such as those that can result from production being concentrated, are notable as even the existence of a dependency for a critical product concentrated in one location, could be leveraged without the reduction of supply being realised. For example, as this report goes to press in October 2021 gas prices are soaring, raising concerns over Russia's control of European gas supply.[59]

In some instances, we can anticipate surging demand for goods which are concentrated in one or more geographies. For example, for vehicle batteries and energy storage, the EU would need up to 18 times more lithium and 5 times more cobalt in 2030, and almost 60 times more lithium and 15 times more cobalt in 2050, compared to the current supply.[60] The Democratic Republic of Congo (DRC) mined some 70% of cobalt in 2019.[61] If not addressed, this high concentration of supply and increase in demand may lead to severe supply risks.

Geographic specialisation allows for innovation and cost reduction, but in some instances has led to known market concentrations and associated fragilities. For example, critical minerals[62] and semiconductors, which are essential to the global net-zero and technological revolution we need by 2050, present complex supply chains that share the characteristics of market concentration in a region of heightened geo-political tension. China alone accounts for 80% of the US's Rare Earth Elements (REE) imports,[63] and 98% of the EU's, without which wind energy would not be possible. On the semiconductor supply chain, realisation of China's publicly-stated intent to 'reunify' with Taiwan by 2049 could also be a destabilising influence, given that Taiwan's largest chipmaker (TSMC) has 55% of the global market share.[64] The geographic concentration of semiconductor supply also makes it vulnerable to environmental risks. For example, the severe drought that hit Taiwan in 2021 caused great concern for their chip manufacturing capabilities, which are extremely water intensive.[65] Producing semiconductors domestically to secure supply is impractical given the large start up costs (USD3-4 billion)[66] and the long lead times to build new factories. Greater international cooperation will therefore be critical to address semiconductor supply chain risk.

Learning from past successes may prove useful in the post-pandemic era. For example, in response to the food crisis of 2007/2008, the Agricultural Market Information System (AMIS) was created to collaboratively share information between countries representing 80-90% of trade volumes of targeted crops to increase transparency and support policy reactions.[67] A similar mechanism for critical supply chains could increase both our national and collective resilience in the face of future shocks, which typically incite secondary, responsive stresses in the form of regulatory failures, disinformation and profiteering, and export restrictions. Strengthening international regulatory co-operation, such as agreements on simplified procedures and adoption of international standards to facilitate the flow of essential goods, by the G7, should therefore be prioritised.

Over time, R&D-led advances in resilience may be achieved by increasing efforts to recycle and reuse waste and products rich in critical minerals and metals, particularly where this can be more environmentally sensitive and less energy- or carbon-intensive than traditional methods of mining. Appropriate regulation and voluntary standards encourage the ease of recovery of critical minerals from the initial design of the goods themselves through to their disposal.[68]

To increase the resilience of our supply chains, and to address market fragilities, the G7 should collaborate and coordinate on information-sharing, forecasting and diversifying vulnerable goods. The shared ambition of the G7 to promote better environmental, social and governance standards will reduce shocks as well as make us better able to withstand them. Therefore, the G7 should:

- Coordinate early, political-level coordination during future crises by creating a rapid response mechanism for essential goods within the G7 grouping;
- Facilitate forecasting exercises and crisis simulations on supply chain disruption and, where appropriate, share the outputs of nationally run public-private supply chain 'stress-tests' across critical sectors and suggest national supply chain risk mitigations for its members to consider;
- Create an information-sharing platform on critical minerals and semiconductors that maps stocks and flows, improves collective knowledge of volumes, supports traceability, and provides a policy coordination function, as AMIS has done for agricultural products since the 2007/2008 food crisis. Platform membership could begin with the G7 and be expanded over time;
- Finance Research and Development collaboration on Rare Earth Elements (REEs) and other critical minerals production and processing among the G7 and its allies; and
- Develop high standards to promote the circular economy and Environmental Social Governance in critical sectors like REEs, collectively caucusing at the ISO and other international standards bodies.

Walking the Talk – Building Forward from Cornwall

The Washington Consensus came to stand for an effort to enhance the resilience of economies through free-market reforms, primarily in Latin America where IMF loans were made contingent on their adopting certain economic practices. Some of the very recommendations the Washington Consensus advocated, however, have since proven to exacerbate inequities and fall short of the task of building resilient economies – including in the face of the COVID-19 pandemic, climate crisis, digital governance challenges and other major risks. The Cornwall Consensus puts forward a very different vision.

The Cornwall Consensus sees a critical role for governments in shaping economies that are more resilient, sustainable and equal, in partnership with private sector actors and in collaboration with one another. In the preceding Strategic Policy Recommendations, we emphasised the need to act across 7 pillars of economic resilience – our health, environment, digital governance, trade, investment, labour standards and supply chains. The integrated and global nature of the challenges facing us requires a commitment to collective action, bold policies on the part of our governments to shape a different kind of economy, and new forms of public-private partnership that are designed with the goals of resilience, sustainability and equity front and centre.

Climate change, biodiversity loss and the next health crisis are all poised to destabilise domestic and global economies. Preparing for the next crisis requires a fundamentally different approach to economic policy and international collaboration.

The 2020s are a critical decade for building economic resilience. With the first in-person meetings of G7 and G20 leaders since the pandemic began, we have the opportunity to learn multiple lessons from each others' responses to the associated shocks. It is also an important year to address the climate change threat to economic resilience, with two G7 countries co-hosting the Presidency of COP-26. The WTO, crucial to the Strategic Policy Recommendations of the preceding section, is also producing a report this year themed around economic resilience. Leaders stand at a crossroads to build forward from Cornwall, here we present them with our vision, evidence base and strategic recommendations that would help them to do so.

The Carbis Bay G7 Summit Communique, released in June 2021, established the G7 Leaders' agenda for global action to build back better after the pandemic. Much of this published agenda is consistent with the Cornwall Consensus and Strategic Policy Recommendations made by the G7 Economic Resilience Panel. However, Leaders have the opportunity to lead, and must deliver on their commitments in the communique, notably on health by the end of the year, and climate at COP-26.

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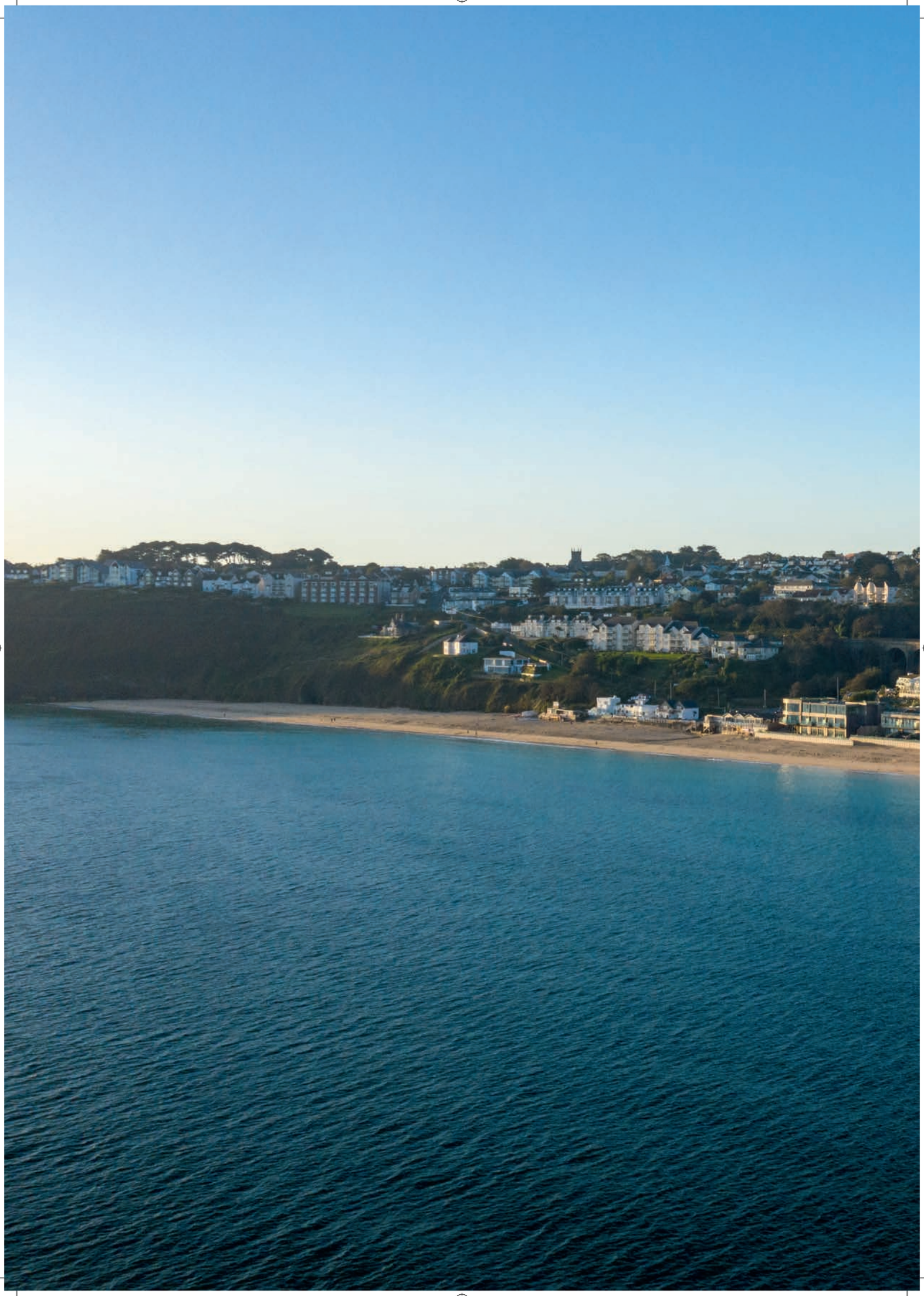

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