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ANALYSIS & NEW INSIGHTS

The Playbook for Paradigm Shift:

A Green Recovery in the COVID-19 Context

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This unique moment in history is at once deeply humbling, horrifying, and hopeful. It is a public health and economic crisis of epic proportions. Hundreds of thousands have lost their lives, millions more have lost their jobs. It is a global moment, yet everyone is having their own experience. Some countries got hit with the economic contagion before the virus. It is horrifying to think through the range of possible outcomes as COVID-19 infections spread and fears of a second wave grow; and we're beginning to wrap our heads around the cascading effects on the real economy, the financial system, the food system, and social cohesion. No one knows what we are dealing with. We have never experienced this scale of global crisis—at least not in our lifetimes.

Last October, working with the Stanley Center for Peace and Security, I convened a group of climate activists and financial analysts to learn the lessons from the financial crisis in 2008–2009 and develop a different playbook[1] to be deployed when the time came to put us on a different trajectory, one aligned with the Paris Agreement with lower levels of inequality built in. We wanted to be ready to use the next crisis moment for a paradigm shift.

Now that moment is upon us. Inertia is no longer a barrier to ambition; business as usual still is. A green and fair recovery is an obvious but not inevitable response. It falls to us—yes, including you, the reader—to use whatever agency we must to make it manifest. The 1.5°C trajectory gets locked in—or does not—in the next 12–24 months once the shock is absorbed and stimulus dollars get spent. Later there may be an opportunity for deeper structural reforms, and possibly to reinvent our global architecture as we grapple with the inequity, fragility, and dysfunction the virus has laid bare.

To this end, we are revisiting the Playbook and laying out our wares. In this paper, I highlight some of the key principles and ideas we will build on in the coming weeks. The paper is written from a global perspective; it does not dwell on any one country's experience. There is minimal use of statistics since they are superseded almost as soon as they are released. It is structured in four sections: the first focuses on the immediate crisis relief and stabilization measures, acknowledging that the focus rightly has been on saving lives and livelihoods, not creating a green and fair system; the second considers key factors in the recovery phase; the third examines ways to finance the recovery; and the fourth deals with the scope of structural reforms and international cooperation for a systemic shift. The pandemic hit in a political context still poisoned by the last financial crisis and its response. It is critical we do better this time. "Build back better"[2] is more than a mantra—it is a political necessity for international cooperation on global problems. Climate ambition rests on a better recovery.

We invite debate. What happens from here depends on a contest of ideas and a battle of narratives. Ideas we thought improbable a few months ago are being implemented today. Ideas we deem impossible now may take on more significance as we pick up the pieces and the postpandemic reckoning, recovery, and reordering begins.

PART 1: Crisis Relief and Stabilization Measures

First, We Have to Get through the Night

Every crisis is different and demands its own response. This crisis differs from the financial crisis of 2008–2009 in that it is a health crisis for which the policy response was an economy-wide shutdown. The priority has been to protect lives by strengthening health-care systems and preserving jobs by pumping liquidity into the system. We have seen jaw-dropping amounts of monetary and fiscal measures—an estimated $15 trillion worldwide so far; for perspective, the global economy last year was worth $87 trillion. Between Congress and the Federal Reserve central bank, the United States alone has committed more than $6 trillion to stem the calamity—almost a quarter of gross domestic product (GDP). The US fiscal response—at almost $3 trillion—is proportionately only the world's 10th largest.[3]

Scale is one defining feature of the economic harm, its suddenness is another. Notwithstanding the weak response to early warning signals from Wuhan, China, of the new coronavirus, the abruptness and synchronicity of the economic shutdown was surreal. In the United States, jobs that were built up over 60 weeks were wiped out in six weeks. The same with capital flows to emerging markets: the reversal seen in the four weeks to the end of March took a whole year following the 2008–09 crisis.

The Playbook So Far—Has It Been Any Greener or Fairer?

It is hard to know what conventional wisdom is when dealing with a global pandemic the likes of which was last experienced in 1918. The economic policy response has been very aggressive, reflecting lessons learned in 2008–09. Intended to stop the unraveling, it seems to be working so far. The markets are inexplicably buoyant despite the drip-drip of economic data that suggests the recovery is unlikely to be V-shaped.

The response must be fairer this time. Bailouts should target workers and not the wealthy. Main Street should get help, and Wall Street have its wrists slapped when it tries to hustle in. In many countries, executive bonuses, dividend payments, and share buyback schemes have been frowned upon or forbidden for those seeking government aid. The immediate support measures—whether direct payments to individuals, payroll support for companies, or nationalization of parts of the economy—have fundamentally shifted the balance between public and private sector and underscored the value of a competent government and strong institutions.

A distinguishing feature of this crisis is the extent to which it has exposed the vulnerability in the system. Coronavirus has laid bare crippling levels of inequality and insecurity. Health-care workers are the heroes of this crisis, battling the virus with subpar health and welfare systems after decades of neglect. How can we accept years of austerity or inadequate public infrastructure off the back of the essential workers we applaud each week? Growing unemployment numbers and bankruptcies will mean the lines at food banks everywhere will grow even longer. This crisis revealed the fragility of...everything. Most people get that there is a link between COVID-19 and the climate crisis. There may be demand, on an emotional level, for a different type of economic response. Who will be the chief architects?

Central Banks as Climate Change Agents

The role of central banks in helping create a paradigm shift during a time of crisis was a focus of the Playbook, since they are the first responders in a financial crisis. Indeed, it is during times of crisis that we are reminded that these institutions are owned by governments and can use the fiscal side of their balance sheet in support of government objectives. Quantitative easing (QE) is when the central bank intervenes as an agent of government to buy up long-term debt, as they did in 2008–09. We have seen an aggressive response from central banks, including the setting up of new facilities for loans and asset purchases. The blanket

coverage, whether by design or default, has meant that high-carbon assets have been hoovered up in the process. Civil society groups are spotlighting how lobbying by fossil fuel companies in the United States and Europe has led to an expansion of lending programs allowing oil and gas companies to qualify for relief. The scrutiny will only get harsher.[4]

Central bankers are powerful actors and have been highlighting the importance of climate-related financial risks for a few years. Bank watchers were disappointed when the Bank of England announced it was postponing its climate stress tests due to the novel coronavirus but encouraged when the Basel Committee on Banking Supervision weeks later confirmed that a majority of its members are taking climate risks seriously and taking actions to reduce the implications on the banking system and financial stability.[5] Soon thereafter, the European Central Bank, Bank of Canada, and Banco de Mexico announced plans to conduct stress tests and enhance oversight to prepare their countries' financial sectors for climate risks.

COVID-19 has not stopped this work. If anything, it has underscored the imperative of mitigating the risks of events with severe global impacts. The underlying conditions have not changed, so we would expect this work to gain momentum. In the Playbook, we called on central bankers to more consciously use monetary and fiscal tools to accelerate the transition to a more resilient economy, for example, through green QE or imposing penalizing factors for excessive fossil exposure. Climate has not been a determinant factor for central banks so far, but it could be. It is not hard to imagine central banks playing a more assertive and creative role in the future. For example, they could alter capital requirements to change incentives or retroactively tag the assets they have purchased during this crisis to unwind their position in a way that accelerates the low-carbon transition.

Finance Ministers in the Hot Seat

The Coalition of Finance Ministers for Climate Action was the other new platform the Playbook applauded.[6] The 56 finance ministers who are members of the coalition signed up to the Helsinki Principles, which include a commitment to take climate change into account when making macroeconomic policy. Now they are in the hot seat, charged with drawing up crisis-response-and-recovery plans. It is they who will ultimately determine how to allocate the $350 billion of firepower the multilateral banks have mobilized so far. The World Bank alone has committed $160 billion of direct lending in the next 15 months.[7] The multilateral development banks (MDBs) have publicly committed to align their operations with the Paris goals and are working on their methodologies, yet it is the ministers of finance who request funds and specify for what purpose. Health system strengthening and social support will be the priority, of course. Down the line, investment for infrastructure will be sought, and there will be heightened scrutiny of the investment projects to ensure the Helsinki Principles are being put into practice.

Greening Crisis Response Measures

The virus is still spreading, and fears of a second wave are growing; measures implemented so far are being channeled to preserve lives and jobs, and to absorb the economic shock. Analysis from Oxford University estimates only 8 percent of total funding so far can have either low-carbon or high-carbon impact.[8] An alternative study found that about a quarter of overall global stimulus funding has a relevant impact on the environment, one way or the other. So far, a minuscule amount contains clear proenvironmental conditions. It is too early to judge whether the Playbook so far will lead us to a shift in paradigm—our original goal.

China was the first hit by the pandemic and is the first to gear up for the recovery. About RMB 6.35 trillion ($895 billion) of fiscal stimulus measures were presented at the opening of China's National People's Congress, prioritizing employment and poverty alleviation.[9] More moderate than expected, they are a mixed bag in terms of climate. "New infrastructure" including 5G networks, big data, and electric vehicles were emphasized. Surprisingly, the government decided not to specify a GDP growth target for 2020, citing the unpredictable conditions. Potentially, this removes the pressure to pursue a carbon-intensive infrastructure-based approach to recovery, as China did in the aftermath of 2008–2009, leading to increased greenhouse gas (GHG) emissions. Clean coal was referenced in the premier's keynote speech, climate was not.[10] Nor was there a tightening of carbon-intensity targets, which is not entirely surprising since 2020 is the final year of the 13th Five Year Plan. The 14th Five Year Plan, currently under consultation, is the vehicle through which a more ambitious course could be laid out.

Europe, on the other hand, has doubled down on the European Green Deal as the manual for its recovery and has unveiled "the world's greenest recovery package."[11] The package includes a proposal for the European Union's (EU) next trillion-euro budget for the years 2021–2027 and an additional front-loaded "recovery instrument" of about $550 billion specifically designed to cushion the economic blow and build solidarity across the bloc. The grants and or loans—still to be determined—will mean hard-hit Italy and Spain can start to rebuild without necessarily adding to their deficit. Specific details include €60 billion to €80 billion for electric vehicle sales and infrastructure, €91 billion for building retrofits, and €50 billion for renewables and green hydrogen. The numbers are impressive, and the direction of travel is decisive. Some member states hesitated at first to concretely link stimulus packages with climate targets and set green conditions to support for auto and airline sectors. The argument seems to have been won, and Europe's rescue plans are most aligned with its commitment to deliver net zero GHG emissions by 2050. This is a bright spot, but the devil will be in the details and what comes out of the Brussels machine.

The US response has been fractious and fragmented. The federal system has been strained and solidarity sorely tested within and between states. There is no clear sense of direction. The Federal Reserve has taken the lead and had to publicly prompt the federal

government to step up and do its part. This is symptomatic of climate action in the United States, where the business community and financial markets are out in front, absent political leadership. If the richest country in the world cannot make sure its people are safe and fed, that raises deep questions and takes on heightened urgency in view of worsening climate impacts.

PART 2: Recovering Better Together

Build Back Better—But How?

The *cri de coeur* may be to "build back better," but vested interests will not go gently into the good night. If we want to use this crisis as a chance to reset global rules and norms for a fair, just, and 1.5°C-aligned global economy, we are going to have to get more creative and concrete, and fight for it. This section focuses on the green recovery; the next proposes ways to finance it. This is nonexhaustive, of course; we highlight some of the emerging contours of a different path from this moment in history. The thread throughout is the need to halve global emissions over the next decade. The context may have changed; the science has not.

Spurring a Green Recovery to Get People Back to Work and Spending Money Faster

The first step in recovery will be to invest in infrastructure. The question is, which kind? The imperative is to focus the stimulus on the "right" things and avoid locking in high-carbon assets. For a recovery that rests on consumer spending, getting money into consumer hands quickly is paramount. Why should governments seize this opportunity to green stimulus measures?

First, it is faster and delivers better results for the economy.[12] A team from Oxford University cataloged more than 700 stimulus policies and found that green projects, compared with traditional fiscal stimuli, create more jobs, deliver higher short-term returns per dollar spent, and lead to increased long-term cost savings. Wind and solar infrastructure are particularly labor intensive, creating twice as many jobs as fossil fuel investments. Labor-intensive green policies also include retrofitting buildings, research and development, skills training, and natural capital investment. Crucially, many green technologies are scalable, use standardized equipment, and can be dispersed spreading the jobs and benefits widely. A priority for action is to strengthen the evidence base and provide decision makers granular data on the jobs and growth impacts of a greener recovery.

Second, when economies remain fragile, increasing productivity is critical. The best medicine for a negative productivity shock is a positive productivity shock. Think Marshall Plan after World War II. Over the last 40 years, growth has been driven by globalization, trade, and technology. A green industrial revolution could be the engine for the next few decades. Making entire sectors—health, transport, energy, agriculture—simultaneously update their practices by decarbonizing, decentralizing, and digitalizing is the obvious way to deliver double-digit productivity gains. A modernized and integrated skills agenda could help match displaced and unemployed workers to decent jobs of the future. A concerted and comprehensive productivity agenda could add trillions to the global economy, help clear the overhang from this crisis, and more than offset the cost of greening.

Third, as a practical matter, decision makers will need implementable ways to quickly determine whether a particular economic activity or infrastructure project counts as green recovery. There are standards and principles in development to reorient financial flows. The EU's Sustainable Finance taxonomy is most advanced and expected to be ready for market by 2021.[13] Now is the time to accelerate efforts by the EU, the People's Republic of China, Canada, and others to harmonize their classification systems and establish specific lists, or taxonomies, on what counts as green or resilient. The World Bank published a sustainability checklist to screen its $160 billion and is a worthy stopgap.[14] The trade-off between green and high-carbon is obvious when it is comes to solar or wind projects compared to coal or gas (although many still think of gas as a bridging fuel). It gets harder to ascertain the trade-offs and life-cycle environmental footprint of trains versus trucks, however, or how to steer flows in agriculture or heavy industry when there is no pure green alternative yet in place. This is a complex undertaking with wide-ranging political consequences that make it a priority for coordinated action.

Innovate to Include Nature-Based Projects as Infrastructure

The pandemic and its aftermath have the potential to trigger enormous effects on biodiversity and conservation outcomes and Paris goals, for good or for ill. Millions of jobs depend on nature—think forestry, fisheries, agriculture, tourism, or pharmaceuticals—and recovery plans that protect and restore biodiversity will create more jobs and protect these livelihoods. Governments, international financial institutions, and investors should use this opportunity to classify green nature-based projects as infrastructure. Investments in reforestation projects, coastal habitat and peatland restoration, and land reclamation can create low-skill jobs quickly. On average, they create an estimated 40 full time jobs per $1 million invested, which is over ten times the job-creation rate of investments in fossil fuels.[15] In addition, they enhance resilience and support vulnerable rural communities. Civic conservation programs to simultaneously repair natural ecosystems and the social fabric would be a prudent investment.

The COVID-19 crisis has already triggered a rethinking of business models, supply chains, and consumption habits. Nonstate actors can use their agency in their own decisions and demand that recovery efforts classify and prioritize nature as infrastructure. Companies should redouble their commitment to sustainable and regenerative farming practices and efforts to eliminate tropical deforestation from supply chains. As a minimum, this should be a prerequisite to receive support packages. Damage to ecosystems undermines climate action and is also implicated in the genesis of zoonotic diseases such as COVID-19.[16] The EU has published and

explicitly linked its biodiversity plan, the farm-to-fork strategy, with its climate goals and green recovery. This is a pivotal moment for more-ambitious and joined-up international cooperation to link post-2020 global biodiversity frameworks with climate ambition and economic recovery.

Decommission and Dismantle High-Carbon Assets

If our goal is to halve emissions over the next decade, we need to move beyond a do-no-harm standard and demand bolder action to unwind high carbon assets as part of recovery packages. There are emergent models for the early retirement of coal plants—a concept being piloted in parts of the United States, Greece, and South Africa.[17] Never did we imagine the Overton Window would shift to include the options to transition the oil and gas sector. Bolstered by walls of debt and decades of government support, many oil and gas companies hovered just on the right side of junk-bond status, even before COVID-19 hit demand and Saudi Arabia and Russia flooded the market with oil. The response to this crisis should reshape these industries rather than bail them out and return to business as usual. Any help given to the oil and gas sector in this immediate phase is literally life support; even Wall Street has called time on the US shale industry.[18] What are the options to take advantage of this window of opportunity when companies are being paid to keep the oil in the ground? What is the offer to the oil and gas workers heavily concentrated in particular communities? This is an area ripe for new and innovative thinking.

PART 3: Financing a Green Recovery

The cost of economic relief to support individuals and business during this pandemic is staggering. And likely trillions more dollars will be required in the coming months to recover and rebuild. There are many facets to how this will be financed, but perhaps the most salient point is this: In 2008–2009, individuals bore the loss through foreclosures, repossessions, and austerity; people will refuse to accept those terms this time. While they are under shelter-at-home orders and without income, contracts will have to be restructured or suspended, and policymakers will have to find new ways to clear away debts more palatable to regular taxpayers. Herein lies an opportunity.

Resurrect Fairer and Greener Revenue-Raising Strategies

Leaving aside Modern Monetary Theory, let us examine fiscal options that involve cutting spending, raising revenue, or both. Revenue-raising options that in the past seemed unthinkable or proved impossible may attract renewed attention, including:

- **Digital Sales Tax (DST):** Pre-COVID-19, over 135 countries were already collaborating under the Organization for Economic Cooperation and Development (OECD)/G-20 Inclusive Framework on Base Erosion and Profit Sharing to reform the international tax system.[19] The taxation of the digital economy is unfinished business. A new attempt to find agreement was launched May 2019 after many jurisdictions imposed their own DST, each differing slightly. France and the EU have announced that if the OECD does not reach an international agreement on the taxation of the digital economy this year, they will impose their own.[20]

- **Financial Transaction Tax (FTT):** The idea of levying a tax on financial transactions is not a new one. More than one candidate in the Democrats' US presidential primary elections offered fully fledged FTT proposals, ranging from 0.02/0.03 rising to 0.1 percent gradually. Michael Bloomberg's proposal claimed two-thirds of the burden would fall on the top 10 percent of Americans; Bernie Sanders's proposal estimated an FTT would raise $60 billion to $220 billion annually depending on the impact of trading volumes.[21]

- **Carbon Pricing Strategies:** This would be an elegant solution to raise revenue and accelerate implementation of climate goals. Nearly 60 carbon tax and trading systems are in operation at the national, subnational, and regional levels in various countries, though the average price of emissions is only $2 a ton.[22] Only 12 percent of global emissions are currently covered by pricing systems, typically with prices below $10 per ton. Back-of-the-envelope International Monetary Fund (IMF) calculations show that prices need to be $50 to $100 per ton or more (in current prices) by 2030 for major emitters to meet their Paris commitments.[23] Carbon pricing mechanisms generated $45 billion in revenues in 2018, up from $32 billion in 2017 and $22 billion in 2016.[24] There are also the benefits from reduced air pollution mortality: a $35 a ton carbon tax in 2030 would save an estimated 300,000 premature deaths a year in China and an estimated 170,000 in India.[25]

Create Fiscal Space for Everyone to Build Back Better

Advanced economies that borrow in their own currency can finance ballooning deficits and debt. Most countries do not have that option: preexisting constrained balance sheets were hit hard by falling commodity prices, a drop in tourism, dried-up remittances, and capital flight. One hundred two countries—an unprecedented number—have so far requested emergency financing from the IMF, and 60 packages have been expedited and approved so far. Twenty-seven of the most vulnerable countries have received grants to cover their IMF debt obligations for the next six months. MDBs have mobilized $350 billion and are working with countries to get the money out the door.[26] This is only the start. If we want to use this moment for a paradigm shift, the MDBs and IMF are critical venues, since decisions made in these institutions will heavily influence the direction of travel. Development and debt are interlinked issues as they interact in dynamic and complex ways.

Debt sustainability was an issue before novel coronavirus. Post-COVID-19, there will be no choice but to find new ways of

untangling the vast amount of unpaid debts. Talk of green conditionalities when countries are focusing on saving lives and staying afloat is tactless and indifferent to the significant scar tissue that remains from previous rounds of conditionalities. The specter of the Washington Consensus looms large. The lack of transparency, especially pertaining to China's role as creditor, further complicates the issue.

The reality is there will be no choice but to restructure debt when the dust settles, as in advanced economies. Extraordinary times require extraordinary measures: this is a crisis like no other, and it is right that public health took precedence over economic considerations. The smart play now is to think about how to have this conversation in a way that works for development and climate. Who has the agency to help thread the needle across institutions to link development finance, debt relief, and crowd in private investment flows and incorporate the conversation on Nationally Determined Contributions (NDCs) in the process? To build back better, we must work across these venues in a seamless and strategic way.

The first responses from the MDBs were as decisive as the IMF, and widely welcomed. The MDBs have many assets—big balance sheets, AAA credit ratings, and expertise in cash transfers—that are currently being deployed to reach the most vulnerable. The demands will only increase. Experts have started to assess what headroom the MDBs have in the event of a worst-case scenario. The MDBs have legal authority—as distinct from prudential lending standards—to loan more than $1 trillion, but this includes callable capital, which its shareholders would have to endorse.[27] Yet the fiscal positions of the governments behind the development banks and the IMF are also weakened by the crisis.

In an unusual move, nine MDBs issued a joint statement arguing against debt relief regarding COVID-19 and in favor of new lending instead. They expressed concern that debt relief prematurely would have the perverse consequence of increasing the costs of borrowing for the MDBs at a time when they are trying to maximize their firepower. It also could be counterproductive as at some point, they argue, rating agencies will reassess the creditworthiness of lenders and shareholders, as the economic impact from the pandemic works its way through the system. Debt relief would reduce the overall quality of their portfolios and weaken their ability to offer direct support to countries.[28]

An urgent priority is to strengthen the global financial safety net, notwithstanding the fact that COVID-19 has weakened the entire system. In 2017, the G-20 finance ministers and central bankers established the Eminent Persons Group on Global Financial Governance (EPG) to recommend reforms to promote economic stability and sustainable growth in a new global era.[29] These included creating a contingent form of capital for the MDBs more liquid than callable capital (similar to the European Stability Mechanism), liquidity support lines for prequalified countries, and a role for the IMF in central bank swap lines to provide sufficient liquidity if multiple countries face solvency threats. The most direct way to provide additional capital to the IMF is to use the additional Special Drawing Rights (SDR), the special currency through which the member states support the IMF. For the time being, that option is off the table as the move was opposed by the United States—the fund's dominant shareholder—and India. The IMF last approved a $250 billion new allocation of SDRs in 2009, boosting liquidity for cash-strapped countries during the last financial crisis.[30]

At the end of the day, the bank's shareholders must indicate they will do whatever it takes if the situation warrants it. Geopolitics has prevented the G-20 from sending that signal so far. While President Donald Trump remains in office, it is probably most expedient to organize around a lack of US global leadership and put energy into creating new platforms and vehicles for countries to cooperate and build solidarity. Rightly, the immediate priority is maximizing liquidity support to maintain solvency and support public health. That does not preclude creative thinking now about how to operationalize a fair and green recovery and change incentives accordingly.

This must be an operational, not abstract, discussion. For example, who has the standing to make green recovery count toward the climate finance agenda? Do economies have blueprints to build back better specifying low-carbon, shovel-ready projects? If not, how soon can they? Is there a derisking tool to channel investment into novel, nature-based infrastructure projects? Can we adapt the EU Projects of Common Interest model and set up donor conferences around large-scale priority projects that will deliver significant productivity gains, jobs, and emissions reductions? Is there a way to provide new guarantees to crowd in private investment, currently desperate for yield? Is there a way to instrumentalize NDCs in this pivotal moment? We can start now thinking through how to thread the needle between development, debt, and climate to create a win-win situation.

Eliminate and Reallocate Annual Subsidies to the Fossil Fuel Industry

It was in the wake of the last crisis, at the G-20 Pittsburgh Summit in 2009, that the international community agreed to phase out fossil fuel subsidies. The aftermath of this crisis might be the time for a systemic shift to eliminate fossil fuel subsidies once and for all. These are not insignificant: $5.2 trillion was spent globally on fossil fuel subsidies in 2017, the equivalent of 6.5 percent of global GDP.[31] Even after signing the Paris Agreement in 2015, governments collectively increased taxpayer support for the fossil fuel industry by $500 billion. This is incongruous. It is also inefficient and represents pure rent capture. Increasingly, renewables are cheaper and could replace fossils in most places with far-reaching positive impacts. With the price of oil so low, even dipping into negative territory, now is the time to address consumption subsidies. The previous oil price plunge, at the end of 2014, enabled over 30 governments to undertake reform of their fossil fuel consumption subsidies.[32] These subsidies come at the expense of the environment and at significant opportunity cost. In 2015, the United States spent $649 billion subsidizing the fossil fuel

industry, 10 times the federal spending on education. Now is the time to end this unwavering government support and reallocate this largesse to other pressing matters. Implementing their pledge from over a decade ago should be one of the top priorities of the G-20 nations' post-COVID-19; the G-7 should lead by example.

PART 4: Structural Reforms and International Cooperation for a Paradigm Shift

The purpose of the financial system is to deliver fair and balanced growth. We have needed a course correction for some time now. Some say this is the moment to revisit the entire post-1945 world order and create new global institutions fit for purpose in the face of future trends and frequent shocks. The COVID-19 shock is not the same as the World War II shock. A pandemic exacerbates preexisting trends: the good trends—cheap renewable energy, demand for climate action, financial scrutiny of stranded risk; and the bad trends—low global growth, increasing debt levels, political division, and populism. There is a certain amount of confirmation bias. We see what we want to see: a chance for government renaissance and Bretton Woods 2.0 or government overreach and conspiracy theories. Coronavirus will not change world views, at least not overnight.

That said, several truisms can guide us. The first is this has been a shared global experience in which public health and people's lives have taken priority over the economy. We can quibble about reopening but not lose sight of this precedent. Second, we have a visceral sense of the scale of the decarbonization challenge and the incontrovertible need for a new social contract to deal with climate policy success, or failure, and other shocks. Third, climate ambition is contingent on the experience of international collaboration and cooperation during the COVID-19 crisis. Geopolitics was in a dismal state going into this crisis in part because we failed to make structural changes last time. The deleveraging after the 2008–2009 crisis exacerbated the general sense that "the system"—as is—is not working for ordinary people. To halve global emissions over the next decade, green recovery and climate ambition must be hardwired into the system this time. This necessitates a revised social contract, different metrics of success, and concrete ways for countries to cooperate. It will be a multiyear process, but 2030 is only two business cycles and three US presidential elections away; we cannot wait too long to get to these agenda items.

Rewrite the Social Contract between Government and People

Annual global CO2 emissions are expected to fall by around 8 percent in 2020, predominantly due to the downturn in economic activity.[33] To reach net zero by 2050 and limit the temperature increase to well below 2 degrees, emissions must decline by 7 percent per annum.[34] This gives a visceral sense of the scale of disruption and dislocation the science requires for a safe climate. It is no longer abstract. The holes in the social safety net are plain for all to see, and that takes on heightened urgency in view of digitalization, decentralization, and decarbonization trends and worsening climate impacts.

Exactly how to rebuild the state apparatus and redesign social policy in a way that gives people and communities dignity demands urgent attention. We need to completely reimagine the institutions and architecture to match people with jobs, create purpose, provide security and stable incomes, and build resilience to future economic shocks. This is in large part a national agenda; concerted international action can help quickly establish new norms, harvest the best ideas, and agree on a big and bold agenda that integrates the just-transition and future-of-work frameworks. The social contract between the governed and government is the underpinning, and central to the functioning, of our social, economic, and financial systems. With the world facing the worst economy since the Great Depression, a badly frayed social safety net, and worsening climate impacts, this is the time for us to repair it.

Redefine What "Recovery" Means to Include Strengthening Resilience

Coronavirus has revealed the need for incentives and institutions to drive political attention, public investment, and international cooperation to more pressing needs, like building resilience and preparedness, so that another sudden crisis does not bring down the global economy in mere weeks. Consider some definitions of "recovery." Wall Street defines it as how long it takes to get back to where the GDP trend rate was before the crisis. A more modest measure is how long it takes to get back to the same level of income.[35] A more radical way to define "recovery" might be to replace GDP with an altogether new metric of success. Economic growth measured by gross domestic product has always been a simple indicator in a complex world. Tellingly, China has refrained from including a GDP target in its first recovery package. Perhaps it could be the start of an international initiative to develop a new measure, a composite, that prioritizes social cohesion, faster rates of decarbonization, and economy-wide resilience to future shocks.

A defining legacy of this crisis is that we cannot ever afford to find ourselves so unprepared and lacking in the basics. Resilience is a good overarching concept that integrates a climate-adaptation agenda into health and social system strengthening; it also talks to us personally, but in public policy terms, the concept remains vague. The resilience agenda needs a definition for different groups to coalesce around and demand action. It would include strengthening the social safety net, prioritizing food security, and actions to close the digital divide, as well as climate adaptation. Governance reforms and new institutions are also needed to keep track of multiple risks and compel decision makers to prepare for them. If it has done nothing else, COVID-19 has proved how an ounce of prevention is worth more than a pound of cure. Reform of credit-rating agencies must be a priority to radically change incentives and redirect investments.

Find Ways to Cooperate and Integrate Climate Until Geopolitics Is in Place for a Paradigm Shift

If the economic recovery is an opportunity to create sustainable, inclusive, and resilient economies, how, where, and when are countries to cooperate to deliver this shift in paradigm? What is the right approach? On what issues can we make progress until the geopolitics improve?

The priority must remain public health, stopping the spread of the virus, preparing treatments and vaccination. Delivering $8 trillion for domestic stimulus but failing to muster $8 billion for vaccine preparation and distribution is the definition of shortsightedness and a failure of international cooperation. Global leaders need to be reminded that their national interests depend on working together to minimize the devastation. If we follow a beggar-thy-neighbor approach, the crisis will last longer, more lives will be lost, and the economic fallout will be harsher. In a hyperconnected world, we are only as strong as the weakest link. The international community must also prepare for a humanitarian campaign in case spillover effects from the multiple crises create a worst-case scenario. The threat to food supplies, whether from locusts in Africa, restrictions on exports, or extreme weather events—all happening now—risks millions of lives and further instability and feedback loops.

Cooperation is required to restructure debts and mobilize development finance as outlined above. Near the top of the agenda might also be trade and investment issues, since market access is an incentive for cooperation and will be a driver of economic recovery, not to mention climate ambition. That said, trade is a tricky issue deserving of its own playbook. The EU has shown more willingness to incorporate climate into trade talks, but that is seen as a hostile act in some parts. The expected trend toward deglobalization and onshoring post-COVID-19 might change the dynamics in future trade conversations. The aim is regulatory equivalence, and this could be tackled through more robust carbon pricing, and sector by sector.

While the G-20 was created to be the venue for international agenda setting, and the IMF has the mandate for system-wide financial stability, the fact is that without US leadership in these and other spaces, progress is limited. We must find other processes to influence and organize around the Trump administration. Fortunately, there are many discrete areas around which to build plurilateral or multilateral platforms such as a finance taxonomy, nature-based solutions, or innovation clubs developing emerging technologies such as green steel, sustainable biofuels for aviation, and hydrogen. A case in point is the government of India's International Solar Alliance and plans to launch a World Solar Bank and regional grid initiative to connect solar energy supply across borders—"One Sun One World One Grid."[36] These and other diplomatic alliances could hasten positive change, repair international relations, lay the groundwork to cut GHG emissions, and fix our institutions for cooperation.

The most expeditious way to use this moment for a shift in paradigm would have been for the United States, EU, and China to get on the same page and throw their collective geopolitical weight behind the build back better reform agenda. The United States has chosen not to provide leadership on global problems for the past few years. Its bungled domestic response to COVID-19 has left it somewhat diminished to lead the endeavor on the world stage. China's record is at best patchy, donating funds to the WHO one moment, then removing rights from Hong Kong the next. Anti-China sentiment is growing in Europe as well as the United States. Yet the threat of a second Trump term puts pressure on the EU and China to find ways to cooperate on COVID-19 and climate. The EU-China summit scheduled for late 2020 in Leipzig, Germany, is a potential moment for a reset, though that is a high-risk, high-reward play. Whether trade or climate top the summit agenda, there is a deal to be done around prudential rules and sustainable finance to reorient private investment and market access and open supply chains for equivalent pricing of carbon, green infrastructure (including nature-based infrastructure), and a development and debt package in solidarity with vulnerable countries.

A piecemeal approach is not at odds with a grand vision of a new global architecture but rather a prerequisite. First, we need to find concrete ways to address the pandemic and humanitarian crisis it might lead to. Second, we need 12–18 months of incremental cooperation and trust building around concrete areas of the recovery agenda. Trust is not built in isolation; it is a by-product of joint action and is harder to build virtually, so it may take more time and effort. Third, we need to wait for the outcome of the US election to see if the country reemerges as a constructive global player ready to help problem solve again. It will take time for the United States to build up its bench and hone its playbook to tackle the big global issues. It remains to be seen if it is possible to drive international cooperation and progress on major issues without the United States.

The fact is there is no choice but to cooperate. Even at the height of the Cold War, the United States and the Soviet Union managed to agree on a test ban treaty, so it is possible to get something done. Cooperation on climate change can be a pathway to recovery. It provides an existential reason, if we needed another, to find common cause and repair relations. Building the low-carbon future is an opportunity-driven agenda that polls show a majority of people want. It will boost productivity, provide jobs, cut energy costs, and keep supply chains open. A good outcome, despite geopolitical headwinds, is that groups of countries find ways to help each other through this crisis and create the conditions for cooperation and a grander vision in the next stage. That said, the unimaginable keeps happening of late. The G-20 was created in the aftermath of the last crisis; the G-8 expelled Russia to become the G-7. The number is not fixed. It is always possible a new group of like-minded countries will form an alliance around an ambitious agenda fitting of this unique moment and shared global challenges. To build back better, social and climate objectives will need to be rapidly integrated into national processes controlled by finance

ministries, central banks, and economic regulators; into international diplomatic processes such as Financing for Development[37] and the Finance In Common global summit for public development banks;[38] and into bilateral and regional diplomacy and sector-specific real-economy platforms.

Conclusion

We are at a fork in the road. Annual global CO2 emissions are expected to fall by around 8 percent in 2020. Unless a concerted, concrete, international effort is forthcoming, the recovery will follow previous global economic crises and be accompanied by a large rebound in emissions. The Playbook is a device to simplify interventions needed that take us down the path that leads to a more sustainable and inclusive global economy. The truth is we do not know what will emerge. Is this the dramatic shock we needed for a shift in paradigm and to build back better? Or will we bounce back to business as usual and continue our march of folly? The changes that will be unleashed or accelerated by this global pandemic are multifaceted: some, but not all, will, be drivers toward a fairer, greener economic system. The imperative is to maintain a sense of agency and urgency amid the uncertainty and not waste this narrow window of opportunity to put global emissions into long-run structural decline.

Central bankers and finance ministers have been the main actors in the story so far, and while applauded for their early interventions to stop the economic collapse, support for the fossil fuel industry undermines their recent work on climate risks. As they resuscitate the economy, the expectation will be that they use their operations to build resilience into the system, not more risk, and that they use this crisis to inoculate against the bigger one they have acknowledged is looming. Through spending in the near term, investments in the medium term, and revenue raising in the longer term, as the chief architects of the financial and economic system, central bankers and finance ministers will determine whether a new paradigm emerges from the pandemic or not. Stimulus projects such as renewable energy, electric mobility, building retrofit, and land reclamation are labor intensive and have a strong multiplier effect and the highest cobenefits. A green industrial revolution will provide a positive productivity shock sorely needed after this global pandemic. The more we can evidence the benefits of greening the recovery the better.

The response to the last financial crisis was a return to business as usual and a political backlash that has poisoned the well and led to a rise of nationalist populism. The world has changed in other ways since 2008–2009. For one, we have the Paris Agreement: 192 countries pledged they would do their part to reduce global greenhouse gas emissions. Only one country has withdrawn. Second, investors are beginning to see and act on the structural long-term investment risk from climate change. Larry Fink, head of the world's largest asset manager, sounded the alarm, saying climate risk was fundamentally reshaping financial decisions. Fink anticipated a major shift in the way money was allocated sooner than most imagined and pledged to make it a central component of BlackRock's strategy.[39] This dynamic will only accelerate as the next generation takes the helm of business and government. Third, renewable energy is the lowest cost option in 60 percent of the world. The head of the International Energy Agency is advising governments to put clean energy at the heart of their stimulus plans. To not do so is to tragically compound this crisis.[40] Fourth, the public wants urgent action on climate change; COVID-19 will only strengthen the case for preemptive action. Fifth, the millions of protestors for climate action that had mobilized in 2019 might be stuck at home for the moment, but they will be back with a vengeance. They will demand to see the returns on public investment in terms of emission reductions and economic justice. Policymakers who squander this opportunity will pay the price.

Early indications of which path we are on are encouraging from Europe and ambivalent so far from China. There is a deal to be done between the EU and China to bolster multilateralism, signal a green recovery, and show solidarity with vulnerable and developing nations, but that is not a given. The US administration has continued down its unilateral retrograde path, blocking more-ambitious action at international institutions such as the G-20 and the IMF. There is a discrete action agenda that can appeal to enlightened national interests that groups of like-minded countries, and companies, can unite around for a better recovery. It starts with collaboration to expedite COVID-19 treatments and vaccinations and runs through cooperative arrangements on energy and environment, trade and investment, and debt and development that can lead to a faster recovery from COVID-19 and more-ambitious climate commitments in 2021. The US election will be a pivotal moment. It will determine if, how, when, and where we can tackle head-on the structural impediments to a paradigm shift and create new incentives and institutions for a fairer, more-inclusive economic system, on a trajectory aligned with the Paris Agreement.

Endnotes

1 George Triggs, *Global Financial Crisis and Climate Change: A Playbook for Action*, Stanley Center for Peace and Security, March 2020, https://stanleycenter.org/publications/financial-crisis-and-climate-change.

2 "Climate Change and COVID-19: UN Urges Nations to 'Recover Better,'" UN Department of Global Communications, April 22, 2020, https://www.un.org/en/un-coronavirus-communications-team/un-urges-countries-%E2%80%98build-back-better%E2%80%99.

3 Tommy Wilkes and Ritvik Carvalho, "$15 Trillion and Counting: Global Stimulus So Far," Reuters, May 11, 2020, https://uk.reuters.com/article/uk-health-coronavirus-cenbank-graphic/15-trillion-and-counting-global-stimulus-so-far-idUKKBN22N2EP.

4 Sal Christ, "Occidental's Lobbying Pays Off as It Stands to Benefit from Coronavirus Bailout," Global Witness, May 13, 2020, https://www.globalwitness.org/en/campaigns/oil-gas-and-mining/occidental-lobbying-pays-off-stands-to-benefit-from-coronavirus-bailout; Sarah Bloom Raskin, "Why Is the Fed Spending So Much Money on a Dying Industry?," *New York Times*, May 28, 2020, https://www.nytimes.com/2020/05/28/opinion/fed-fossil-fuels.html.

5 "Basel Committee Publishes Stocktake Report on Climate-Related Financial Risk Initiatives," Bank for International Settlements, April 30, 2020, https://www.bis.org/press/p200430.htm.

6 "The Coalition of Finance Ministers for Climate Action," Climate Action Peer Exchange, https://www.cape4financeministry.org/coalition_of_finance_ministers.

7 "The World Bank Group Moves Quickly to Help Countries Respond to COVID-19," World Bank, April 2, 2020, https://www.worldbank.org/en/news/feature/2020/04/02/the-world-bank-group-moves-quickly-to-help-countries-respond-to-covid-19.

8 Cameron Hepburn, Brian O'Callaghan, Nicholas Stern, Joseph Stiglitz, and Dimitri Zenghelis, "Will COVID-19 Fiscal Recovery Packages Accelerate or Retard Progress on Climate Change?," *Oxford Review of Economic Policy*, May 8, 2020, https://doi.org/10.1093/oxrep/graa015.

9 Kevin Yao, "Exclusive: China to Ramp Up Spending to Revive Economy, Could Cut Growth Target—Sources," Reuters, March 19, 2020, https://www.reuters.com/article/us-china-economy-stimulus-exclusive/exclusive-china-to-ramp-up-spending-to-revive-economy-could-cut-growth-target-sources-idUSKBN2161NW.

10 Keqiang, Li, "Full Text: Premier Li's Speech at the Third Session of the 13th NPC," CGTN, May 22, 2020, https://news.cgtn.com/news/2020-05-22/Full-text-Premier-Li-s-speech-at-the-third-session-of-the-13th-NPC-QHaP1FpB8k/index.html.

11 Ewa Krukowska and Jess Shankleman, "Covid-19 Recovery: Green Stimulus Set for Unveiling in EU," Bloomberg, May 20, 2020, https://www.bloomberg.com/news/articles/2020-05-20/eu-to-unveil-world-s-greenest-virus-recovery-package.

12 Hepburn et al., "Will COVID-19 Fiscal Recovery Packages Accelerate?"

13 Alexandra Farmer and Sarah Thompson, "The Ripple Effect of EU Taxonomy for Sustainable Investments in U.S. Financial Sector," Harvard Law School Forum on Corporate Governance, June 10, 2020, https://corpgov.law.harvard.edu/2020/06/10/the-ripple-effect-of-eu-taxonomy-for-sustainable-investments-in-u-s-financial-sector.

14 Stephen Hammer and Stéphane Hallegate, "Planning for the Economic Recovery from COVID-19: A Sustainability Checklist for Policymakers," World Bank Blogs, April 14, 2020, https://blogs.worldbank.org/climatechange/planning-economic-recovery-covid-19-coronavirus-sustainability-checklist-policymakers.

15 P. E. T. Edwards, A. E. Sutton-Grier, and G. E. Coyle, "Investing in Nature: Restoring Coastal Habitat Blue Infrastructure and Green Job Creation," *Marine Policy* 38 (2013): 65–71, https://doi.org/10.1016/j.marpol.2012.05.020.

16 B. A. Wilcox and B. Ellis, "Forests and Emerging Infectious Diseases of Humans," *Unasylva* 57 (2006): 11-18.

17 Paul Bodnar, Tamara Grbusic, Sam Mardell, and Caroline Ott, "How to Retire Early: Making Accelerated Coal Phaseout Feasible and Just," Rocky Mountain Institute, June 30, 2020, https://rmi.org/how-to-retire-early-making-accelerated-coal-phaseout-feasible-and-just.

18 Derek Brower, "Wall Street Calls Time on the Shale Revolution," *Financial Times*, March 29, 2020, https://www.ft.com/content/39125b8a-524f-11ea-a1ef-da1721a0541e.

19 "What Is BEPS?," OECD, https://www.oecd.org/tax/beps/about.

20 Leigh Thomas and Jan Strupczewski, "Europe Threatens Digital Taxes without Global Deal, after U.S. Quits Talks," Reuters, June 18, 2020, https://www.reuters.com/article/us-usa-trade-digital-france/europe-threatens-digital-taxes-without-global-deal-after-u-s-quits-talks-idUSKBN23P0T2.

21 Thomas Franck, "Mike Bloomberg's Proposed Wall Street Transaction Tax Explained," CNBC, February 18, 2020, https://

www.cnbc.com/2020/02/18/mike-bloombergs-transaction-tax-would-levy-0point1percent-from-stocks-trades.html; Greg Iacurci, "Democrat Plans to Tax the Wealthy Could Hit an Unintended Target: Average Americans," CNBC, February 19, 2020, https://www.cnbc.com/2020/02/19/financial-transaction-tax-could-hit-average-americans.html.

22 Ian Parry, "Putting a Price on Pollution: Carbon-Pricing Strategies Could Hold the Key to Meeting the World's Climate Stabilization Goals," *Finance & Development* 56, no. 4 (December 2019): 16–19.

23 Ibid.

24 Sébastien Postic and Clément Métivier, "Global Carbon Account 2019," Institute for Climate Economics, May 2019, https://www.i4ce.org/wp-core/wp-content/uploads/2019/05/i4ce-PrixCarbon-VA.pdf.

25 Ian Parry, "Countries Are Signing Up for Sizeable Carbon Prices," IMFBlog, International Monetary Fund (IMF), April 21, 2016, https://blogs.imf.org/2016/04/21/countries-are-signing-up-for-sizeable-carbon-prices.

26 "Questions and Answers: The IMF's Response to COVID-19," IMF, June 29, 2020, https://www.imf.org/en/About/FAQ/imf-response-to-covid-19.

27 Clemence Landers, Nancy Lee, and Scott Morris, "More Than $1 Trillion in MDB Firepower Exists as We Approach a COVID-19 'Break the Glass' Moment," Center for Global Development, March 26, 2020, https://www.cgdev.org/blog/more-1-trillion-mdb-firepower-exists-we-approach-covid-19-break-glass-moment.

28 David Malpass, World Bank Group response to legislators' letter of May 2013, World Bank Group, May 27, 2020, https://reliefweb.int/sites/reliefweb.int/files/resources/World%20Bank%20Group%20response%20to%20legislators'%20letter%20of%20May%2013.pdf.

29 *Making the Global Financial System Work for All*, G-20 Eminent Persons Group on Global Financial Governance, October 2018, https://www.globalfinancialgovernance.org/assets/pdf/G20EPG-Full%20Report.pdf.

30 "IMF to Make $250 Billion SDR Allocation on August 28," IMF, August 13, 2009, https://www.imf.org/external/np/exr/cs/news/2009/cso79.htm.

31 Baoping Shang, Nghia-Piotr Le, Ian Parry, and David Coady, *Global Fossil Fuel Subsidies Remain Large: An Update Based on Country-Level Estimates*, IMF, Working Paper No. 19/89, May 2, 2019, https://www.imf.org/~/media/Files/Publications/WP/2019/WPIEA2019089.ashx.

32 Ivetta Gerasimchuk, *Fossil-Fuel Subsidy Reform: Critical Mass for Critical Change*, Stanley Foundation, Working Paper for Key Regional Actors and Sector Opportunities for International Climate Change Cooperation, May 27-28, 2015.

33 "COVID-19 and Energy: Setting the Scene," *Sustainable Recovery: World Energy Outlook Special Report*, International Energy Agency, Flagship Report, June 20, 2020, https://www.iea.org/reports/sustainable-recovery/covid-19-and-energy-setting-the-scene#abstract.

34 *The Emissions Gap Report* 2019, United Nations Environment Programme, November 26, 2019, https://www.unenvironment.org/resources/emissions-gap-report-2019.

35 The average was four years to "recover" after the 2008–09 crisis and 10 years for the Great Depression.

36 "'One Sun One World One Grid': India Initiates Talks on West to SE Asia Solar Grid," *Financial Express*, May 29, 2020, https://www.financialexpress.com/industry/one-sun-one-world-one-grid-india-initiates-talks-on-west-to-se-asia-solar-grid/1974441.

37 "High-Level Event on Financing for Development in the Era of COVID-19 and Beyond," United Nations, May 28, 2020, https://www.un.org/en/coronavirus/financing-development.

38 The Finance in Common Summit: The First Global Meeting of All Public Development Banks," Finance in Common, April 28, 2020, https://financeincommon.org.

39 Larry Fink, "A Fundamental Reshaping of Finance," BlackRock, January 14, 2020, https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter.

40 Fatih Birol, "Put Clean Energy at the Heart of Stimulus Plans to Counter the Coronavirus Crisis—Analysis," IEA, March 14, 2020, https://www.iea.org/commentaries/put-clean-energy-at-the-heart-of-stimulus-plans-to-counter-the-coronavirus-crisis.

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