

GLOBAL SOLUTIONS JOURNAL

RECOUPLING

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Paradigm change for a sustainable world order



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Dear Reader,

In the fifth edition of this journal, researchers from the Global Solutions network offer their visions and recommendations for engaging with this year's G20 priorities. The recent spread of Covid-19, the coronavirus, is challenging globalization in its old form and shows the need for a new orientation, one based on international cooperative measures that empower and protect societies. Global problems can only be defeated if the international community works more closely together than ever.

This understanding is reflected in the key aims of this year's Saudi Presidency and groups like the Think 20 (T20): Empowering people, safeguarding the planet and shaping new frontiers. The Saudi G20 Sherpa Fahad Almubarak describes these priorities in his article on raising collective ambitions and strengthening commitments.

Faced with global challenges like climate change, the G20 is now focused on implementing the agreements it has already

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Global Solutions Summit 2019 Opening Plenary: [from left] Naoyuki Yoshino, T20 Japan; Ronnie Chan, Hang Lung Group; Ngaire Woods, Oxford University; Evan Davis, BBC; Gabriela Ramos, OECD; Dennis J. Snower, Global Solutions Initiative; Colm Kelly, PwC.

achieved. In their contribution, John Kirton and Jessica Rapson present concrete instruments to ensure countries comply with their commitments.

In politics, business and civil society, people are now taking action to safeguard the planet. With its Green Deal, the EU has developed an ambitious strategy for fighting climate change. Executive Vice President of the European Commission Frans Timmermans explains the thinking behind this strategy.

A common thread that joins all three aims of the Saudi Presidency is the conviction that multilateral and international cooperation partners should put human needs and purposes at the heart of their endeavors. The G20 can accomplish this by seeking to recouple economic, social and environmental progress.

This requires concepts for measuring how people are faring around the world. The article Recoupling Economic and Social Prosperity proposes a "recoupling dashboard", a new instrument that considers a broader variety of factors than mere economic growth for assessing human well-being.

This journal features many other insightful contributions. The ideas expressed by the authors help prepare the ground for the T20 Summit and the G20 Leaders' Summit. As always, we invite you to contribute articles to the next journal, with your proposals for global solutions to G20 issues.

Yours, in hope and confidence,

Global Solutions Journal

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Recoupling economic and social prosperity

The “Recoupling Dashboard” – A new measurement for well-being beyond GDP

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**GLOBAL SOLUTIONS
THE WORLD POLICY FORUM**

The Global Solutions Initiative is a global collaborative enterprise that proposes policy responses to major global problems, addressed by the G20, the G7 and other global governance fora. The policy recommendations and strategic visions are generated through a disciplined research program by leading research organizations, elaborated in policy dialogues between researchers, policy-makers, business leaders and civil society representatives.



The Kiel Institute for the World Economy is an international center for research in global economic affairs, economic policy consulting, and economic education. The Institute engages especially in creating solutions to urgent problems in global economic affairs. It advises decision makers in policy, business, and society and informs the broader public about important developments in international economic policy.

Many of the prominent challenges of the 21st century – including the rise of populism, growing nationalism, a backlash against globalization and multilateralism – arise from a decoupling of economic prosperity and social prosperity. While GDP per capita – our conventional measure of economic prosperity – has grown reasonably steadily over the past four decades, this growth does not appear to have been matched by a steadily rising sense of social prosperity, in terms of rising well-being within thriving societies. Nor has this economic growth been environmentally sustainable, with further adverse repercussions for social prosperity. The persistence of national, ethnic and religious conflicts around the world, combined with rising dissatisfaction among large population groups that feel “left behind” in both the developed and developing countries, attests to such decoupling of economic prosperity from social prosperity for significant segments of modern societies. Tackling the major challenges of our times will involve confronting the paradox of growing economic activity in an integrated global economy, accompanied by ongoing tensions arising from fragmented societies and polities.

A major problem in tackling the decoupling of economic and social prosperity is that politicians are far more sensitive to economic prosperity than its social counterpart. For example, when French President Emmanuel Macron taxed fuel to encourage the country’s transition to green energy at the end of 2018, he did not expect thousands of citizens to march through the streets in yellow vests. He apparently had neglected the possibility that achieving economic prosperity through “green growth”

may leave large segments of voters personally disempowered and socially alienated. The same holds with regard to the massive protests in Chile that began with a subway fare hike and those in Lebanon, which were triggered by a WhatsApp tax.

»Tackling the major challenges of our time will involve confronting the paradox of growing economic activity in an integrated global economy.«

The sense of disempowerment and social alienation is experienced among many significant population groups in advanced and emerging economies, from inhabitants of America’s “rust belt” and Britain’s small towns to Africa’s unemployed youth. In short, in many countries around the world, economic prosperity, environmental

performance and social prosperity are no longer aligned.

We propose the "Recoupling Dashboard", providing a new theoretical and empirical basis for assessing well-being beyond GDP. It sheds light on the decoupling process and provides an empirical basis for mobilizing action by government, business and civil society to promote a re-coupling of economic and social progress. Given that the purpose of government and business is to promote the public interest, the Recoupling Dashboard is a step toward suggesting that government and business decisions be based on assessments, not only of their impacts on GDP and environmental performance, but also on solidarity and empowerment and agency.

The central conceptual insights of our analysis rest on the following claims: (i) Human well-being is about more than satisfying preferences for the consumption of goods and services. It also includes the pursuit and achievement of value-driven purposes. (ii) Since the success of homo sapiens is built largely on cooperation and niche construction, humans have evolved motives to socialize (particularly in groups of limited size) and to use their capacities to shape their environment. (iii) Consequently, personal agency and social solidarity have become fundamental sources of human well-being.

On this basis, we introduce two new, innovative indexes, agency and solidarity, to be examined alongside economic prosperity as well as environmental sustainability to gain a more balanced and profound understanding of well-being. Our agency index involves agency; it involves people's need to influence their fate through their own efforts and is measured across five

components: "Labor market insecurity," "Vulnerable employment," "Life expectancy," "Years in education" and "Confidence in empowering institutions". Our solidarity index covers the needs of humans as social creatures, living in societies that generate a sense of social belonging. With respect to social belonging, "solidarity" may be considered synonymous with "social cohesion" and "social inclusion". Our Solidarity Index is measured across three components "Giving behavior," "Trust in other people" and "Social support"¹.

»The Recoupling Dashboard is a step toward suggesting that government and business decisions be based on not only their impacts on GDP.«

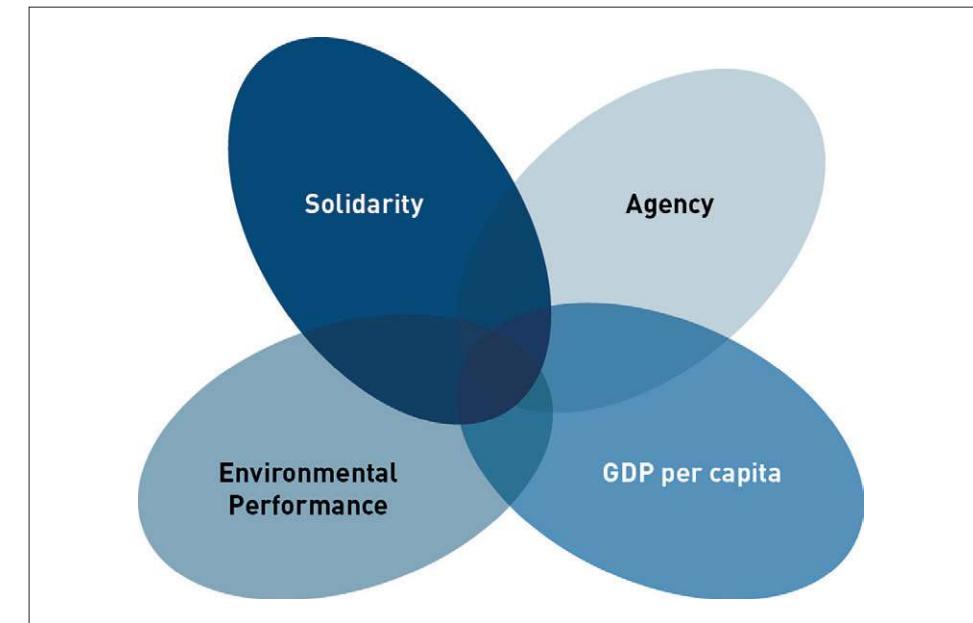
The relation among the four indexes above is illustrated in Figure 1. The economy and society are embedded in the natural environment. Thus the circle denoting "economic prosperity" (measured by GDP

per capita) and the circles denoting "social prosperity" (measured by our agency and solidarity indexes) are linked to the circle denoting "environmental performance" (measured by our agency and solidarity indexes). In well-functioning socio-economic systems, the economic-prosperity circle largely overlaps with the social-prosperity circle, i.e., the incentives, motives and attitudes (including trust, social support, economic security and so on) that people need to conduct economic transactions are the ones that promote social prosperity in their societies. For an economy that grows (in terms of GDP per capita) while its citizens are mired in dissatisfaction and conflict, the economic-prosperity circle is decoupled from the social-prosperity circle.

For an economy whose growth is becoming increasingly unsustainable, the economic-prosperity circle is growing while the environmental-performance circle is shrinking.

We argue that agency and solidarity – alongside economic prosperity and environmental sustainability – cover fundamental human needs and purposes present in all cultures. When people's important material needs have been met, when they feel securely and meaningfully embedded in society, when they have the power to influence their circumstances in accordance with self-determined goals, and when they live respectfully of planetary boundaries, then they achieve a wider sense of human well-being than when they simply maximize GDP growth. Failure to

Figure 1: The relation among the four indexes



achieve any of these ends is associated with suffering. The inability to meet basic material needs signifies extreme poverty; lack of agency signifies a lack of freedom, self-expression and self-determination; failure to achieve social solidarity is associated with loneliness and alienation; and living unsustainably means robbing future generations (as well as others in the current generation) of the opportunity to lead flourishing lives.

The four goals – agency, solidarity, economic prosperity and environmental sustainability – are not consistently substitutable for one another. The gains from agency and solidarity generally cannot be

translated into temporally invariant money terms, whereby economic prosperity is measured. In order to thrive, people need to satisfy all four purposes – their basic material needs and wants, their desire to influence their destiny through their own efforts, their aim for social embeddedness, and their need to remain within planetary boundaries. Agency is valueless when one is starving; consumption has limited value when one is in solitary confinement; and so on. Furthermore, the gains from agency, solidarity, economic prosperity and environmental sustainability are different in kind and thus not readily commensurable.

Figure 2: Comparison of indexes of the four dimensions of human well-being in 2007 and 2017 and over time for selected high-income countries

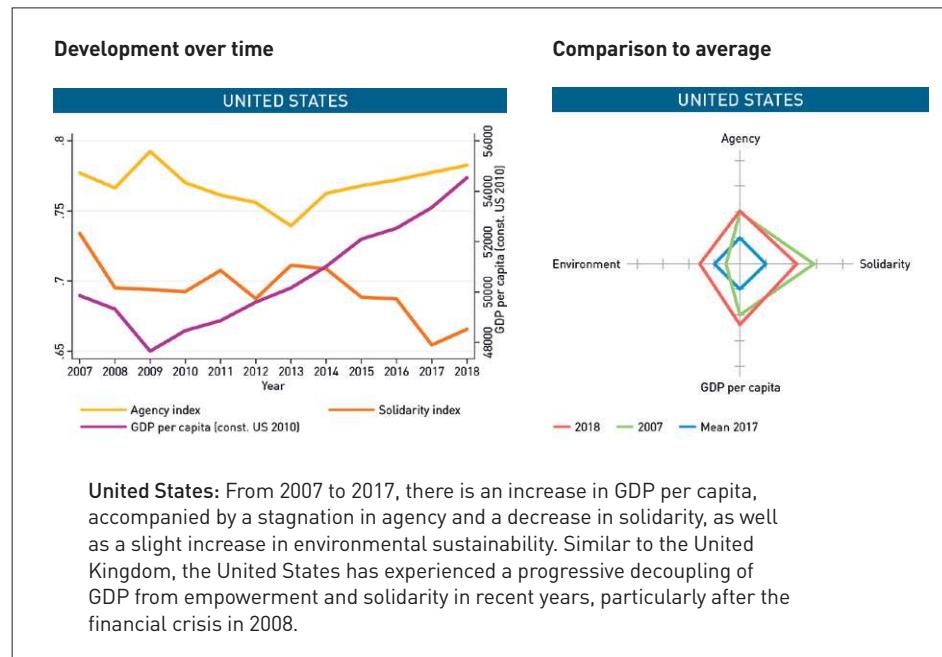
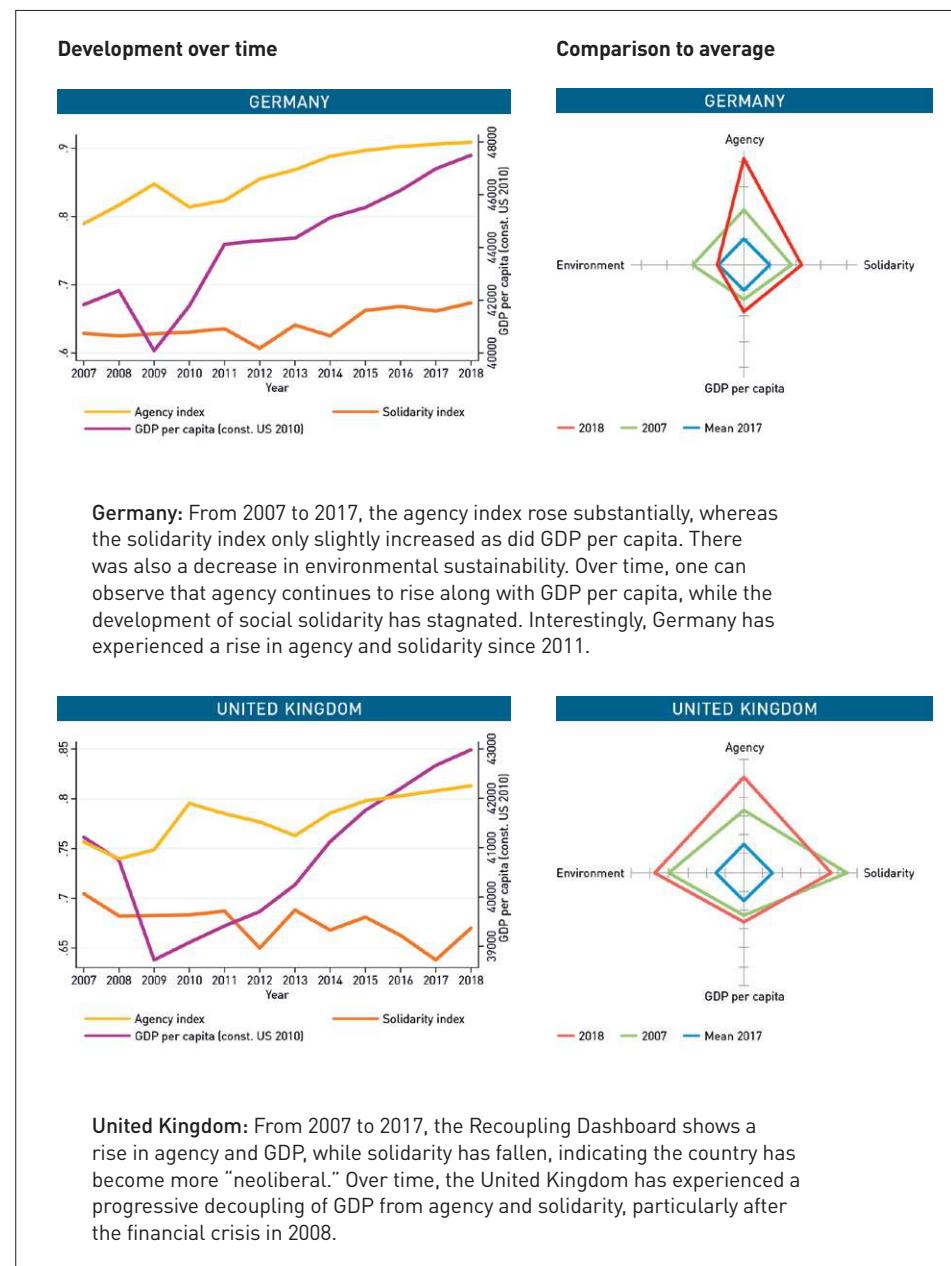


Figure 2: Comparison of indexes of the four dimensions of human well-being in 2007 and 2017 and over time for selected high-income countries



That is the reason why our indexes of agency, solidarity economic prosperity and environmental sustainability are to be understood as a dashboard. Just as the dashboard of an airplane measures magnitudes (altitude, speed, direction, fuel supply, etc.) that are not substitutable for one another (e.g. correct altitude is not substitutable for deficient fuel), so our four indexes are meant to represent separate goals. Only when a country makes progress with respect to all four goals can there be some grounds for confidence that a broad array of basic human needs and purposes is being progressively met.

»The Recoupling Dashboard offers a new approach to the evaluation of human well-being.«

The Recoupling Dashboard includes data from more than 30 countries² from between 2007 and 2017. Summarized on an X-Y plane, the Recoupling Dashboard gives a visualization of how the relationship between the four dimensions varies through time and across countries. Our data shows that solidarity and agency develop differently over time and across countries compared to indexes of GDP per

capita and environmental sustainability.

Countries with a high GDP are not necessarily ones that show high solidarity or agency. In fact, many countries growing in terms of GDP per capita show a substantial decrease in the solidarity index over time. Such a disconnect is an indication of a decoupling of economic and social prosperity. In the Development over Time section in Figure 2, the Recoupling Dashboard shows that solidarity and agency follow time paths that are distinct from GDP per capita.

In the Comparison to Average section in Figure 2, the baseline square (in blue) represents the average values of the four indexes across the countries in the base year (2007). Comparing the green and red line shows in one glance how a country developed over the past decade in each of the four dimensions. Comparison with the blue square and across the different graphs allows for cross-country comparisons.

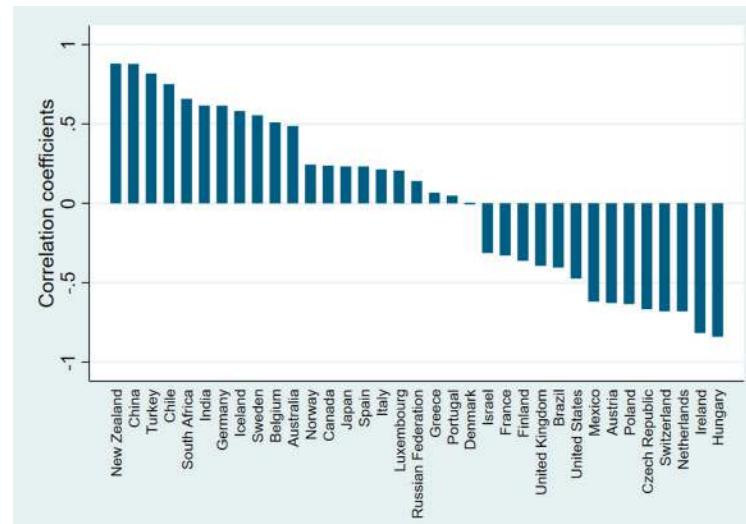
As we can see, the time series and cross section evidence indicate that solidarity and agency are phenomena that are distinct from economic prosperity and environmental sustainability.

The degree to which solidarity is correlated with GDP per capita and the degree to which agency is correlated with GDP per capita varies across countries. (Figure 3) We furthermore found suggestive evidence that inequality does not capture the phenomena of solidarity and disempowerment either. (Figure 4)

The Recoupling Dashboard offers a new approach to the evaluation of human well-being. With further elaboration, the Recoupling Dashboard can become a powerful tool to assess how decisions by governments and businesses affect human well-being. Currently, policy measures

Figure 3: Correlation between the indexes and GDP per capita across countries

(a) Solidarity index



(b) Agency index

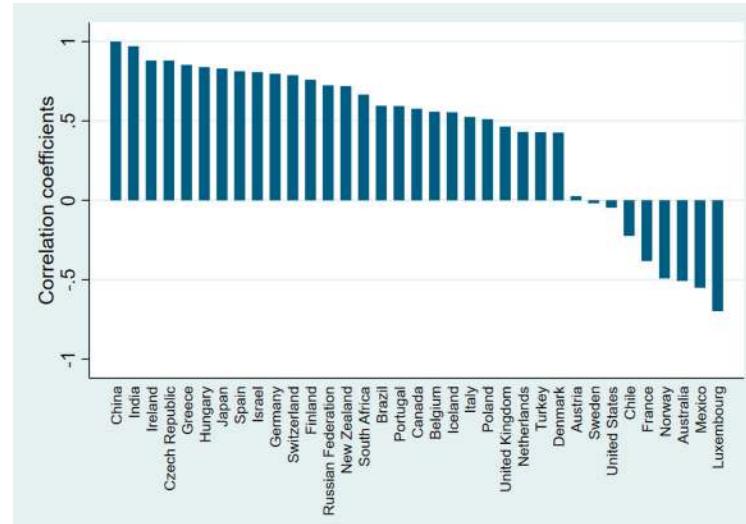
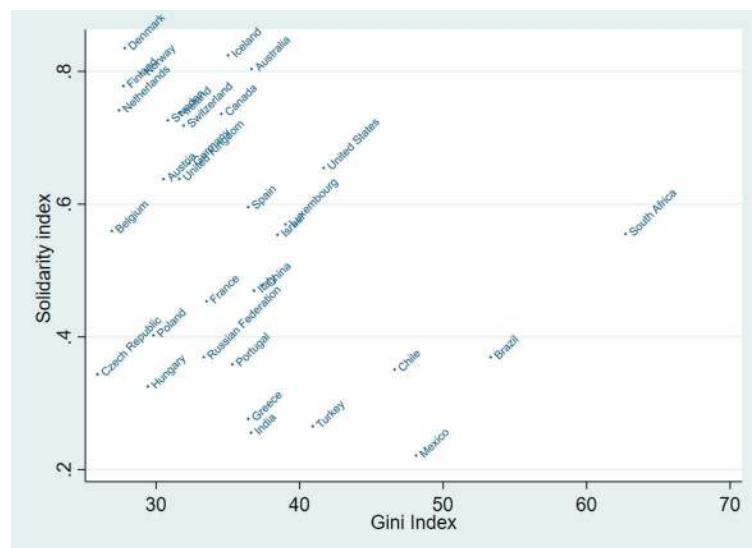
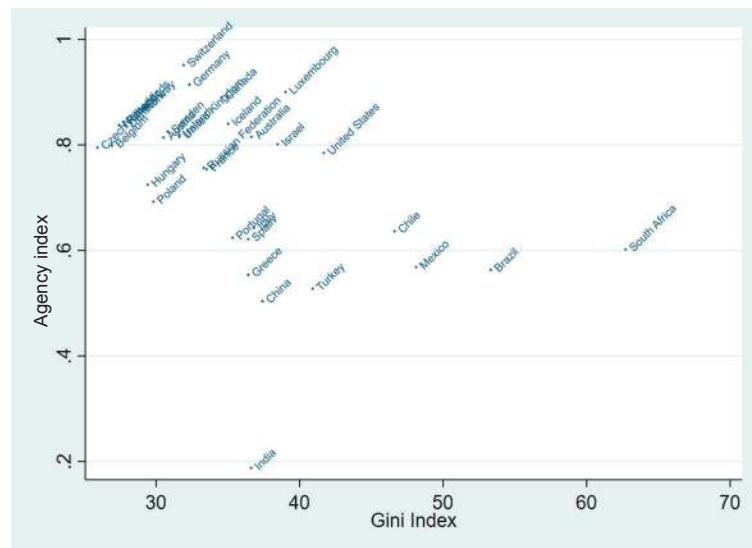


Figure 4: Correlation between the indexes and GDP per capita across countries

(a) Solidarity index



(b) Agency index



are evaluated primarily in terms of their impact on GDP. Similarly, business decisions related to production, employment and future investments are made primarily in terms of maximizing shareholder value.

The Recoupling Dashboard is a first step towards reshaping governance systems in both government and business, with the aim of recoupling economic and social prosperity.

¹ The data used is exclusively provided by external sources, such as the OECD or the World Bank.

² Australia, Austria, Belgium, Brazil, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Latvia, Lithuania, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Russian Federation, Slovenia, South Africa, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States.

New approaches to global solutions

Building a new growth narrative around complexity to deliver for people's well-being

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The Organisation for Economic Co-operation and Development (OECD) is an international organization that works to build better policies for better lives. Our goal is to shape policies that foster prosperity, equality, opportunity and well-being for all. We draw on almost 60 years of experience and insights to better prepare the world of tomorrow.

Together with governments, policy makers and citizens, we work on establishing international norms and finding evidence-based solutions to a range of social, economic and environmental challenges. From improving economic performance and creating jobs to fostering strong education and fighting international tax evasion, we provide a unique forum and knowledge hub for data and analysis, exchange of experiences, best-practice sharing, and advice on public policies and global standard-setting.

WE ARE CONFRONTED WITH A RANGE OF BAD OUTCOMES...

At least since the onset of the global financial crisis in 2008, it has become increasingly clear that the economic performance of many OECD countries is deficient in a number of important ways.

To begin with, economic growth has slowed. The rate of increase of per capita GDP in OECD countries declined from over 2% per year on average in the twelve years preceding the global crisis to only 1% in the twelve years since. Part of that decline is attributable to the depth of the crisis itself, the sharpest global downturn in 80 years, but even excluding the crisis years of 2008-09, OECD-wide per capita GDP has grown by an annual average of 1.7% over the past 10 years, half a percentage point below the 2.2% recorded in the 10 years to 2007.

Moreover, the fruits of economic growth are not being shared equally. The gap between rich and poor has widened since the 1980s in the large majority of OECD countries. The OECD average Gini coefficient of income inequality stood at 0.32 in 2017, up from 0.29 three decades ago. Today, the richest 10% of the popu-

lation earns nine and a half times the income of the poorest 10%, up from a ratio of 7:1 in the 1980s; at 8:1 in the 1990s and 9:1 in the 2000s. When combined with slower rates of growth in average incomes, the skewed distribution of the gains has meant that many people in our economies have seen little if any increase in their material standard of living over long periods, sometimes even decades. This is also reflected in surveys showing record-low numbers of people expecting their children to be better off than they are. A related problem is the decline in social mobility seen in many OECD economies: The recent OECD report *A Broken Social Elevator?* estimates that on average it would now take five generations for a child born into a low-income family to reach the median income, while those at the top will remain there. We call this "sticky floors" and "sticky ceilings". Moreover, this is not a problem of people at the bottom of the income distribution. On the contrary, increased inequalities strongly affect middle classes, who have seen their income stagnate, while the cost of housing, health and education have grown several times more.

Last but not least, the quickening drumbeat of bad news relating to the environment in recent years – be it unprecedented wildfires in Australia, rampant plastic pollution in the oceans, deforestation in the Amazon or the accelerating loss of biodiversity worldwide – has made it indisputably clear that human economic activity is contributing to a series of planetary emergencies. Above all, the costs of ongoing climate change are coming ever more starkly into view.

On current trends, regions of the world will become uninhabitable due to rising

sea levels or desertification, the likelihood and intensity of extreme weather events will increase, and changing precipitation patterns and temperatures will affect crops and livestock. Climate change might also lead to so-called "tipping-points", i.e. dramatic changes in the system that could have catastrophic and irreversible outcomes for natural systems and society. Examples of potential non-linear irreversible changes include increases in ocean acidity, which would affect marine biodiversity and fish stocks, accelerated methane emissions from permafrost melting, and rapid climate-driven transitions from one ecosystem to another. Moreover, the world has already experienced damaging conflicts and mass migrations arising from droughts and water stress, and the likelihood that continued climate change would trigger further such episodes is high.

»The fruits of economic growth are not being shared equally.«

It is against this backdrop that in 2011 we launched the New Approaches to Economic Challenges (NAEC) initiative at the OECD to explain better how our economy works, with a view to providing better policy advice and fostering better outcomes. NAEC has done this by combining the

OECD's strengths in evidence-based policy advice with the insights and expertise of a network of partners and institutions outside our organization. Such partners include research institutes (e.g. IIASA, INET), public institutions (e.g. the Bank of England and the European Joint Centre for Research), foundations (e.g. Partners for a New Economy), and businesses (e.g. asset managers Baillie Gifford).

...WHICH IN PART REFLECT SHORTCOMINGS IN ECONOMIC ANALYSIS AND POLICY MAKING

In parallel to the growing dissatisfaction with a number of aspects of economic outcomes in OECD countries, there has also been a decades-old questioning of many of the tenets underpinning mainstream approaches to economic growth and its drivers. Researchers have called into question a number of standard assumptions: that economic agents are maximizers (utility for households, profits for firms), that they act atomistically (ignoring other agents), that they are "rational" and homogeneous, that no economic agents have power, that markets have unique stable equilibria etc. It has been shown that all these assumptions are unreal, and that it matters. When agents are heterogeneous, strategic, concerned with relativities, use rules of thumb, have adaptive expectations and are influenced by history, culture and "framing", and when they participate in markets where economic power is important and where multiple and unstable equilibria are possible and path dependence common, outcomes can be quite different to the predictions of the old standard models. Adopting more accurate characterizations of people's economic behavior can be of

great help in understanding how we came to have slow growth, damaging financial crises, high levels of inequality and environmental degradation, and in designing policies to achieve better outcomes. Understanding that markets are the result of policies and regulations would help to better frameworks and outcomes.

»Narratives shape what is going to happen and how we react to it.«

Another problematic issue has been the tradition of reductionism – where we separate complex realities into specialized disciplines, fields of research, agencies and ministries, each focused on a part of the overall truth. Thus, even when it was recognized that the ultimate objective is sustainable well-being, which is multi-dimensional (income, health, security, status, fairness etc.), it has tended to be assumed that the dimensions can be considered separately. Thus, the problem of maximizing income (GDP) could be considered in isolation from questions of distribution or the environment. When interactions were considered, there was often a tendency to assume that other aspects of well-being could be relied upon to be correlated with per capita GDP. For example,

the well-known Kuznets curve hypothesis predicted that income inequality would continue to decline in rich countries as per capita income rose, and a similar relationship was argued for environmental degradation, implying that raising per capita GDP would tend to solve the problem of pollution. This encouraged the tendency to focus narrowly on GDP growth as the objective of economic policy. A similar assumption of separability afflicted the role of finance in the economy: The financial sector was typically lacking from standard models used to analyse and forecast macroeconomic developments.

The poor outcomes in terms of inequality, environmental quality and economic growth itself strongly suggest that the reductionist tradition has to be rejected and a more systemic approach adopted. Trickle down economics do not work, and the environmental emergency calls for a better understanding of the links between different policy issues and decisive action. We have come a long way toward understanding that the economy, society and the environment are not only complex systems in themselves, but that they form a "system of systems" that is best considered as a whole in trying to promote change that puts people at the centre. This should be the core of our economic thinking today.

Along with better theories and better specifications of policy objectives, we have also realized that there is a need for better data. One aspect of the excessive focus on GDP that there is no other broad aggregate economic indicator which is as timely and internationally comparable and which has such a long time series. These are formidable advantages. As our former

Chief Statistician, Martine Durand, used to remind us, however, "we need to measure what we treasure instead of measuring what we measure". GDP says nothing about distribution, captures only flows and not stocks, excludes unpaid work, puts no value on leisure, subtracts nothing for environmental degradation, and so on. It is at best a very incomplete measure of economic performance. A great deal of work is underway, both inside and outside the OECD, to move beyond GDP and develop a range of indicators that give a fuller and better picture of sustainable well-being. In fact, the leading role that the OECD has played in showing increased inequalities of income and opportunity was possible when the analysis moved from averages to different income groups, and their disposable household income.

THE NEED TO MOVE BEYOND GROWTH

Nobel laureate Robert Shiller, in one of our NAEC debates, argued convincingly that narratives are not just a way of explaining things to ourselves, of understanding what has happened. They also shape what is going to happen and how we react to it. In that spirit, the Secretary-General of the OECD commissioned an Advisory Group¹ on a New Growth Narrative to examine how economic, social and environmental considerations could be integrated into a coherent approach. The group's report, Beyond Growth: Towards a New Economic Approach, drafted by Michael Jacobs, outlines such a new narrative, which has three main elements.

The first is a new conception of economic performance, going beyond GDP to focus on multiple dimensions of human well-being, including economic security,

environmental quality, subjective well-being and the provision of public goods. This does not mean a rejection of growth; rather, it means accepting that growth is just one aim among others, and that focusing on it exclusively is counterproductive. Our work on the Well-Being Framework has built the same narrative, by proposing 11 dimensions that can inform better what matters for people – including subjective well-being. Our Inclusive Growth Initiative is also proposing a dashboard of 24 indicators to inform better the policies to counter inequalities, and advancing a better understanding of the distributional outcomes of the policies we propose.

The second element is composed of the new frameworks of economic theory and analysis to explain better how economies work, together with new tools and techniques to help policymakers develop effective policies. This includes gathering new and better data.

Finally, the new narrative also calls for a wider set of policy and institutional reforms, based on the new frameworks and analysis, to achieve the new social and economic goals. Government action matters to counter inequalities, environmental depletion and social fragmentation.

Speaking at an NAEC Conference, Noam Chomsky welcomed the rethinking of economic orthodoxy proposed in Beyond Growth, highlighting how the report cast new light on the proper role of government. It draws on the ideas of Dennis Snower, a member of the Advisory Group and a longstanding supporter of NAEC who has coined the term “empowering state”, and Mariana Mazzucato, another Advisory Group member who has argued for the need for the state to shape markets

rather than only seeking to correct market failures. The state can redistribute not only money but also incentives and skills in such a way as to achieve the broader policy goals.

TOWARDS A BETTER APPROACH TO FINDING GLOBAL SOLUTIONS

The task remains of fleshing out the three elements comprising the new narrative in Beyond Growth. At all stages – formulating broader policy objectives, understanding how policies act on those objectives and how different dimensions interact, and designing the policies that will achieve better outcomes – we think that a systems approach is needed. We must move away from linearity, equilibrium, assumptions about the rationality and representational characteristics of agents and instead view the economy as a complex adaptive system, where heterogeneous agents interact, systemic properties emerge and the system continually evolves and reorganizes itself in response to multidimensional stimuli at micro to macro levels.

In making that transition, it will help to enrich the insights from economics with those from political science, engineering, physics, psychology, biology and history. For example, at one NAEC presentation, Douglas Erwin, paleobiologist from the Smithsonian Museum of Natural History, explained how the history of life on earth showed repeated long periods of apparent stability ending in rapid collapse, followed by slow recovery in which new things happen.

NAEC is seeking to draw from a wide range of disciplines in order to help provide a stronger scientific basis for policy, based on a systems approach, and yield a

better understanding of dynamics, feedback loops, tipping points, and system collapse. That requires a stronger connection between the “science” and “engineering” of economics, that is, between economic analysis and economic policy, and the development of new analytical tools and techniques such as network models and agent-based modelling. The benefit of the systems approach is to understand better the links and interrelationships between the social, economic and environmental systems, and consider possible unintended consequences of acting with a silo perspective.

»A systems-based approach exposes the intricacies and complications of the challenges we face.«

A systems-based approach exposes the intricacies and complications of the challenges we face. But it also shows that the very characteristics of systems that make the problems so difficult can, by the same token, work in our favor. Positive change can be transmitted quickly too, and small positive actions can have big consequences when they are amplified by the numerous interconnections among

people and places. New approaches to finding global solutions means being clear about the direction of change we want to follow and identifying the actions that will push us in that direction.

We should not expect a single synthetic “theory of everything” in economics to emerge any time soon, enabling policymakers to maximize policy objectives by applying a universal model. Rather, a proper appreciation of the complexity of the interacting systems of which the economy is a part is likely to mean exercising judgement, applying a range of approaches, drawing on insights from many disciplines, and keeping in mind multiple goals. It is encouraging that the world’s endorsement of the Sustainable Development Goals is in this spirit, as indeed is the Paris Agreement on climate change. At the OECD, we have made a good start on several fronts, not only with NAEC but also via the Inclusive Growth Initiative and the Well-Being Framework. This year’s Ministerial Council Meeting in May, chaired by Spain, will take stock of the progress made and chart a course toward a more integrated framework.

This is not an academic exercise. The capacity of current approaches to give answers to the people in the streets that are worried by the “end of the month”; and those that care about the “end of the world”, is limited. We need to understand better so we can deliver the OECD’s motto of better policies for better lives. There is no time to lose, as the urgency of the current situation is clear. The OECD is keenly aware of the need for global solutions and is determined to remain at the forefront of the effort to find the new approaches that will illuminate them.

Why corporate purpose matters

A plea for responsible profit-making

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The institution:



Princeton University is a vibrant community of scholarship and learning that stands in the nation's service and the service of humanity. Chartered in 1746, Princeton is the fourth-oldest college in the United States. Princeton is an independent, coeducational, nondenominational institution that provides undergraduate and graduate instruction in the arts and humanities, social sciences, natural sciences, and engineering.

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INTRODUCTION

After several decades in which shareholder value has been promoted as the most rational goal a corporation should pursue, questions are being raised, doubts are arising, and criticism is becoming louder and louder. Among the alternatives to shareholder value that are emerging, the idea that managers should be attentive to the interests of all stakeholders is gaining ground.

In this paper, three questions are examined:

- How could shareholder value be so successful? There must be economic mechanisms that make it a prominent option for the organization of the business sector.

- What is the contribution of a productive firm to society and how can it be maximized? A firm does benefit many stakeholders, and it is possible to rigorously define the total benefit it brings to them.

- How can the stakeholder approach be promoted and implemented concretely in a market economy that puts pressure on most firms to maximize profit rather than focusing on the total surplus generated?

¹ The group included Andy Haldane, Michael Jacobs, Nora Lustig, Mariana Mazzucato, Robert Skidelsky, Dennis Snower and Roberto Unger.

THE FIRM AS A COOPERATIVE VENTURE

What is a firm? At the most fundamental level it is a cooperative venture that connects the wants and desires of its customers and the abilities and resources of its producers and suppliers. Can we measure the benefits that the firm brings to society through its operations linking customers, producers and suppliers? A simple option is to simply sum up all the surpluses of the parties to the firm's operations, and add the net (i.e., positive minus negative) value of externalities. After some basic accounting calculus, one finds that the sum of surpluses is simply equal to the difference between the willingness of customers to pay (i.e., the maximum amount they would accept to pay) for the product they get, and the willingness of producers and suppliers to accept a certain payment (i.e., the minimum compensation they would require) for the effort and resources they provide. This provides a very clear conceptual notion of value contributed by the firm to society:

$$\text{Sum of surpluses} + \text{net externalities} = \text{willingness to pay for product} - \text{willingness to accept for inputs} + \text{net externalities}$$

The point of this paper is that the purpose and governance of the productive firm, especially whether it maximizes profit or the total surplus, is absolutely central for understanding essential features of current varieties of capitalism, and for imagining possible reforms in order to design more equitable and sustainable institutions.

PROFIT FROM NECESSITY TO PURPOSE

The firm produces social welfare by realizing the benefits of cooperation between customers, producers and suppliers. We have shown that the total value of this co-

operation to society involves adding up all the surpluses of the parties. However, for this to be a viable operation, the firm must be able to pay its bills from the cash flow it receives from its sales. While financiers provide seed funding in the beginning, the firm cannot continue for long if it loses money in its daily operations. In other words, a non-negative profit is a key viability condition for any firm.

»The firm produces social welfare by realizing the benefits of cooperation.«

Profit is primarily a viability variable, but one can identify three channels by which such a viability variable is ultimately likely to become the paramount objective of most actors in the game. These mechanisms probably explain why profit has become such a prominent value in business culture.

The first mechanism is competition by entry. When various firms in an industry pursue a diversity of goals, those that do not maximize profit leave opportunities for profit on the table. Profit-seeking actors can then enter and reap some of these opportunities. As a consequence, constant pressure by the entry of profit-maximizing competitors can contribute to disciplining firms.

The second mechanism involves differential resilience to shocks. Shocks to input prices or to demand that reduce profits for all firms threaten their viability, and those that start out with lower profitability are the first to be eliminated, unless they have special mechanisms to shoulder the shocks temporarily.

The third mechanism that pushes profit is competition by takeovers. If a firm pursues other objectives and fails to maximize its profit, a corporate raider can raise capital, buy the firm and make a benefit by reorienting it toward greater profit, selling it afterward at a greater value. This mechanism supposes that it is possible to "buy the firm" and change its management, which requires a specific capitalist legal setting.

This list of mechanisms is not exhaustive. For instance, the creation of firms is a moment when pressure for granting control and guarantees to financiers is highest, leading most firms to adopt a conventional structure and a conventional shareholder value approach.

In addition to imposing profit as the corporate purpose for most of the competitive firms, these three mechanisms have some beneficial functions. First, they serve to weed out the firms that are badly managed or rely on outdated technology and methods. They therefore serve the beneficial function of allocating productive resources to their most effective uses. But while the efficiency and innovation-enhancing effects of competition are widely celebrated, the negative effects are often ignored, and this may prevent us from understanding the roots of our current failures.

SYSTEMIC FAILURES OF UNFETTERED CAPITALISM

Market failures have been analyzed thoroughly by economic theory, and they include phenomena related to externalities, public goods, commons, market power, adverse selection and moral hazard. But the fact that competition pushes firms to maximize profit is seldom depicted as a systemic failure. On the contrary, it is usually viewed as promoting efficiency. Unfortunately, in the most common circumstances, this is actually a source of serious problems.

Here are the main undesirable consequences of the profit motive. First, the firms are induced to make use of their market power whenever they have the occasion. In simple textbook examples of linear consumer demand and labor supply with constant returns to scale, a firm that maximizes profit by using its market power reduces its production by half compared to what it would do if it maximized the total surplus, and this reduces the total surplus by 25%.

Another consequence of the profit motive is that, combined with the use of market power, firms enter industries in excessive numbers, because they do not take account of the fact that they reduce the potential surplus of the incumbent firms when their presence splits the available demand. This additional effect, in the long-run equilibrium in which profit is approximately null, produces a further substantial reduction of the total surplus in the industry.

The tendency to have excessive entry is paralleled by a tendency to have excessive profit-enhancing innovation. In particular, the orientation of innovation is influenced by the profit motive and is unlikely to cor-

respond to welfare-maximizing innovation.

Another consequence of the profit motive is that, if workers are not involved in the daily management of the work program, the non-contractible aspects of work are determined by the firm in a way that inefficiently handles the costs imposed on workers.

Finally, even if externalities are well covered by economic theory, what is less often acknowledged is that the profit motive by itself tends to push firms to externalize as much of their costs as possible.

It may sound surprising that the profit motive is such a source of multiple inefficiencies, in contradiction to basic economic teaching. The explanation is that economic theory is heavily influenced by the special case of perfect competition with complete contracts and no externalities. In this special context, maximizing the profit is equivalent to maximizing the total surplus, but this does not hold at all in more realistic circumstances.

RESPONSIBLE FIRMS AND SOCIAL WELFARE

Given that competition drives the profit motive, one may be tempted to think that one should tinker with the market system and the price mechanism in order to address the systemic failures of the capitalist economy. But this would be too hasty a conclusion. Changing the corporate goal of the firm may go a long way toward alleviating capitalist failures.

A responsible firm, by definition, does not squeeze customers, workers and suppliers to increase its profit by exploiting its market power, and instead it maximizes the total surplus, with adjustment for externalities.

The problem of business externalities due to entry gives very interesting results in the presence of responsible firms. In absence of externalities, one can show that under free entry conditions, responsible firms spontaneously select the optimal number of firms in the industry and collectively achieve the maximum potential surplus for the whole industry. In the presence of externalities, the optimal number of firms still emerges in the long-run equilibrium with free entry if and only if the viability condition now involves profit adjusted for a Pigouvian tax, i.e., an amount equal to the externality valued at a shadow price corresponding to the marginal social (dis) value of the externality in money terms. If this Pigouvian tax (or subsidy if the net externalities of the firm are positive) is enforced by the government, the profit net of the Pigouvian tax operates as a very natural viability condition.

Responsible firms do spontaneously solve the externality due to entry, without any specific adjustment, but other externalities may be harder to address. Since every firm tries to maximize its own surplus, it is likely to over-invest in differentiation and advertising in order to enlarge its customer group, at the expense of other firms.

Non-contractible parameters of work can be addressed by any firm via a bargaining process, but responsible firms may be more likely to actually do it if their governance rules involve a greater participation by workers *qua* stakeholders.

In conclusion of this section, the key lesson is that there is no need to tinker with the price mechanism, with competition, with free entry, or with profit as a viability condition (provided a Pigouvian tax

is in place), when responsible firms are the only game in town and profit-maximizing firms are not allowed to compete. How can this be achieved if the market system is left in place, with all its inherent incentives pushing for profit maximization?

»The profit motive is a source of multiple inefficiencies.«

HOW TO REPURPOSE THE CORPORATION

Two distinct challenges need to be addressed. The first challenge is that the objective of responsible firms is hard to measure. Profit relies on very objective accounting data, even if expected profit, which involves subjective expectations, is a much more elusive notion. For the surplus, there is nothing like accounting data in the subjective valuations that customers put on the product and that workers and suppliers put on their services and resources. The second challenge is the incentive issue due to the pressure of competition, which forces profitability, a mere viability condition, to become an existential goal for most firms.

The first challenge may have a rather unexpected solution in profit maximization. Indeed, a firm that maximizes the total surplus adjusted for the impact of externalities on social welfare would be

completely mimicked, in all its decisions, by a firm that maximizes profit adjusted for a Pigouvian tax on externalities, under the constraint of not making use of its market power, and of setting up inclusive management to eliminate inefficiencies due to non-contractible work parameters. Recall that this adjusted profit is also the correct viability constraint for responsible firms, therefore the identity between viability condition and goal can remain true for responsible firms. But just as responsible firms must be prevented from using other pricing systems than the standard price mechanism, they must be prevented from using their market power.

It is easy to check that firms use the price mechanism rather than alternatives, but can it be checked that they do not use their market power? Maximizing profit while taking prices as given parameters is done by simple management rules, which are well known thanks to the focus of economics on perfect competition. The central one is that the marginal sales generated by an input (at the current product prices) must equal this input's price. Internal cost and productivity measurements in the firm typically do produce this type of information and it can therefore be used in the appropriate way to ascertain that the firm maximizes profit, and does it without using its market power. Of course, for this scheme to work, suitable monitoring mechanisms must be put in place. Inclusive governance may be the simplest way to do this, because it would enable the stakeholders to blow the whistle when the firm exploits its market power at their expense. Similar management rules exist for the determination of non-contractible parameters of work.

»There is no need to tinker with the price mechanism when responsible firms are the only game in town.«

Inclusive governance cannot suffice to include all the interests affected by the firm's decisions, such as future generations and other species. Therefore, the

Pigouvian taxation adjustment mentioned earlier cannot be dispensed with. This raises a serious difficulty. Governments cannot be trusted to properly measure and apply the Pigouvian taxes and subsidies, and firms cannot be trusted to do it on their own. There is no miracle solution to this difficulty, and one may want to involve third parties, such as civil society organizations. These organizations could be given some power to lobby for particular levels of the Pigouvian taxes and for enforcing them, either by government intervention, or by responsible accounting by the firms themselves.

Acknowledgments: This paper and its longer companion benefitted from feedback by Dennis Snower, helpful comments by Colm Kelly and Gustaf Arrhenius, as well as conversations with Fabrice Murtin, and joint work with Grégory Ponthière on another paper cited here.

¹ Kelly (2019) argues that a reform of the corporation is urgently needed to address current social, political and environmental challenges. See also Mayer (2018), Bower and Paine (2017).

² This paper is an abridged version of Fleurbaey (2020).

³ The idea that market competition selects the profit-maximizing firms has long been suggested, including by Friedman (1953). Blume and Easley (2010) review the literature on this selection mechanism.

⁴ See Fleurbaey and Ponthière (2020) for details.

⁵ Tirole (2006), in particular, argues that stakeholders' interests are hard to measure and aggregate. Jensen (2001) argues that stakeholder theory commits managers to serve several objectives (e.g., as with the so-called balanced scorecard), which cannot work to guide their decisions and monitor their performance.

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Five theses against self-indulgence

How new cross-sector partnerships can balance financial, environmental and societal value creation

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The value balancing alliance was founded in June 2019 and represents large international companies, including BASF, Deutsche Bank, LafargeHolcim, Novartis International, Robert Bosch, SAP, SK Holdings, Mitsubishi Chemical Holdings and Porsche. The alliance is supported by Deloitte, EY, KPMG, PwC, the OECD as a policy advisor and leading academic institutions, such as the University of Oxford.

ABSTRACT

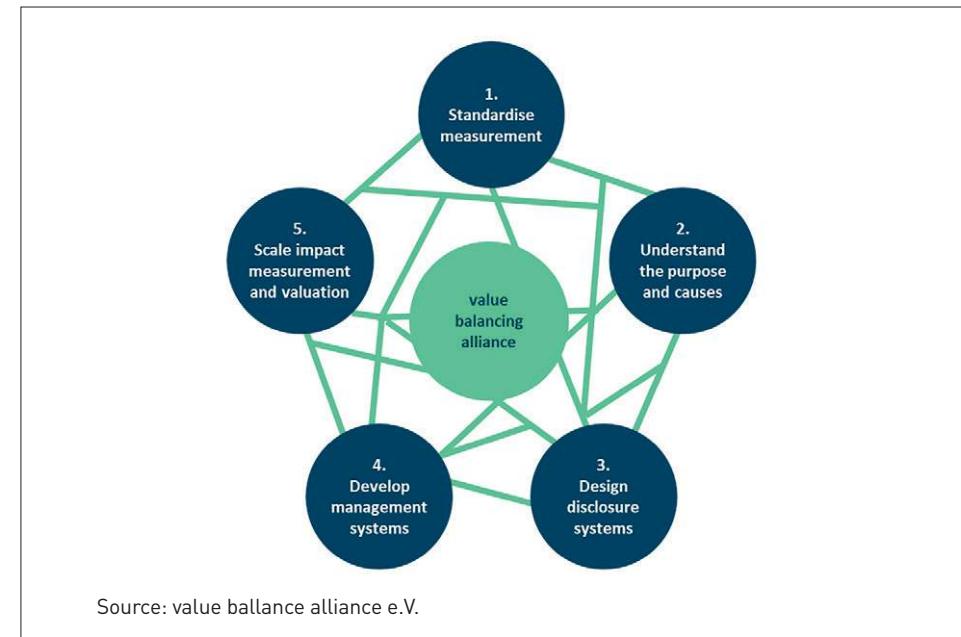
Our article builds a bridge between the global community of policymakers and various actors who are currently involved in crafting new concepts and standards to assess the social and environmental impact of companies. We map the fragmented landscape and show how a cross-sector partnership to balance financial, social, and environmental value can be built. We propose five theses against self-indulgence and for decision-making: standardizing measurements, understanding purpose and causes, designing disclosure systems, developing management systems, and scaling impact valuation. We describe one case of a cross-

sector partnership that works towards a global measurement and valuation standard for disclosing positive and negative impacts of organizational activity and ultimately provides guidance on how these impacts can be integrated into business steering. Finally, we conclude with recommendations on how policymakers can contribute to this important and urgent global solution.

INTRODUCTION

Remarkable parallels can be drawn between the path towards a global low-carbon economy and the time before the Reformation in Europe: the growing demand for company disclosures of various soci-

Figure 1: The five theses



etal and environmental impacts resembles the commercialization of indulgences in the late Middle Ages. Some churches famously traded indulgences by way of high fee payment for partial or full remission of their sins, comparable to debt payments. Subsequently, devote citizens paid exorbitant sums in exchange for certificates resulting in the growth of an extreme form of commercialization that quickly became open to abuse. As a reaction, a professor of theology and a priest, Martin Luther, formulated 95 theses against indulgences. His pamphlet criticized profiteering from these transactions and he allegedly pinned these papers on the portal of a church in a town south of Berlin. This event is believed to mark the beginning of the Reformation and, in turn, a fundamental change in eco-

nomic and social structures in medieval Europe.¹ Today, with social unrest around the world due to climate change and growing inequalities, we would like to set out five theses on how the global policy community can put an end to “sustainable self-indulgences” and move to decision-making that balances financial, environmental, and social value.

OUR CURRENT LANDSCAPE AND THE FIVE THESES

Transitions are always confusing: we left the old world order, but we have not yet found a new consensus. While we departed from a traditional world of local risks, we have not yet built the institutions, practices, and norms to tackle global challenges systematically.² The confusion in global ac-

counting policy is a symptom of this wider crisis of modernity. Global policy-making is highly fragmented and is lacking a moral discourse to coordinate business strategies, public policies, and civic activities.³ Recoupling the environment, society, and economy depends on how we understand value creation. Most analysts have framed problems as “externalities” to explain the negative impacts of corporate activity on society and the environment. Today, we observe a shift towards the measurement of impacts.⁴

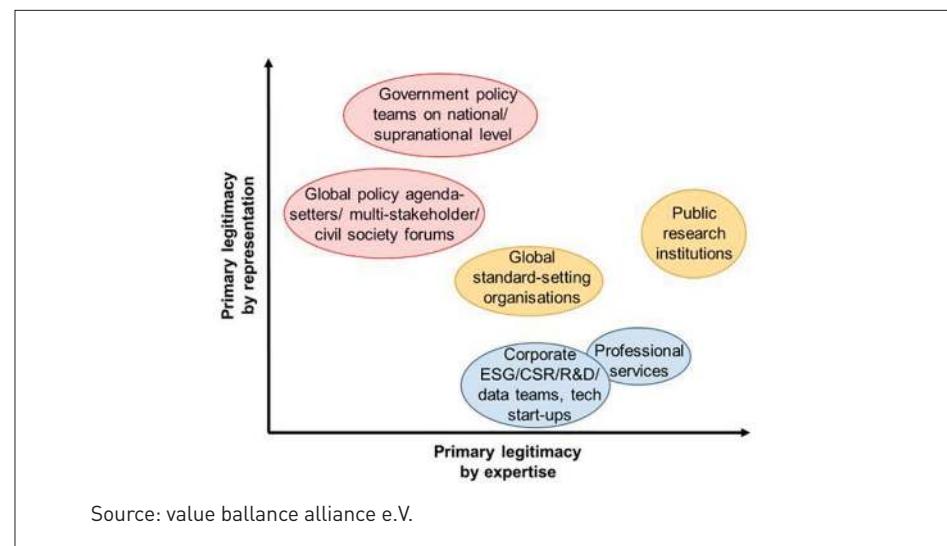
The fundamental question is not only one of technical measurability, but also one of legitimacy. This is a challenge common to all aspects of transnational governance.⁵ Which organization should set global social-environmental measurement, accounting and reporting standards in the absence of a generally recognized holder of legitimacy? Figure 2 depicts six actors in the global field of impact valuation and corporate reporting. These organizations and groups of people are not yet sufficiently connected, but they have enormous potential to complement each other. Teams and networks across formal organizational boundaries are more difficult to create and maintain, but we believe it is necessary to create legitimacy for social-environmental reporting standards. Legitimacy can be ensured by different means, which include legitimacy by procedure, representation, and expertise.⁶

The current landscape lacks connectivity between those actors whose primary legitimacy is based on representation – national governments, global policy forums – and those whose primary legitimacy emanates from expertise – standard-setters, research institutions, business teams, and

professionals. Cross-sector partnerships may be one way to overcome this challenge, but they are hard to develop and maintain.⁷ Those types of inter-organizational collaborations connect a variety of actors beyond the traditional boundaries of professions, industries, public-private or hierarchies. They enable collaborations that draw on diverse sources of expertise and build on different types of legitimacy.

»Recoupling the environment, society, and economy depends on how we understand value creation.«

Figure 2: Cross-sectoral partnerships enable the global standardization of impact valuation and corporate reporting



Thesis 1: Standardizing measurement

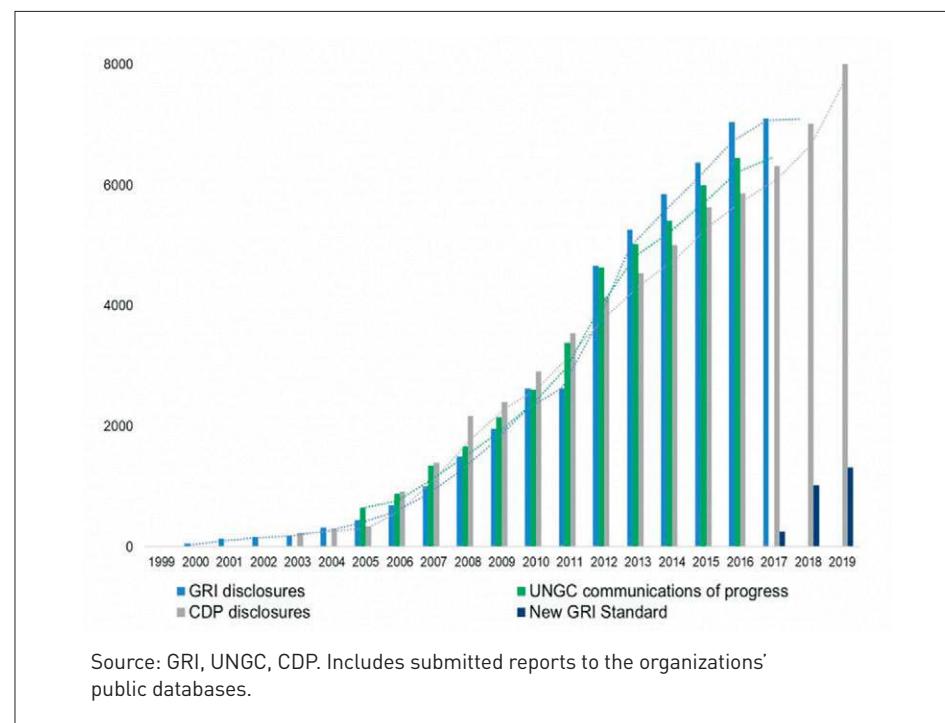
In the last twenty years, social-environmental reporting practices have increased globally. The early years saw moderate adoption reaching 1,000 reporting companies in 2007, followed by a sharp increase between 2007 and 2009 in the aftermath of the global financial crisis. Overall, the number of companies disclosing social-environmental reports significantly increased over the last two decades from less than a fifty to over 7,000 in the year 2017. We suggest that this trend will continue due to the relaunch of their standards by the pioneering Global Reporting Initia-

tive (GRI) and the rise of standards by the newer Sustainability Accounting Standards Board (SASB). The Carbon Disclosure Project (CDP) and the United Nations Global Compact (UNGC) are thematic disclosures that are integrated into the more comprehensive conceptual frameworks of standard-setters.

However, there are signs of confusion and uncertainty. The ambiguity of the standards means that there is still no “shared language” around metrics that bridge social impact and financial

performance for long-term thinking and decision-making. Until now, companies are both valued and managed based on accounting principles codified before the 1970s. The Sustainable Stock Exchanges Initiative with Johannesburg as a leader, the European Directive on Non-Financial Reporting (2014/95/EU)⁸, the European Green Deal, the EU Taxonomy, the International Integrated Reporting Council (IIRC), and the Impact Management Project (IMP) are important actors who strengthen this necessary movement for standardization.⁹

Figure 3: Information producers: number of companies adopting social-environmental reporting practices from the year 1999 to 2019

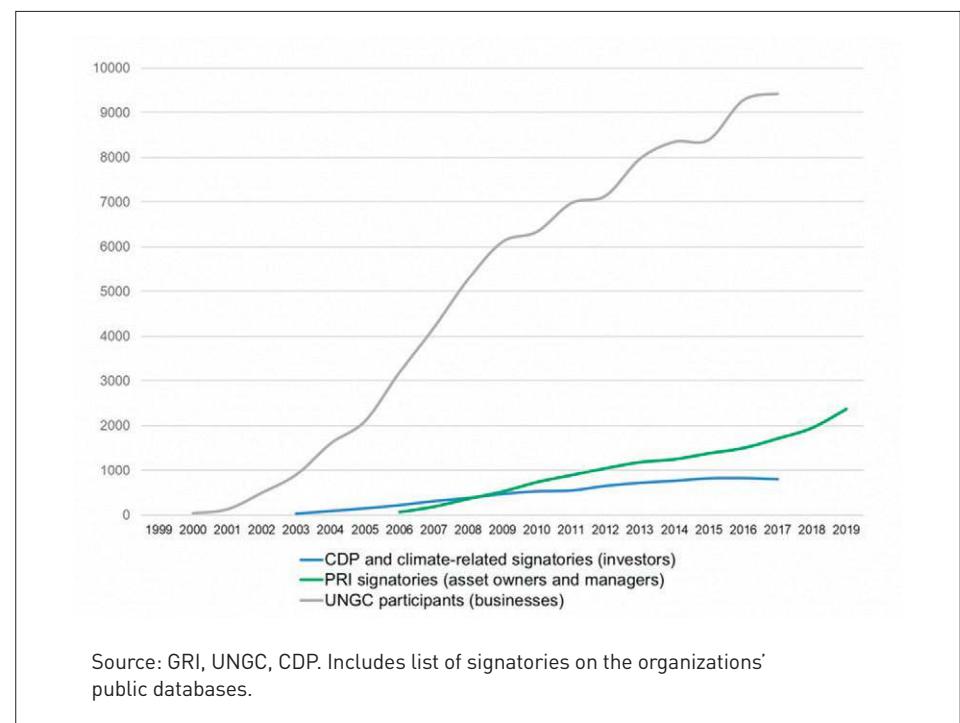


Thesis 2: Understanding purpose and causes

We maintain that it is vital to begin with an understanding of the specific purpose of a corporate entity and the positive and negative impact of its organizational activity. Increasing evidence shows a link between high sustainability performance and financial performance. This relation is more prevalent when companies focus on social and environmental factors that are most relevant to their business model, thereby outperforming markets significantly.¹⁰

Social-environmental reporting, in our view, fails when it is separated from strategy and decision-making. Firms are not producing comparable information, because materiality is essentially a judgment about which audience and perspective is prioritized.¹¹ Understanding and articulating the purpose of the corporation focuses minds on business steering.¹² Identifying the root causes of positive and negative impact are essential to building a framework that is comparable within and across sectors. An example of understanding cause-effect relations is the integrated report

Figure 4: Information users: number of business signatories to selected corporate social responsibility initiatives from the year 1999 to 2019



produced by SAP. The global enterprise software company statistically determined how metrics such as carbon emissions and employee engagement impact the operating profit of the company.¹³ While this approach allows social-environmental value to link with strategy, the obvious limitation is that each company takes a different approach in determining coefficients.

Thesis 3: Designing disclosure systems

When designing a disclosure system, it is important to balance specificity and openness simultaneously. The increase in signatories to the CDP, the Principles for Responsible Investment (PRI), and the UNGC indicate a growing demand for information by investors – asset owners and managers – and corporate leaders. The most common approach is to distinguish three dimensions – economic, environmental, and social – and, then to define key themes that categorize the different metrics. It is important to learn the lessons in the early days of environmental, social and governance (ESG) data; we need to deal with a variety of metrics, inconsistency of data, and different user perspectives. Paradoxically, companies that disclose more information than others suffer extreme variations in external ratings produced by different providers.¹⁴

Specificity is achieved by focusing on information user cases, e.g. investment or procurement decisions. One indicator of the increasing demand among executives, asset managers, and asset owners are the initiatives they sign up for. The openness of disclosure systems is achieved when the information is accessible to scrutiny by the users. This means that the assumptions behind a certain reported number should be disclosed so that the users of this in-

formation can make sense of the data, and readjust it to their needs. Impact valuation would quantify the impacts on society, customers, employees, and the environment. This type of “prefinancial” information is translated into monetary units which, in turn, can be integrated into financial statements.

>The challenging part is not only to measure negative and positive impacts, but to express them in decision-useful ways.<

Thesis 4: Developing management systems

If a company is serious about its purpose, social-environmental information needs to be deeply embedded in corporate governance.¹⁵ Surprisingly, it is unclear who reads sustainability reports which are created in corporate social responsibility, finance departments, or a charitable foundation of the company. The data generated can be used in many ways: quarterly earnings calls, financial statements, and investor briefings.¹⁶ Even Larry Fink, CEO of the world's largest

asset manager Blackrock, has spoken out more strongly in favor of comparable disclosure, especially regarding climate risk.¹⁷

Traditional reporting is concerned with the resources that companies use (e.g. raw materials) and the activities (e.g. emissions from their production facilities). While those are necessary data, they are not sufficient to make informed business decisions about investment or procurement. The next step is to account for the impacts of those organizational activities. The challenging part is not only to measure negative and positive impacts, but also to express them in decision-useful ways. The methodology to do this – impact valuation – shifts the dial from mere reporting on inputs and outputs to evaluating impacts. This requires a monetizable model that links social-environmental metrics to co-efficients and, in turn, expressing im-

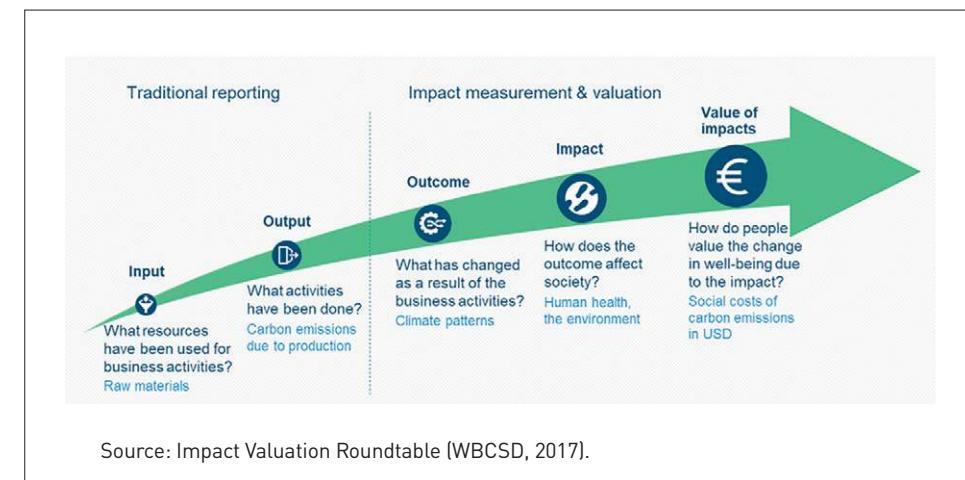
pacts in financial terms for business decision-making and steering.

Thesis 5: Scaling impact valuation and corporate reporting standards

Impact measurement becomes scalable if it is “actionable and cost-effective”.¹⁸ One example of disclosures that scaled very quickly are the Recommendations of the Taskforce on Climate-related Financial Disclosures (TCFD). While they are not directly aimed at impact valuation, they show that business steering and corporate reporting are very much intertwined. Within four years, the adoption of TCFD has been almost doubling every year and is expected to significantly grow over 2020.

This scalability is due to three main reasons. First, TCFD are responding to the specific, pressing need to address climate change as a systemic risk for financial

Figure 5: Impact measurement and valuation can inform business steering more effectively because it moves beyond data on inputs and outputs



Source: Impact Valuation Roundtable (WBCSD, 2017).

markets. Secondly, the disclosures focus on business decision-making in terms of processes, risks, and scenarios. Third, the TCFD is based on a concerted effort between national financial regulators, international organizations, standard-setters, and private initiatives, embedded within the major social-environmental reporting and other initiatives (GRI, SASB, IIRC, CDP, PRI). However, there is a fundamental limitation: without impact valuation and consensus about the measurements, decision-makers are left without clear and comparable ways of evaluating decision options.

The development of impact-weighted financial accounts is a viable approach but it requires legitimacy by expertise and representation to scale up and deep. One

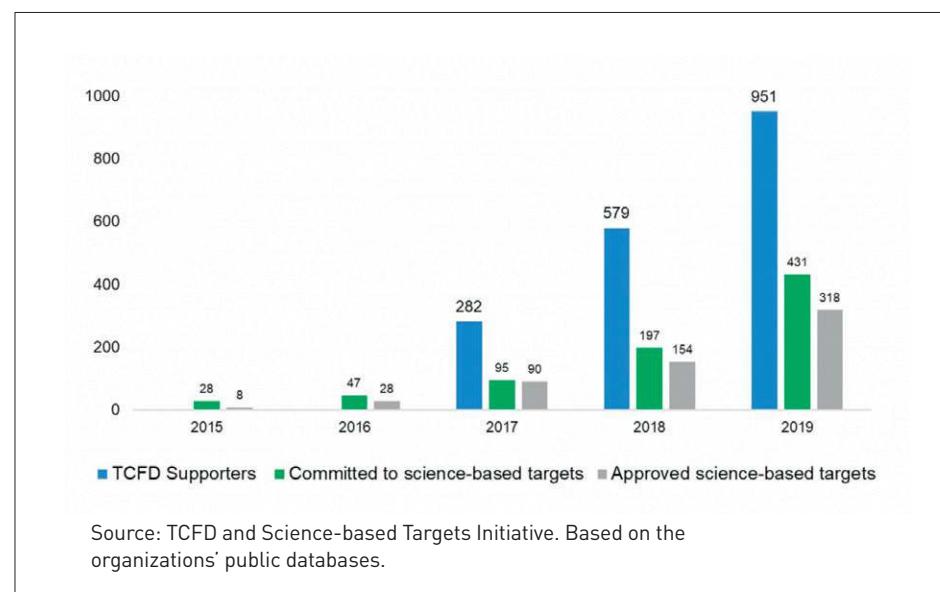
prime example for a cross-sector partnership is the value balancing alliance (VBA). The VBA was founded in 2019 and represents several large international companies, including BASF SE, Deutsche Bank AG, LafargeHolcim Ltd, Novartis International AG, Robert Bosch GmbH, SAP SE, SK Holdings, Mitsubishi Chemical Holdings and Porsche AG. The alliance is supported by the four largest professional services networks – Deloitte, EY, KPMG, PwC – as well as by the OECD and the World Bank as advisors, and academics from leading academic institutions such as the University of Oxford and Harvard University. The alliance will play a key role in developing a green accounting standard for the European Union.

CONCLUSION: TOWARDS CROSS-SECTOR PARTNERSHIPS WITH THE G20 FOR A GLOBAL STANDARD

In this article, we recalled the risk of self-indulgence in a fragmented landscape where social-environmental reporting is disconnected from decision-making. We formulated five theses against self-indulgence and for decision-making, and pinned them firmly on the global policy agenda. Finally, we make two recommendations to the global policy community: first, setting a global standard must be based on the core principles of value balancing: simplicity, transferability, comprehensiveness and scalability. Second, the global standard-setting process requires legitimacy by representation and expertise which is achieved through cross-

sector partnerships. The value balancing alliance is a prime example for a cross-sector partnership that will play a key role in creating a green accounting standard in Europe. We can achieve the SDGs if we create together a global standard for impact measurement and valuation that will allow decision-makers to steer their businesses towards a just transition: environmental protection, low-carbon economy, sustainable economic growth, and social cohesion. There could not be a more appropriate time and place for the renaissance of purposeful business than in the birthplace of modern accounting – Italy in 2021. When it comes to sustainable business steering it is high time to turn the current reporting confusion into a global solution.

Figure 6: Climate disclosures: number of companies adopting disclosures on risks, scenarios and processes from the year 2015 to 2019



- ¹ Weber, M. (1905:2001). *The Protestant ethic and the spirit of capitalism*, translater by Parsons T., Routledge Classics, London.
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Toward “effective multilateralism” in turbulent times

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Growing social cleavages with dramatic inequality and growing nationalist reaction after several decades of globalization are threatening the post-World War II global order. Multilateralism and international cooperation have faded as vehicles for global action in the public interest. As we argued in ‘New Narratives’ (2018): ... “global inter-connectedness is also proving too much for many citizens and countries to accept as legitimate. In many countries, angry citizens feel a sense of loss. They see both globalization and global rules as threats to democracy and social well-being.” The specter of intensifying rivalry between the United States and China is now clearly capable of eroding the very foundations of the global economic order.

»**China is now a vital threat to the United States both economically and strategically.«**

Highly notable in the present political circumstances is the turn in attitude and action especially by Washington toward China. There appears to be a rising tenor of threat, a growing competition and rivalry, and a sense even of a ‘new Cold War’ between these two great economic and geopolitical

players. The growing apparent consensus in Washington on the need to abandon ‘the era of engagement’ and accept ‘strategic competition’ between these two great powers, and to acknowledge the failure of several decades of US engagement, has become ever more vivid¹. The author and CNN host Fareed Zakaria pointedly described this apparent Washington consensus in 2019 in an article in Foreign Affairs:

A new consensus, encompassing both parties, the military establishment, and key elements of the media, holds that China is now a vital threat to the United States both economically and strategically, that U.S. policy toward China has failed, and that Washington needs a new, much tougher strategy to contain it. This consensus has shifted the public’s stance toward an almost instinctive hostility: according to polling, 60 percent of Americans now have an unfavorable view of the People’s Republic, a record high since the Pew Research Center began asking the question in 2005. But Washington elites have made their case ‘clearer than truth.’²

There is an urgent need now for an alternative framework to the ‘end of engagement’ view. We have initiated a China-West Dialogue (CWD) as a means of developing innovative ideas for a fresh public discourse for global governance based on an alternative framework for China-West relations. The China-West Dialogue is based on three principles: (i) participation of Chinese colleagues and incorporation of China perspectives in our work so that it is a joint dialogue and not a Western dialogue about China; (ii) inclusion of European and Canadian colleagues and perspectives to pluralize the dialogue beyond an exclusive focus on US-China relations; and (iii) an

explicit effort to include perspectives and participation from non-Western countries and developing economies whose citizens have a vital stake in the evolution of West-China relations.

»The post-war liberal international order is being superseded by a fractured, fragmented and conflictive global disorder.«

The China-West Dialogue was formed at a meeting in April 2019 of eleven founding members from China, Europe, North America and Chile, organized by the principals of VISION20 (V20). The China-West Dialogue (CWD) was founded a year ago based on deep concerns about the growing adversarial relationship between the US and China and the need to think beyond the current moment to what alternative frameworks for that relationship might look like over the course of the 2020s. The group of experts from Europe, Canada, China, Chile and the United States who participated in

the BU-CWD Workshop concluded that the framing the US-China relationship within a broader framework of China-West relations would be more likely to render rebalancing based on more diverse views in the mix with strong participation especially of Europe and Canada than an exclusive focus on the toxic China-US relationship. See www.bu.edu/gdp for more details.

Our project is determined to highlight engagement and the collective efforts that can be addressed at the G20 and other multilateral settings around a broad set of global challenges and issues – among others, trade, global financial governance, data flows and privacy, social inclusion, and the threat of climate change – based on a new narrative for global governance.

Thus, we are determined to engage experts in an effort to push back on those actions likely to undermine interconnectedness and economic prosperity. Social upheaval in countries across the globe, and the rise of nationalist populism have demonstrated that the strict neo-liberal market economy has failed to deliver social outcomes that are politically sustainable. This economic failure in democratic countries has generated a political crisis of legitimacy.

The social fallout from an over-reliance on market forces to achieve social progress is evident around the globe. The fear in the West has been that a strong role for the state in the economy would be both economically inefficient and politically dangerous. This bald choice between market economies and state-led economies has polarized debate and paralyzed policymaking. It is also now mirrored in the geopolitical tensions between democracies and authoritarian regimes, most specifically in

China-West relations. These forces challenge both the legitimacy of governments and the foundations of the global order. Without a shift in discourses, the world could be on the way to a bipolar ideological competition between opposing models and narratives between East and West.

These political and economic forces raise the institutional question of whether domestic political processes can be reformed or created so they can mediate between opposing perspectives and embrace contradictions that could lead to combined elements that actually move societies forward by a blending of opposites. Resisting simplistic choices between markets alone, or state-directed decisions alone is now essential. The question for domestic governance is whether sufficient political support can be generated to forge mixed approaches with varying combinations of market forces and policy interventions that can generate greater social inclusion, which in turn could ameliorate threats to the legitimacy of democratic governments. We look for a new paradigm for 21st century people-centered, mixed economies to replace the 20th century predominance of the neoliberal, profit-maximizing, market-economy model², creating more “policy space”³ for innovative policy mixes, thereby defusing polarizing ideological debates and marshalling public support for more effective policies.

The post-war liberal international order now is being superseded by a fractured, fragmented and conflictive global disorder. Part of the alteration is a consequence of the ‘America First’ policies of Donald Trump. For his entire first term as president, Trump has attacked allies, questioned the alliances constructed over

70 years and seemed curiously attracted to authoritarian leaders while praising their nationalistic politics and attacking multilateralism. There need to be alternatives to the simplistic demand by the Trump Administration to decouple the US and Chinese economies

Thomas Friedman, opinion columnist for the New York Times, reflecting in a 2019 article on the growing divide between the US and China, quoted former Treasurer Secretary Hank Paulson who argued in Singapore in 2018:

“The net result, argued Paulson, is that ‘after 40 years of integration, a surprising number of political and thought leaders on both sides advocate policies that could forcibly de-integrate the two countries.’ And if that trend continues, ‘we need to consider the possibility that the integration of global innovation ecosystems will collapse as a result of mutual efforts by the United States and China to exclude one another.’”

Somehow, ‘global governance’ is a positive detriment to cooperation in Trump’s worldview. While Trump has attended leaders’ global summits, both the G7 and the G20, he has not been a positive force. Trump challenges global governance and the multilateral cooperation that such global governance requires. Many suggest that without US global governance leadership, the G20 or other multilateral settings would not be possible. And yet we have seen various leaders step up to maintain or forge multilateral policy, and in various instances without the US.

As emphasized in the Vision20’s most recent Blue Report (2019) on “Effective Multilateralism”:

“But we are not blind to the current trend of disruptive politics, including in

the U.S. with the current administration's bilateral and unilateral 'America First' politics. Such policies and behavior by this American administration makes collective G20 leadership difficult, if not impossible.

Should we then 'throw up our hands' and dismiss the prospects for multilateral leadership? We do not believe that is required. In describing the way forward, we have in various ways urged G20 leaders to exercise 'effective multilateralism,' defined as selective, targeted, and purposeful actions with varied coalitions. We believe encouraging effective multilateralism is a vital tool in meeting the challenges the G20 and the international system face."

While effective multilateralism needs to operate at the state level, there is a far wider set of actors, including foundations and other private and public corporations, who can participate in meeting the challenges of global governance. These actors can engage sub-state actors such as cities, regions, and provinces. Collectively, this variety of communities increases the number of actors and enables these actors to press for more collective and effective action.

At the G20 level, Japan has succeeded in stepping in with others to successfully conclude the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), even though the new US administration had pulled out of the trade relationship. This is an example of effective multilateralism in action. We also saw effective multilateralism in action in the efforts of the G19 – the G20 without the United States. In Hamburg at the G20 in 2017, and even as the new US administration took steps to withdraw from the Paris Agreement on climate change, the

G19 remained firm in their commitment to achieving the needed carbon emission reductions. As the 19, the G20 Declaration confirmed: "We reaffirm our strong commitment to the Paris Agreement, moving swiftly towards its full implementation in accordance with the principle of common but differentiated responsibilities and respective capabilities ..."

»Encouraging effective multilateralism is a vital tool in meeting the challenges the G20 and the international system face.«

We are watching effective multilateralism in action today through the efforts of G7 foreign ministers to conclude "a cyber space strategy to protect their political systems from internet attacks and manipulation of social media by foreign powers such as Russia and China, and to provide a framework for sanctions and public exposure of offenders."

And we saw effective multilateralism in San Francisco at the Global Climate Action Summit (GCAS) on September 12-14, 2018.

This summit was a notable event called by California's Governor Jerry Brown and former New York Mayor Michael Bloomberg. Attendees included many sub-state actors from provinces and states, municipalities and regions (some 6,000) and many non-state actors including foundations, activists and private corporations (some 2,000). These actors were intent on promoting efforts and commitments to reduce carbon emissions at something other than the national government level, especially in the face of the Trump administration's determination to withdraw from the Paris Agreement.

But continuing effort is required. We can see that even with the growing threat of rising carbon emissions, states were unable to reach agreement at COP25 in Madrid in December 2019 on rules for carbon emission tax regimes.

From the Vision20 perspective, the G20 Leaders' Summit is a key platform for meeting the challenges of global governance and for advancing views on how the G20 can act in ways that will propel collaboration and repair globalization. For that, the re-framing of China-West relations is absolutely crucial. Our hope is that the China-West Dialogue can provide innovative foundations for a new global order for addressing global issues that more fully includes China, based on a fresh approach from the West.

For that to happen, the China-West Dialogue initiative seeks to provide opportunities for European and North American China experts to interact and exchange perspectives, and to put China experts from China and the North Atlantic in touch

with US foreign policy and national security experts to discuss the competition-cooperation balance in its political dimensions. We are strongly of the view that one means of pushing back on the strategic competition thesis is to ensure that this not just a US-China framing, but that it also includes Europe as a major actor, and in the near future Japan, Canada and other strategic actors such as Korea and the individual European countries.

By 2015, as veteran G20 watchers and participants in annual G20 engagement group meetings, Alan Alexandroff, Colin Bradford and Yves Tiberghien had converged on a critique of leaders of G20 countries for being too technical, for having short-term outlooks rather than a longer-term vision, and for talking over the heads of G20 publics rather than to them. As a result, they formed a new G20 engagement group, Vision20 (V20), which advocated greater political leadership, long-term visioning of the future and stronger connection with the concerns of ordinary people.

Since 2015, as Vision20 (V20) principals, they have organized a major V20 conference during the China G20 Year in Hangzhou in 2016 and three V20-Brookings seminars, one on labor issues for the German G20 Year in Washington in 2017, another on social cohesion in 2018 and a subsequent V20-Brookings seminar on "after neo-liberalism" in 2019, as well as holding a V20 session in Buenos Aires on "visioning the future" at the Think20 (T20) Argentine Summit in September of 2019.

Reports from these events can be found at: <https://www.thevision20.org/>.

Realizing opportunities of the 21st century for all

The Saudi Presidency's vision and priorities for the G20 in 2020

The author:



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Minister of State and G20
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¹ See, Campbell and Sullivan (2019).

² Different forms of mixed economies are elucidated most recently in Branko Milanovic (2019), Capitalism Alone, and in the January/February issues of Foreign Affairs on "The Future of Capitalism".

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The Kingdom of Saudi Arabia is assuming the Presidency of the G20 at a challenging moment for the world. We are aware of the responsibility placed on our country, and we believe we can make a positive contribution through the G20 to the common good of people and the planet.

On the economic front, global growth is projected to stabilize in 2020 and even accelerate modestly in 2021. It remains at one of its lowest levels since the global financial crisis. Trade tensions, financial vulnerabilities, market volatility, environmental and geopolitical strains cast a shadow of economic uncertainty on this modest improvement. In particular, growth remains disappointingly low in many countries, stifling the prospects of millions of people.

There has never been a period in history without strains, tensions, and conflict. However, what makes this moment more complex is the risk that, just as global challenges are becoming more pressing, requiring full trust and cooperation to address them, the willingness and ability of the international community to undertake

The institution:



The Group of Twenty, or the G20, is the premier forum for international economic cooperation. The G20 brings together the leaders of both developed and developing countries from every continent. Collectively, G20 members represent around 80% of the world's economic output, two-thirds of global population and three-quarters of international trade. Throughout the year, representatives from G20 countries gather to discuss financial and socioeconomic issues.

necessary collective action requires more collective global cooperation.

Fortunately, this year we are not starting from scratch. Through international cooperation, we have made significant achievements, on which we should continue to build.

- The last three decades have witnessed the fastest decrease in extreme poverty ever seen. The UN Millennium Development Goal of halving the number of people in extreme poverty was met well ahead of the target date.

- The benefits of scientific and technological progress are spread ever more widely, resulting in improvements across almost all human development indicators, allowing human beings to be healthier, more productive, better informed, and more connected.

- Collective awareness of the challenges to our environment and to the sustainability of the planet is rising, paving the way for governments, industry leaders, and individuals to mobilize and take action.

At the same time, mankind is collectively facing major challenges.

- Economic growth continues to be suboptimal and its benefits are not spread equally among countries and people. Big gaps persist between rich and poor, the educated and the less educated, and urban and rural areas. Women remain disadvantaged in the labor market.

- Digital technology is transforming the world but its benefits to productivity and living standards are not felt by all. Moreover, digitalization raises deeper questions about the functioning of our economic and political institutions.

- Environmental degradation caused by the overexploitation of the planet's natural

resources undermines economic progress and affects poor communities the most. In particular, climate change will impact disproportionately the most vulnerable, whose livelihoods depend directly on the ecosystems they live in.

All these challenges risk creating a backlash against multilateralism and weakening international fora, at a time when the world needs collaborative solutions the most.

»The willingness and ability of the international community to undertake necessary collective action requires more global cooperation.«

OUR VISION FOR THE G20 IN 2020

The Group of 20's initial focus was on addressing the global financial crisis and placing the world on the path to recovery. With time, the G20 developed a broader agenda, addressing socio-economic issues such as monitoring the global risks,

fostering reforms to lift economic growth, promoting financial inclusion, preserving the environment, and tackling emerging issues, such as debt in low-income countries.

There is a growing awareness that to achieve the overarching G20 goal of "strong, sustainable, balanced and inclusive growth" requires raising our collective ambitions and strengthening actions. Not only do we need to maintain the momentum of international cooperation, but also to add a fresh and powerful impetus to it. The G20 has a unique occasion to fulfill this: it sets global agendas and global norms; it brings together political leaders, experts, and civil society representatives. It has economic and political clout at the global and national level. The vision of the Kingdom of Saudi Arabia as it takes over the Presidency of the G20 in 2020 is to provide a new impetus to global cooperation around the unifying theme of "Realizing Opportunities of the 21st Century for All".

While G20 countries have different national priorities, social conditions, and economic circumstances; all countries share a strategic interest in seizing the opportunities and tackling the challenges of the 21st century to protect the global commons and improve prospects for all, especially women and youth.

This theme has a special resonance in the Kingdom of Saudi Arabia as it stands at the crossroads of three continents. The Kingdom has one of the youngest populations among G20 countries and is undertaking a major social and economic transformation under the Saudi Vision 2030, which is aligned with the G20 objectives. This means that the G20 agenda has a strong echo in the daily lives of the people in the Kingdom.

THE SAUDI PRESIDENCY'S AGENDA

We envision achieving the Saudi Presidency's overarching theme of Realizing Opportunities of the 21st Century for All through three aims:

The first aim is "Empowering People" by unleashing opportunities for all. We in the G20 have a collective responsibility to our people to ensure that everyone benefits from economic growth and innovation. The G20 will focus on policies that promote more equality of opportunity for all, and especially for women and youth.

This includes efforts to create high quality jobs and adapt to the changing patterns of work resulting from technological progress while ensuring social protection remains adaptable to these changes. The Saudi Presidency will focus on the employment challenges facing youth, especially youth at risk of not being in employment, education, or training (NEET), as well as those facing women of all ages. For the latter, the Saudi Presidency is strongly committed to keeping up the momentum built under previous G20 presidencies. We are planning on making further progress toward empowering women and girls through a cross-lens approach to the G20 workstreams; and promoting gender equality through launching the Empowerment and Progression of Women's Economic Representation (EMPOWER) initiative, along with our partners Canada, Japan and Italy.

Empowering People also requires scaling up efforts for sustainable development. Following up on the G20 commitment to the timely implementation of the 2030 Agenda for Sustainable Development reaffirmed at the Osaka Summit, the Saudi Presidency will focus on accelerating the implementa-

tion of this agenda and facilitating employment growth. The G20 will address ensuring finance for sustainable development, expediting the flow of goods and services, reducing inequalities between the very poor and the very rich and improving communication between people.

Last but not least, trade and investment are key drivers of growth, innovation, and job creation. During 2020, G20 members will be encouraged to strengthen their efforts to promote cross-border trade and investment flows and engage in constructive dialogue on current international trade developments. In this regard, the necessary reforms to improve the WTO's functions should also take into account the developmental dimension.

The second aim is "Safeguarding the Planet" by fostering collective efforts to protect our commons. Climate change is one of the most pressing challenges of the 21st century. The Saudi Presidency will seek to advance efforts for managing emissions and for improving synergies between adaptation and mitigation actions, including nature-based solutions, such as combating land degradation and habitat loss, and protecting marine resources.

Access to cleaner, more sustainable and affordable energy is fundamental not only for mitigating climate change but also for reducing poverty and promoting growth. Under the Saudi Presidency, the G20 will discuss the concept of a circular carbon economy, in which emissions are to be not only reduced but also reused, recycled, or removed altogether. The group will also discuss options to use a variety of energy solutions and technologies to promote cleaner and more sustainable energy systems and affordable energy access.

Water stress is one of the greatest challenges of the 21st century, aggravated by population growth, urbanization, and an aging water infrastructure. Saudi Arabia is in one of the regions of the world where water stress is particularly acute. A priority for the Saudi Presidency is to foster global cooperation on water management and try to tackle policy, financing, and innovation challenges to ensure water security for all.

The third aim of the Saudi Presidency is "Shaping New Frontiers" by adopting long-term, bold strategies to utilize and share the benefits of innovation.

Advances in digital technology are transforming the global economy and impacting people, markets, and governments. Despite the benefits of these advances, they challenge labor markets, business models, and economic, social and political institutions. Business models in the financial industry are challenged by rapid innovation in financial services and informatics, including the entry of big technology firms. The G20 will continue to address these challenges in 2020, exploring their implications for future labor skills and income inequalities; striving for a global consensus to address the tax challenges arising from digitalization. We will be working toward a regulatory framework – in finance and elsewhere – that can facilitate a level-playing field between incumbents and new entrants. The group will also address concerns about data protection and manage potential cyber risks to financial and economic stability.

With rapid urbanization, cities are caught between growing populations and aging infrastructure. New technologies can help accommodate the expanding

urban population while providing mobility solutions accessible to all. The Saudi Presidency will lead the exploration of practical solutions, notably for smart urban mobility, based on better infrastructure, good practices and the sharing of experiences.

»All countries share a strategic interest in seizing the opportunities and tackling the challenges of the 21st century.«

OUR APPROACH

The Saudi Presidency's approach, both in developing our Presidency Agenda and in pursuing its implementation during 2020, is consistent with the Kingdom's aspiration to provide a fresh and powerful impetus to global cooperation.

The Saudi Presidency Agenda was deliberately developed in the most inclusive and comprehensive way possible. We adopted an open approach, had multiple outreach events to consult with domestic, regional, and international partners, and built on previous G20 work.

In pursuing the three aims of the 2020 G20 agenda, by leading the G20 international dialogue, we will continue to strive for the broadest consensus. In this respect, Saudi Arabia will host over 120 meetings and conferences, including meetings between officials and relevant partners from civil society, businesses, and think tanks.

To further ensure an inclusive process, the Saudi G20 Presidency has invited some non-G20 countries and regional organizations, with strong representation from the developing world. With the participation of the invited countries, the G20 this year will represent over 90 percent of the world GDP and more than two-thirds of the world population. The major international and regional organizations were also invited to bring their knowledge and expertise to the discussion.

Finally, we are paying special attention to civil society, which is more vibrant and influential than ever. This year, eight engagement groups will participate in the G20 process: Business 20, Youth 20, Labour 20, Think 20, Civil 20, Women 20, Science 20, and Urban 20. They all have their own meetings and will also participate in many G20 meetings to provide input to the discussions and deliberations from their perspectives.

Multilateralism is not an end in itself but a means to an end. It is the best way to leverage the opportunities created by our achievements so far and ensure that their benefits are spread to all. This is the only way to address the global challenges we are facing. G20 leaders were convened in the aftermath of the global financial crisis to mitigate its impact and remedy its causes, because these tasks required broad cooperation and strong political drive. It is

the same today: the global challenges and opportunities facing us require the broadest possible cooperation, consensus and

commitment. The G20 is the best platform for realizing opportunities of the 21st century for all.

The WTO needs a Plan B

If the WTO members do not reinvent the WTO, the world will return to less prosperous times.

The author:



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The Kiel Institute for the World Economy is an international center for research in global economic affairs, economic policy consulting, and economic education. The Institute engages especially in creating solutions to urgent problems in global economic affairs. It advises decision makers in policy, business, and society and informs the broader public about important developments in international economic policy.

The World Trade Organization (WTO) has brought enormous benefits to the international community. In small, open economies, such as the Netherlands, around a quarter of the wealth per capita depends on the WTO trading system; in Germany, the figure is around five percent or USD 66 billion. The economic gains for China or the US are even bigger in absolute terms.¹ But the multilateral trading order is in a deep, existential crisis – to which there is no easy solution. The WTO must reinvent itself if it wants to prevent the world from returning to less prosperous times.

On April 15, 1994, when the GATT members agreed on the Marrakesh Declaration that led to the creation of the WTO, there was a shared vision of the future geopolitical landscape. Following the demise of Soviet-style communism, it was generally assumed that all countries would gradually transition to a democratic, market-based system. The only remaining superpower, the United States, would create a liberal world order in its own image.

The post-war systemic rivalry between East and West would become a thing of the past. The international economic order would no longer be disrupted by geopol-

litical fault lines as the economic and humanitarian systems of the various political actors converged. Unfortunately, that hope has failed to materialize – as is now abundantly clear from the current rivalry between “Western” democratic market capitalism and the autocratic state capitalism of some emerging economies, notably China.

»The WTO must reinvent itself if it wants to prevent the world from returning to less prosperous times.«

This is the fundamental problem facing the WTO. Currently, the organization has 164 member states, ranging from the extremely poor to the extremely rich, from some of the world’s most appalling autocracies to model democracies, and from illiberal, closed economies, such as Venezuela, to very liberal ones, like Singapore. And even if countries have very similar institutional structures, they may pursue quite different interests within the WTO.

The WTO is an entirely member-driven body, with each member having an equal right of veto, except in the proceedings of

the now defunct Appellate Body. Given the enormous diversity of its members and systemic competition between major nations, such as the US and China, it is very difficult for the WTO to agree on a common set of rules. There are widely differing views on key economic matters, for example, including the legitimacy of state subsidies and the issue of monopoly power.

This political divergence within the WTO has been accompanied by a convergence of economic power. The GDP of the G7 countries as a percentage of global GDP has declined from almost 65 percent in the early 1990s to less than 40 percent today. The economic rise of the non-G7 countries has been driven in part by the integration of former low-wage countries into the global value chain. However, this economic convergence has not led to the hoped-for political convergence.

The motivation for liberalizing world trade has always been to promote economic convergence. That objective has been achieved. Some of the greatest beneficiaries of the WTO’s multilateral system have been countries that formerly have been relatively poor. The fact that China has been particularly successful without having copied the Western democratic, free-market model is a cause of widespread concern.

The United States, and probably also many European countries, would never have agreed to China’s accession had they known that, just a quarter of a century later, China would overtake them economically – using a radically different and opposing social model. China stopped aligning its economy with the Western model following the global economic and financial crisis of 2009, if not before, making the incompat-

ibilities between Chinese state capitalism and the Western economic model increasingly obvious. The situation has been further exacerbated in recent years as China seeks to export its own model through the Belt and Road Initiative. It is thus hardly surprising that the United States has been gradually abandoning the role it assumed back in the 1990s as the driving force behind a more liberal world trade system.

Political differences and increasing economic parity are not an issue in themselves. However, they do become a barrier when trust breaks down between key actors and each suspects the other of opportunistic behavior. Trust doesn’t appear to have been an issue when China was originally admitted to the WTO in November 2001. Since then, it has declined significantly, though.

The World Trade Organization was developed for a world with no major geostrategic rivalries. The basic premise of the WTO (and of its predecessor, the GATT) was that the sole objective of economic policy should be to increase per capita income. This universal focus leads to a simple logic: whenever liberalization of international trade results in higher per capita income, it should be welcomed. Under this model, all countries benefit from an increasing division of labor, although some trading partners benefit more than others. There has to be considerable trust for this positive-sum logic to work. Every trading partner must be sure that their dependence on foreign import and export markets will not be exploited by others. The larger the trading partner relative to one’s own economy, the greater the threat.

A high level of trust between actors makes it easier for them to view per capita

income as the main or only political objective in multilateral negotiations. The lower the level of trust, the more the actors will try to erode the relative economic power of their opponents – even if that means weakening their own economy somewhat in the process.

When policymakers no longer focus exclusively on per capita income, but also and possibly even primarily on the size of their own economy relative to their systemic competitors, the world switches from a positive-sum game to a zero-sum game. Actors are more concerned with the distribution of existing economic and political power than with creating and sharing new wealth. In such a world, the WTO’s textbook model is doomed. The principles of reciprocity and non-discrimination that have been so successful are no longer powerful enough to secure the benefits of cooperation. In the battle for economic power, the weapons deployed include tariffs, exchange rates, and international investment.

Many of the current tensions and developments in economic policy are due to the reemergence of systemic competition. Trading partners frequently adopt a mercantilist position, choosing policies that reflect their trade balance with a given rival. John Maynard Keynes, the intellectual godfather of the failed post-WWII International Trade Organization, was aware of this problem and advocated mechanisms to ensure balanced bilateral trade. The WTO (quite rightly) has no such rules for bilateral trade balances, as they do nothing to promote the shared prosperity generated by international trade relations in a positive-sum model.

Faced with systemic competition, it is also natural for policymakers to focus on

the manufacturing industry. Under the original cooperative logic behind the WTO, it should not matter which sectors a country specializes in. If a decline in industrial output is more than offset by growth in the service sector, this should be understood and accepted as a net increase in the prosperity of that country. However, if countries don't trust their trading partners to behave in a cooperative manner, it suddenly becomes important to be self-sufficient in key sectors.

Another consequence of the WTO crisis is the increase in bilateral preferential agreements. It is probably no coincidence that this increase was particularly marked at the turn of the millennium, when it became clear that the assumptions underpinning the WTO's multilateral system were no longer tenable. In the zero-sum model, where the only imperative is to strengthen one's own economy, bilateral agreements are even more attractive—especially for economies with large domestic markets, such as the United States, the EU, and China.

The current crisis of the multilateral system is therefore not only a product of the new economic nationalism espoused by leaders, such as Donald Trump, Xi Jinping, Vladimir Putin, and Narendra Modi. In fact, it was the dysfunctional nature of the WTO that enabled the new right-wing nationalist movements. It is also clear, however, that this aggressive economic nationalism is undermining confidence in multilateral agreements and further paralyzing the WTO. This in turn deprives the international community of a forum for discussion and for settling disputes.

The multilateral system has brought huge economic benefits to virtually every

country on earth. Abandoning it now would make the world poorer and raise pressing questions about the distribution of existing wealth. The challenge is therefore to adapt the WTO's rules to reflect the current, more complex political and economic realities.

In seeking to break this impasse, it is important to understand that the WTO was conceived during a brief but exceptional period in history when nationalism appeared to have been transcended. Today, we can only assume that the struggle between competing political systems for economic supremacy will continue.

Given that the economic systems of key players, such as China and the United States, are unlikely to converge in the foreseeable future, and that it will be difficult to restore lost confidence, the WTO should take the steps set out below in order to stay relevant.

One immediate threat to the credibility of the WTO is the ongoing US veto on the appointment of new judges to the WTO's Appellate Body. As a matter of the highest priority, the WTO must reform its arbitration process so it can continue to function and should simply dispense with an appeal body. This is not unusual in other dispute resolution systems and has been the case for many years in investor-state dispute settlement. Countries that want an appeals mechanism would have to find an alternative outside the WTO. The EU already has an interim appeal arbitration arrangement with Canada, and other country pairs could do the same or adopt the systems used by other nations.

In addition, the WTO should mitigate against the risk of its own collapse by preparing a "Plan B," i.e., a legal system

to replace the WTO in a worst-case scenario. Former WTO Director General and EU Trade Commissioner Pascal Lamy has suggested such a move, which would put pressure on the US to be more constructive in seeking solutions and accepting reforms rather than paralyzing the entire system. That said, it will probably not be enough to regain US support, as there is still too much concern about the rise of China. The WTO should accordingly also address the systemic differences between member states.

»The challenge is to adapt the WTO's rules to reflect the current complex political and economic realities.«

This could be achieved by means of a "club system." A core of democratic market economies with mutually compatible value systems could then deepen their economic integration, surrender a certain amount of

freedom with regard to their trade policy, and transfer sovereignty to joint dispute settlement bodies. Trade with countries whose economic systems are not compatible with this type of arrangement would be subject to a special set of rules similar to the pre-1995 GATT provisions, rather than those of an updated WTO.

In some respects, the WTO is already doing this, with members forming like-minded, plurilateral groups, which exclude systemic competitors. This two-pronged approach has its shortcomings, of course. It is only the second-best solution in a world of mutual distrust between trading partners. However, the primary threat is one of complete system failure – which would have much graver cost implications. The European Union should take the lead here.

Finally, the WTO should promote bilateral trade agreements between members. Although a poor substitute for a multilateral system, bilateral agreements at least offer some certainty at a time when the global trading order is being renegotiated. These bilateral arrangements need to be compatible with the multilateral solution that becomes possible when a new global order has been established.

The WTO marked its 25th anniversary on January 1, 2020. If the international community wants to celebrate the 30th anniversary of the WTO, it must face these realities and act now. What is at stake is the prosperity of the world – and perhaps even more than that.

¹ See Felbermayr et al., 2019, *The World Trade Organization at 25: Assessing the Economic Value of the Rules Based Global Trading System*, Bertelsmann Stiftung (<https://www.bertelsmann-stiftung.de/en/publications/publication/did/the-world-trade-organization-at-25/>).

The economic causes of populism

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Populism is on the rise in many industrialized countries. The reasons are manifold, but recent research reveals common trends – which turn out to be fundamentally economic. Global economic developments fostered inequalities. In turn, this spurred support of populist parties and candidates from those on the losing side of economic change. To counter this development, it is not enough to just increase welfare state transfers.

Populist parties have been active throughout Western countries for many years. But only over the last decade, have we seen a general trend of increasing support of populist parties, mainly from the right fringe of the political spectrum. This is happening against the backdrop of longer-running economic trends: the labor share in income has gradually decreased, and the demand for lower-skilled labor has declined. The result has been a rise in inequality between skill and income groups, with a distinct regional profile. Those on the losing side of this development turn to supporting populist parties with protectionist and nationalist agendas, economic research shows (see Fetzer and Gold (2019) for a comprehensive overview). Driving forces behind this are the globalization of trade, which has led to an outsourcing of low-skilled jobs to low-wage countries, and austerity policies in the

aftermath of the financial crisis, which exacerbated the perception of distributional conflicts, e.g. stemming from immigration.

»Economic growth and structural change have distributional consequences.«

MACROECONOMIC TRENDS AND VOTING BEHAVIOR

The rise of populism is taking place against the background of broader macroeconomic developments. Over the past decades, the labor share in national income has continuously declined in developed economies. Thus, income inequalities between factor owners of labor and capital have increased. Increasing income inequalities were driven by the internationalization of trade, which shifted the production of labor-intensive goods to low-wage countries, and technological change, which mainly increased capital productivity. Simultaneously, inequalities increased within the labor income group. Demand for high-skilled labor increased, while less-skilled workers suffered from job and wage losses.

It is well known that economic growth and structural change have distributional consequences. Accordingly, developed

economies have established welfare state institutions to support individuals or regions negatively affected by these developments. The idea behind this is to support an overall positive development by compensating its losers with transfer payments. However, the compensation mechanism does not seem to work this way anymore. On the one hand, this may be due to the fact that the welfare state has withdrawn in many places. On the other hand, monetary transfers alone do not seem to be sufficient to counter economic uncertainties. In any case, research shows that inequalities resulting from macroeconomic developments have substantially contributed to the success of populist parties in developed economies.

IN FOCUS: GLOBALIZATION

The economic causes of populism are comparatively well researched for the case of international trade. With the integration of poorer countries into the global economy, labor-intensive production is relocated to low-income countries. Conversely, developed countries concentrate on the production of knowledge-intensive goods and services. As a result, consumer prices fall, which has a positive impact on the general standard of living. Specialization on knowledge-intensive production may lead to turbulences on the job markets though, but regional and sectoral mobility should help the individuals affected to adjust to the new market environment.

Against this background, a study by Autor, Dorn and Hanson (2013) has had a major impact, by revealing unexpectedly high regional inequalities in the labor market responses to international trade. The study assesses how increasing trade

with China affects local labor markets in the US – and finds that imports from low-wage countries have led to significant job losses in the manufacturing sector, without offsetting job losses through gains in other industries. Low-skilled workers are particularly negatively affected. Moreover, some regions are disproportionately hit by the adverse labor market effects of international trade, while other regions may even benefit. In a follow-up study, Autor et al. (2017) show that these inequalities have led to political polarization in congressional elections and helped Donald Trump win the US presidential race in 2016.

In comparison, Germany is a beneficiary of trade integration, as Dauth, Findeisen and Südekum (2014) show. They find that increasing trade with Eastern Europe and China has created additional jobs in Germany. However, they also point to regional differences. Dippel, Gold and Heblisch (2015) study the political consequences of these differences in exposure to globalization, and find that the support of right-wing extremist and populist parties rises in regions exposed to increased import competition from low-wage countries, while it decreases in regions benefiting from new export opportunities.

These political consequences of international trade can be fully explained by trade's labor market effects, as a follow-up study by Dippel et al. (2018) shows. The populist response to international trade is driven by low-skilled voters working in manufacturing industries. Obviously, the "losers" from globalization support parties promoting a nationalist alternative to increasing internationalization, while the "winners" reject such policies at the ballot box.

Several studies on different European countries confirm that import competition from low wage countries causes populism (e.g. Malgouyres (2017); Colantone and Stanig (2018) for an overview). However, trade effects alone are not sufficient to explain the success of populist parties. In general, it is unlikely that the rise of populism can be explained by one single cause only. Still, it is evident that the regional and individual differences in exposure to globalization prepare the ground for the success of populist campaigning, as it addresses exactly such inequalities.

»It is unlikely that the rise of populism can be explained by one single cause only.«

MIGRATION AS A DOMINANT ISSUE

Inequality is a structural phenomenon that has evolved over decades. Populist parties have also been active in Europe for a long time. But only recently has populism become a European trend. A unifying element of populist parties – particularly from the right wing of the political spectrum – is their critical attitude toward migration. This became obvious in the context of the "refugee crisis". A number of studies (e.g. Dustmann et al. (2019), Dinas et al. (2018), Halla et al. (2017)) confirm that refugee in-

flow increases support for right-wing populist parties. At first glance, it seems this cannot be explained with economic reasons, given the very modest economic impacts of refugee immigration. Specifically, there are hardly any labor market effects of immigration in general – and of refugees in particular – that could explain why immigration fosters populism. Xenophobia and fear of "cultural alienation" seem to be more important for the populist response to the refugee crisis. The interrelations between economic and socio-cultural factors in explaining populism are not yet well understood, though.

Indeed, there are also economic rationales linking immigration to populism. Among other things, the incumbent population competes with immigrants for the provision of public goods. Economic models (e.g. Alesina, Baqir and Easterly (1999)) show that the greater the cultural distance between two societal groups, the less willing they are to share. And indeed, it turns out that support for redistribution measures decreases with the inflow of migrants – and that there is a connection between refugee inflow, the supply of public goods and the support for right-wing populist parties. Against this background, it is not surprising that populist parties managed to mobilize support on an anti-immigration platform throughout Europe. In the aftermath of the global financial crisis, many countries reduced the provision of public goods. Distributional conflicts between natives and immigrants were thus intensified.

BREXIT AS A CASE IN POINT

The campaign for the Brexit referendum is a textbook example of the success of pop-

ulist campaigning. With a mix of ideological arguments, selective interpretation of facts, and untruths, the protagonists of the Leave campaign were able to win support for a project that would clearly decrease welfare. Leave votes were very unequally distributed across regions. In cities and regions specialized in service industries, most voters supported staying in the EU, while Leave received the most support in agricultural regions and the old industrial centers. The latter are regions that have been particularly hard-hit by import competition and the resulting labor market frictions. Differences in the industry structures of the Leave and Remain regions are also reflected in the differences in skill structures of the local populations. In fact, there is a clear, statistically significant correlation between the regional share of low-skilled workers and voting for Brexit.

Against this background, Fetzer (2019) shows that the UK government's austerity policies increased the voting share for leaving the European Union by around 10 percentage points, on average. Welfare cuts disproportionately hit those individuals and regions that had experienced rapid structural transformation. Accordingly, supporting Leave clearly reflected a vote from the "left-behind".

Again, the economic context may explain this political backlash. Since the 1960s, the labor share in the UK's national income has continuously declined. Along that line, the inequality in income distribution between high- and low-skilled individuals has steadily increased. Rising income inequality has been accompanied by regional inequality, as high-skilled workers and earners of capital income – i.e. the main beneficiaries of globalization and

technological change – tend to cluster in urban regions. Thus, the reduction in public spending not only affected individual recipients of transfer payments, but the development prospects of entire regions. The Leave campaign successfully addressed the distributional conflicts resulting from these inequalities, e.g. by polemicizing against Eastern European immigrants – although the labor market perspectives of UK workers are hardly affected by Eastern European immigration, as Becker and Fetzer (2018) show.

»Monetary assistance must be accompanied by active labor market policies and qualification measures.«

DOES IT HAVE TO BE LIKE THIS?

The success of populist parties in Western economies is caused by several economic factors. Global economic developments have increased inequalities between income and skill groups. The "losers" of this development have been particularly hit by a series of adverse economic shocks. Instead of countering this development with welfare state measures, austerity policies

have further increased distributional conflicts. However, this does not necessarily explain the rise of populism. Economic factors can well explain why voters turn away from incumbent parties. But why do the "losers" of globalization select into the populist camp?

In fact, populist parties are very successful in their campaigning strategies. They mix facts with fiction to provide a – superficially – coherent picture of socio-economic developments that disadvantage their electorate, linking economic grievances to social and cultural developments. In this way, populists provide a justification for otherwise unspecified fears and anxieties, which makes them an attractive political alternative for the "losers" of globalization. Thus populist voting has economic causes, but is further boosted by socio-cultural developments.

From an economic point of view, the rise of populism is critical because the policies propagated by populists have protectionist tendencies – thus having all the potential to decrease aggregate welfare, if enacted. To counter this development, policy has to tackle the economic causes of populism. Merely increasing transfer payments will not be enough, however. Monetary assistance must be accompanied by active labor market policies and qualification measures. Regional policy must generate development perspectives for deprived regions. Above all, populist rhetoric must be countered by facts and figures in order to provide voters with reliable information about advantages and disadvantages of economic change. Well-informed voters will be less inclined to support policies that harm themselves in the long run. Bringing that message across in an

increasingly polarized political debate is the challenge for policy makers oriented toward increasing general welfare.

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¹ The original version of the article can be found under the following link: <https://makronom.de/die-oekonomischen-ursachen-des-populismus-33900>

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The future of multilateralism

Toward a responsible globalization that empowers citizens and leaves no one behind

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THE WORLD POLICY FORUM

The Global Solutions Initiative is a global collaborative enterprise that proposes policy responses to major global problems, addressed by the G20, the G7 and other global governance fora. The policy recommendations and strategic visions are generated through a disciplined research program by leading research organizations, elaborated in policy dialogues between researchers, policymakers, business leaders and civil society representatives.

Today's globalized world has generated a variety of globalized problems – from climate change to financial crises to cybersecurity – that can be effectively addressed only through multilateral agreements. Multilateralism is fundamental to the liberal world order created at the end of World War II. It has been crucial in maintaining peace and prosperity. It has also been central to the past successes of the G20 in addressing the global financial crisis and promoting international financial stability.

Nevertheless, this system is now under threat, with its core goals and values challenged from a variety of quarters. The political dissatisfaction with multilateralism in major advanced industrialized countries such as the United States is associated with the failure of global governance in the post-Bretton Woods system to stem the tide of slow growth, rising inequality, falling labor force participation, rising migration, social fragmentation and job insecurity associated with globalization and automation.

For the past two to three decades, it has been widely recognized that the current multilateral system needs to be reformed due to rapid changes in the economic, demographic and political weight of advanced and emerging economies. Political rigidities in multilateral organizations charged with overseeing economic globalization – such as the IMF, World Bank, UN, WTO and others – have prevented adequate reform. The resulting disillusionment with formal multilateralism has led to the consideration of various alternatives, such as the parallel pursuit of bilateral deals or cooperation that is limited to likeminded or geographically proximate countries. None of these alternatives has plausible chances

of completely replacing multilateralism, however, since a globalized world facing globalized challenges requires an open, rules-based international order to ensure that the system works in the service of all nations and people. What is needed is to find the right balance between true multilateralism, defined as universal rules of the game, and the large number of plurilateral agreements that permit greater flexibility to move an agenda forward when universal consensus cannot, or need not, be achieved.

»Political rigidities in multilateral organizations charged with overseeing economic globalization have prevented adequate reform.«

THE CHALLENGE: FINDING GENERAL PRINCIPLES TO MAKE MULTILATERALISM SUSTAINABLE

The challenge is to design a set of legitimate, widely agreed-on general rules,

administered impartially by representative and accountable arbiter institutions, such that all nations: (1) refrain from doing harm to others by instituting beggar-thy-neighbor policies, (2) internalize their cross-border spillovers, (3) cooperate on managing the global commons, (4) cooperate in the provision of global public goods, (5) promote global economic growth and development, and (6) tackle inherently global problems – all the while retaining enough flexibility to accommodate a wide range of possibly divergent domestic policies, economic models, and paths of development.

»The new multilateralism must recognize that there is no one way to satisfy human needs and aspirations.«

PROPOSAL

To lay the groundwork for an inclusive dialogue in the G20, we recommend the establishment of a Working Group on the Future of Multilateralism to develop a set of principles that can help lay the foundations of a new pact on multilateralism with an eye toward accepting institutional

diversity, while ensuring the provision of global public goods and managing the global commons.

Multilateralism needs to address its discontents and evolve to be fit for purpose in an era of renewed great power competition, political economy tensions, issue politicization, and a decoupling of economic prosperity from social prosperity.

We must recognize that globalization and multilateralism are means to an end (i.e., social and economic prosperity) rather than ends in themselves. To that end, multilateralism can be, and ought to be, used as an instrument to promote strong, sustainable, balanced, and inclusive growth within all nation-states and thereby strengthen the world economy.

We also must recognize that despite all the convergence achieved in the last half century, there remain substantial differences in views across the world on desirable institutional frameworks to promote sustainable development. Yet existing multilateral institutions largely champion one “correct” approach to governance that is universally valid. The new multilateralism must recognize that there is no one way to satisfy human needs and aspirations, and that diverse policy approaches are desirable to address diverse cultural challenges. There are, however, universal values, such as those contained in the Universal Declaration of Human Rights, to which all nations have subscribed.

The new realities of the digital economy and rapid technological development necessitate resolute and concerted action to address crucial challenges. Coordinated efforts to address Base Erosion and Profit Shifting (BEPS) to improve the fairness of corporate taxation, especially

of digital companies, and to shore up the privacy treatment of consumer data across borders, are pointed examples of areas in which supranational coordination is required. The new multilateralism must be conceived as a vehicle for enhancing citizen and national empowerment and leadership.

Following Joshua Cohen and Charles Sabel, legitimacy and accountability in the context of global governance require a process of transnational deliberation that can generate explanations for actions taken (or not taken), which others can acknowledge as legitimate, even when values and interests diverge and disagreement prevails. Countries should be “free to experiment and implement different solutions as long as they can explain to their peers – policymakers in the other countries – why they have arrived at those solutions. They must justify their choices publicly and place them in the context of comparable choices made by others.” A similar model is that of “experimentalist governance” in the EU, whereby supranational institutions decide on the goals to be accomplished while national agencies are given freedom to advance these goals in the ways they see fit, as long as they report their actions and results in forums/networked agencies.

The role of subnational and non-state actors in this renewed multilateralism is key. Global governance must transcend exclusive clubs of regulators and technocrats by moving beyond state-centered multilateralism toward a bottom-up, multi-channel multilateralism “that actively embraces the potential contributions to global social organization by civil society and corporate actors.” (Ruggie) Often

these actors are able to sidestep political contestation and advance new global norms via market and social mechanisms more effectively than any national government. The climate change agenda is an example of this kind of multilateralism; formal intergovernmental agreements supplemented by a range of actions and advocacy by subnational government officials, corporations, financial institutions, and individual campaigners.

STATEMENT OF PRINCIPLES

The aim of the Working Group on the Future of Multilateralism is to define a set of G20 Principles for Sustainable Multilateralism that account for some or all of the above-mentioned realities, challenges and opportunities: a set of general “traffic rules that help vehicles of different size and shape and traveling at varying speeds navigate around each other, rather than impose an identical car or a uniform speed limit on all” (Rodrik).

The following are suggested areas that a set of principles should inform. The guidelines and principles, when formulated, must ensure that the system as a whole is to everyone’s net benefit, as this gives incentives to all countries to participate, a property of the system that is essential to its enforcement.

Focus on public well-being

The goals of multilateral agreements must be formulated clearly in terms of the public interest. The agreements must enhance the well-being of people living under diverse national circumstances and must recognize states’ demands for policy autonomy. The objective must not be harmonization for its own sake, but rather the promotion

of empowered citizens, living meaningful and prosperous lives in sustainable, inclusive and thriving communities.

Complementarity between the national and the multilateral

The underlying aim is to make multilateralism complementary to the capacities of nation-states, not a substitute for it. Just as national politics must induce citizens of nations to constrain their pursuit of self-interest in order to achieve common national goals, so multilateral politics must induce nations to constrain their pursuit of national interest in order to achieve common transnational goals.

Accompanying the integration of the global economy, we have witnessed a proliferation of global challenges, including financial crises, cyber threats, climate change, and much more. These challenges affect all nations of the world and it is in the interests of each nation that they be addressed successfully. Multilateral coordination generates win-win opportunities for all nations. In order to exploit these opportunities, the gains from multilateral coordination must be spread appropriately, enabling all participating nations to benefit.

Subsidiarity

The principle of subsidiarity can help bolster the legitimacy of multilateralism. Thus full-fledged multilateralism should serve a subsidiary function, dealing only with policies, such as child labor or currency and tariff wars, that must be implemented universally, without national or more local, divergences. Other types of plurilateral agreements might achieve limited advantages for a smaller group of

countries without adversely affecting the rest of the world.

Systemic coherence

The new multilateralism must be designed with a view to ensuring the systemic coherence of the world order. In view of the diverse cultures, conditions, capabilities, norms and values represented in the community of nations, diversity of policy approaches is desirable. Nevertheless, this diversity of approaches must be brought into consistency with the multilateral agreements aimed at addressing global challenges. When multilateral policies come into conflict with national policies, the result is ambiguous. Where negative spill-overs are proscribed, multilateralism can avoid beggar-thy-neighbor “cheating” through which one country can game the system for their own benefit. But in other cases, where multilateral policies are not seen as delivering on national goals, the “sovereignty cost” may undercut support for the whole system. Multilateral agreements and national policies need to be formulated accordingly.

In order to ensure the continuity of policymaking and the resilience of the world order, the new multilateralism should build on the existing patchwork of plurilateral, multi-level, multi-channel coalitions and alliances designed to address specific overlapping interests, governed by general principles, and guided by multilateral consensus. This system could provide room for variation in institutional practices across nation-states within a framework of global cooperation and coordination.

Achieving systemic coherence in policymaking requires agreement on an

overall approach to policymaking. This approach needs to be achieved through an evolving dialogue among nations at multiple levels, involving a wide range of stakeholders from the domains of politics, business, academia and civil society. An illustration of such an approach, which may provide a useful point of departure for the evolving dialogue, is Elinor Ostrom’s Core Design Principles, as applied to the relationships among nations: (1) encourage national solidarity; (2) match rules addressing global problems to national needs and conditions; (3) ensure that all states affected by the rules can be involved in changing the rules; (4) ensure that the rule-making rights of states are respected at the multilateral level; (5) develop a system, carried out by the member states, for monitoring states’ behaviors; (6) agree on graduated sanctions for rule violators; (7) agree on accessible, low-cost dispute resolution mechanisms; and (8) build responsibility for addressing global problems through nested tiers of governance, in which diverse national policies and multilateral agreements constitute a consistent system of policymaking.

These ideas are not new. In his 1933 article on “National self-sufficiency,” John Maynard Keynes recognized that “there is no prospect for the next generation of a uniformity of economic system throughout the world, such as existed, broadly speaking, during the nineteenth century; that we all need to be as free as possible of interference from economic changes elsewhere, in order to make our own favorite experiments towards the ideal social republic of the future; and that a deliberate movement towards greater national self-sufficiency and economic isolation will

make our task easier, in so far as it can be accomplished without excessive economic cost.” His key point was to encourage experimentation, even at the cost of a certain degree of global economic inefficiency.

»Multilateral coordination generates win-win opportunities for all nations.«

In service of systemic coherence, the G20 must itself seek greater coordination with the UN system, Bretton Woods institutions, and related bodies. To give an example of a concrete proposal, a recent follow-on report to the 2015 Albright-Gambari Commission Report recommends that the G20 be upgraded to a “G20+” by: (1) assembling G20 heads of state at UN Headquarters during the UN General Assembly every two years; (2) establishing formal links with intergovernmental organizations for policy implementation and follow-through, and (3) establishing a small secretariat to enhance systemic coordination and enable the accumulation of a collective institutional memory and consensus. Reforms of this kind, supported by a set of principles of multilateral engagement, would make the G20 not only a more effective institution but also a more inclusive and, therefore, sustainable one.

The future of AI governance

The G20's role and the challenge of moving beyond principles

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THE CHALLENGE

The transition to a digital age has already begun and is moving fast. Artificial intelligence (AI) is bringing about new challenges and putting pressure on public institutions to change. Algorithms are increasingly being used by governments and businesses. They are transforming employment by means of automated evaluation tools, assisting in the provision of public services, streamlining government procedures, changing the way in which criminal justice works through predictive policing, and re-shaping educational systems by incorporating automated evaluation tools. But many of these developments have low levels of transparency, public knowledge, and lack supervision mechanisms. The risks of this transition are also substantial, posing severe governance challenges (Dafoe, 2018).

In their 2019 Communique, G20 leaders took a stand on this and stated the need to help societies adapt to the digital transformation of our economies. They have also endorsed the OECD's Artificial Intelligence Principles, setting-up the ethics or base values for AI deployment, voicing their desire to develop an AI centered on people,

with respect for ethical and democratic values, which is transparent, safe and accountable. Nevertheless, few governments worldwide have launched comprehensive plans to promote the use and development of AI, setting national guidelines for its future. Those that have set an outline for AI tend to focus their roadmap on principles rather than on concrete goals (Dutton, 2018; Akerkar, 2019). No two governance strategies for digital technologies are the same, and differences between G20 countries are already surfacing. They vary in terms of the approach taken, the degree of institutional development and the link with the corporate sector. But there are cross-cutting issues to be addressed, such as the interoperability of systems, privacy and inclusion, which require common understandings, mechanisms and norms (WEF, 2019).

»Algorithms are increasingly being used by governments and businesses.«

Principles are the starting point of a much more complex process and little progress has been made yet on the policy aspect of AI and the regulations that are needed to reach those objectives. An extensive and successful incorporation of AI

requires governments to redefine strategies based on the use of new technologies and to develop adequate governance structures. This paper seeks to contribute to the discussion by outlining the state of AI as a subject of regulation, presenting new questions for the debate about how to move beyond principles, and exploring the role the G20 could have in facing this challenge.

REGULATORY PATHS: AI AS A SUBJECT OF PUBLIC POLICY

As more automated decision systems are being used by public agencies, experts and policymakers worldwide are beginning to debate when and where automated decision systems are appropriate (Reisman, Schultz, Crawford, and Whittaker; 2018). The challenges for an equitable and inclusive AI implementation are many. It is not clear yet how to assess AI's effects or whether algorithms can fully cope with complex social and historical settings. Algorithms are human creations and as such, subject to the same biases people have. Its deployment depends, to a large extent, on the absorption of large stocks of data that can also be potentially biased (Lodge & Mennicken, 2017). Since much of the processing, storage and use of information is performed by the algorithm itself and within a virtually inscrutable black-box, experts are raising concerns as well about whether we can understand how this information is dealt with in order to scrutinize the decisions made and assign both ethical and legal responsibility for the results reached (European Parliament Research Service, 2016). Information is power and the usage and recollection of information without people's express

consent and knowledge infringes on their rights (Kerry, 2019; Schrock, 2018).

As a result, several experts, sector leaders and policymakers have agreed on the need to act, and have launched a series of guidelines for the set-up of AI systems. But the debate about the best path for AI is not settled, the possible models are varied, they cover a myriad of activities occurring across multiple jurisdictions, and few have been tested. The following lines present a conceptual approach for the existing AI regulations, assessing the landscape of technology governance across four different dimensions regarding: (i) the regulatory lens through which technologies are implicated, that is, the existence of vertical, sector-specific standards or transversal regulations; (ii) their governance geographical scope: whether they are pushed forward by supranational organizations, countries or subnational governments; (iii) the regulatory approach: whether more or less coercive; and finally (iv) the public-private divide in its making. In doing so, the brief's goal is not to put forward all the regulations that exist but to discuss the possible alternatives currently under debate and challenges they bring about.

The first dimension to assess regulatory schemes has to do with the divide between those who favor the sanction of vertical standards (eg. AI Sector Deal in the United Kingdom), and those who call for cross-cutting regulations (eg. Sample, 2017; Mulgan, 2016). The former argue that specific policy domains such as health or education have their own trajectories, regulatory frameworks and risks. Therefore, a national body of AI would have difficulties complying with these specialized requirements. The latter consider

the need to develop shared standards and ensure interoperability, for example, of privacy systems. Some of the proposals include the creation of a guardian organ of AI responsible for monitoring how algorithms make decisions (Sample, 2017); a Council of National Robotics, without police power but with technical capacity to make recommendations (Calo, 2014); a Federal Algorithm Directorate, modeled after the US's FDA, with regulatory powers to evaluate the systems before they are launched on the market (Tutt, 2016); or a Machine Learning Commission that can create algorithms but without power to certify or approve these developments (Mulgan, 2016).

»The EU seeks to enhance cooperation on AI across Europe to boost its competitiveness and foster trust.«

A second dimension refers to the geographical scope of the regulatory initiatives and whether they are generated by supranational, national or subnational

governance structures. While supranational norms set common standards for all countries that are part of these agreements, and therefore ensure a baseline of rights and guarantees for their citizens, such norms can overlook stark regional and local differences that may emerge not only in terms of the countries' technical capacities but also regarding their cultural and political context. Simultaneously, while national and local norms can allow for this diversity more easily, a fractionalized world in terms of people's access to rights, for example, to privacy, can not only reinforce present inequalities but can also lead to more tension as a result of uneven technological developments.

Many proposals have emerged from international organizations in the past few years, as geopolitical entities such as the UN, the EU and the OECD have begun to encourage the discussion on AI regulation. The goal behind many of these recommendations is to generate a human-centered approach for the development of AI, reducing differences among countries and ensuring a minimum of guarantees for all citizens. The OECD for instance, has launched a Council on Artificial Intelligence that published a series of general recommendations signed by 42 countries (36 belonging to the OECD, including the US, Argentina, Brazil, Colombia, Costa Rica, Perú and Romania)¹. This document, geographically comprehensive, points to both responsibility and transparency in the creation of technology and its use, as well as a public, governmental drive for research, development and international cooperation in subjects related to AI. At the G20 Ministerial Meeting on Trade and Digital Economy, held in 2019 at Japan, the

ministers approved these principles for AI as an annex to their declaration, which was later on ratified at the Osaka Summit.

Likewise, the European Union and the Nordic-Baltic region have also generated strategic plans for the development of AI. From the EU perspective, it is not only about leading technological development but also leading on regulatory matters. The European Commission seeks to enhance cooperation on AI across the EU to boost its competitiveness and foster trust based on EU values and ethics. The logic is human-centered and includes several requisites for AI systems to be considered reliable, regarding agency and human supervision; technical robustness, safety and the need for resilient systems to prevent or minimize unintentional damages; privacy and data governance; transparency; diversity, non-discrimination and fairness; social and environmental well-being; and accountability². The Commission has presented these ethical guides to EU member states and different sector-specific actors, setting-up a pilot phase with a High-Level Expert Group on AI, comprised of 52 independent experts representing academia, industry and civil society, to gather feedback.

Moreover, the expert group also presented 33 recommendations to maximize AI's impact on citizens, businesses, administrations and academia, ensuring sustainability, growth and competitiveness, while empowering, benefiting and protecting individuals³. Among the many topics covered, a key recommendation is the proposal to adopt a risk-based governance approach to AI and to develop an appropriate governance structure and regulatory framework by mapping relevant

laws, assessing whether these are fit for purpose in an AI-driven world, and adopting new measures where needed to protect individuals from harm. The next step would be a revised version of the EU joint plan on AI. But the challenge this approach possesses is the interoperability of norms in countries with different cultural and political backgrounds. That is, the application of guidelines and shared values, rather than the principles themselves.

On the other hand, several countries have developed their own national strategic AI projects. Some with an explicit focus on stating their will to foster technological development, others focused on establishing ethical values and principles for AI research and development (see Annex I for a detailed case-by-case description). Estonia and China are clear examples of this. While Estonia brought together a group of experts from the public and private sectors to work on the preparation of a law that encompasses AI in a comprehensive manner, China presented the objectives of its plan, but postponed any regulations to the future. As for the question of the values of AI, China has launched the "Beijing principles of AI", a code of conduct for the research, development, use, governance and long-term planning of AI, elaborated by the Beijing Academy of Artificial Intelligence (BAAI), supported by the Ministry of Science and Technology, in collaboration with AI centers and universities⁴. The initiative was made public in mid-2019, as China-US tensions rose, and states the goal of supporting the construction of beneficial AI for both humankind and nature. While China's government is widely criticized for using AI to monitor citizens, the mentioned guidelines do not differ substantially from

the ethical frameworks laid out by Western governments, which could signal a certain willingness to rethink its use of technology or, once again, that the principles themselves are not the main issue at hand⁵.

As the interest in artificial intelligence rose, several subnational governments also decided to take the lead. The United States presents an interesting case in this matter. Despite having developed a national AI strategy and debating several bills within its territory, especially in matters of privacy (driven by legislators of the main parties and jointly designed with private companies or groups), the US does not yet have a comprehensive national regulation (Kerry, 2019)⁶. Still, the federal configuration of the country has enabled the sanction of some regulations at the state level. An example of this is the case of Nevada, where the first bill to regulate autonomous vehicles was sanctioned in 2011, although it did suffer some challenges that required subsequent modifications as autonomous vehicles were initially defined as any replacement of human operators by artificial intelligence, which encompass more instruments or tools than autonomous vehicles (Calo, 2014). Regulatory efficiency also brings about a certain learning curve. Moreover, in 2018, the state of California enacted one of the country's strictest laws on personal data protection, emulating the European law (Lecher, 2018). In 2019, activists and organizers across the US successfully advocated to pass laws banning facial recognition in several cities and members of the United States Congress proposed several bills to move this forward, such as a Commercial Facial Recognition Privacy Act of 2019, the Facial Recognition Technology Warrant Act, and the No Biometric

Barriers Act of 2019 (Crawford et al, 2019).

Discussions about AI regulation concern a large part of the world, but as the previous cases show, few governance structures (regardless of their scope) have sanctioned specific norms or binding standards for research, production or use of AI. This leads to the third dimension: variations in the regulatory intensity. According to the Regulatory Institute (2018), Japan is the only country that has promoted a specific binding regulation on AI. In addition to developing a comprehensive national robotics program, in 2015 an information protection bill was approved to regulate the use of personal data. Its approach facilitates innovation through links between the public and private sectors and protects personal data rights (Regulatory Institute, 2018). This law also sets forward the creation of a commission to monitor compliance. Despite this, no other sensitive areas have been addressed, such as the regulation of autonomous vehicles, aviation devices, or security.

»Several countries have developed their own national strategic AI projects.«

Others, such as the United Kingdom, carried out an analysis on the state of AI

and promoted the creation of bodies to study and monitor its needs. In line with this, the House of Lords studied the impact of AI and determined not to support the sanction of a broad regulation of AI, considering that specialists in each sector are better prepared to analyze their specific implications (House of Lords Selected Committee for AI, 2018). In addition, they urged the executive branch to create new government institutions: a government 'Office of Artificial Intelligence' and two advisory bodies – an AI Council and a Center for Data Ethics and Innovation. These institutions are tasked with connecting policymakers, industry leaders, civil society representatives, and the public, and analyzing the development of AI and the appropriate governance regimes for data-driven technologies. They are responsible for making technical and ethical proposals on its use and regulation, but do not have the capacity to impose legally applicable regulations (Blaikie & Donovan, 2018).

Singapore, on the other hand, recognized the need for a regulatory framework for AI, but initially adopted a lighter approach meant to promote its further development. In 2017, the Singapore government presented a guide for sharing data in accordance with the current law on the protection of personal data, in order to harmonize its use with the existing law. However, later on, the government established an AI ethics advisory council to give guidance both to government and businesses on the development and use of AI. Singapore also launched an AI programme (called AI Singapore) to coordinate the development of national capabilities and build a transparent ecosystem, and a National AI Strategy in which they

identified five key projects to ensure a successful adoption of AI. The national strategy also calls for support from the private and public sectors, and sets up a governance framework for AI, with guidelines for private-sector organizations to deal with key ethical and governance issues⁷.

»Differences in the way new technologies are implemented can make it more difficult to ensure citizens have access to equal rights.«

Broadly speaking, the few regulations that do exist were sanctioned in developed regions and countries (where the use of AI is more expanded) and try to deal mostly with the handling of information and the use of personal data, but they have not included – so far – a more comprehensive regulation toward an adequate governance structure, monitoring and accountability regimes, or a clear consensus on the best way forward to achieve it.

Finally, AI regulations differ across a fourth dimension: that of the role of public vis-a-vis private institutions. Public-sector governance of emerging technologies often involves, but is not limited to, the development of legal or regulatory instruments to guide the research and implementation of these technologies. But governance mechanisms can also be privately created and enforced. Emerging technologies blur traditional boundaries. An interesting example is that of organizations such as the International Organization for Standardization (ISO), the world's largest developer of voluntary international standards, or the Institute of Electrical and Electronics Engineers (IEEE) and the International Electrotechnical Commission (IEC).

The case of AI has highlighted a growing influence of private companies in public domains and the need to rethink ways to achieve private accountability in an era of algorithms (Kataly, 2019). Therefore, many governments are also pursuing the expansion of public-private partnerships to accelerate advances in AI and enhance government capabilities. It is not just about regulating private-sector action but also about collaborating in the development of secure, transparent and accountable systems. This comes especially in the form of three-way collaborations between the government, private industry and research institutions. For instance, in 2019, the US Office of Science and Technology Policy launched an updated version of their National AI Research and Development Strategic Plan, a document that aims to guide agencies in their AI R&D priorities and endeavors, directing federal agencies to collaborate with the private sector and universities to accomplish their goals⁸.

DISCUSSION

Despite the growth of ethical frameworks, AI systems continue to be implemented rapidly across spheres of considerable significance both by the public and private sectors – in healthcare, education, criminal justice, and many others (Abdala, et al, 2019) without appropriate safeguards or accountability mechanisms in place. The future of politics is still uncertain. Many challenges remain, and no single initiative, country, or company can tackle these challenges alone.

Emerging technologies are increasingly cross-border and significant opportunities could be lost without some level of alignment in the regulations and norms that guide technological development and implementation across jurisdictions (WTO, 2019). In a fragmented world, new tensions could emerge both within and between nations. In terms of economic prosperity, it could become more expensive for some technological systems to be developed, delaying innovation. This can also foster inequity and new types of divides between the more technologically advanced countries or regions and the lagging ones.

Moreover, regarding human rights, stark differences in the way new technologies (and AI specifically) are managed and implemented can make it more difficult to ensure that citizens have access to equal rights and opportunities across territories. New technologies can be used as fresh digital tools for surveillance, allowing governments to automate the monitoring and tracking of citizens; or they can help policymakers allocate public goods and resources more efficiently; or even be powerful mechanisms for private companies to predict our behavior. The storage and

use of our personal data that is managed to power AI can be publicly or privately led. It can be given voluntarily, as a type of currency or taken without consent or knowledge. Overall, the road to the digital future is full of conflicts over who has access to our data, who has the authority to decide over it and who has the power to enforce that authority.

This does not mean, however, that all technology governance must be global. It is important for regions, states and cities to be able to respond to the specific social, economic and cultural demands of their citizens. In this sense, as most of the research has focused on developed countries, there is also a need for more knowledge on the locally specific impact of AI systems on countries in the Global South and the ways new technologies may reinforce historical inequities in these regions.

But global processes are valuable, even when they do not result in integrated systems, because inequality tends to get the upper hand in the absence of common standards. Defining comparable global levels for ethical, humanitarian, legal and politically normative frameworks will prove decisive in managing the digital transition and searching for social inclusion. Even more, there will be a growing need to move beyond ethical principles and focus on the standards needed for algorithms, taking into consideration the geopolitical and cultural differences that arise. The role of the G20 in aligning interests and leading such processes will prove to be key in the years to come. The G20 brings together the main political and economic forces of the world. It is geographically representative and it includes the world's largest economies.

As a key forum for debate and dialogue, both executive and parliamentary, it is the perfect platform to discuss the future of digital governance and respond to one of the biggest existing threats and challenges our world is facing today. There is not yet one right answer about the best roadmap

for AI, but several options. We need to work together in defining which road will benefit the many. By engaging in this debate and leading the conversation, the G20 has the potential of becoming the spinal column of a new architecture for the 21st century and ensure a better future for all.

¹ <https://www.oecd.org/science/forty-two-countries-adopt-new-oecd-principles-on-artificial-intelligence.htm>

² <https://ec.europa.eu/digital-single-market/en/news/ethics-guidelines-trustworthy-ai>

³ <https://ec.europa.eu/digital-single-market/en/news/policy-and-investment-recommendations-trustworthy-artificial-intelligence>

⁴ <https://www.baai.ac.cn/blog/beijing-ai-principles>

⁵ <https://www.technologyreview.com/s/613610/why-does-china-suddenly-care-about-ai-ethics-and-privacy/>

⁶ Regarding ethics, the Trump administration launched an executive order in 2019 to set up the concept of an AI that follows 'American values', by which AI systems must reflect ideals such as human rights, freedom, and respect for privacy and the rule of law. The main focus lies in the idea of trustworthy, secure and understandable AI.

⁷ <https://www.imda.gov.sg/-/media/lmda/files/programme/ai-data-innovation/model-ai-governance-framework--first-edition.pdf>

⁸ <https://www.whitehouse.gov/wp-content/uploads/2019/06/National-AI-Research-and-Development-Strategic-Plan-2019-Update-June-2019.pdf>

Annex I: Examples of countries that have made it public that they are developing AI National Strategies (as of December 2019).

The federal government of Argentina announced the creation of a national AI plan (July 2018) but the plan has not been published yet. Available at: <https://www.argentina.gob.ar/ciencia/desconferencia-plan-nacional-de-inteligencia-artificial> (last accessed December 2019).

The federal government of Australia has dedicated \$29.9 million in the 2019 country's annual budget to promote and guide the development of AI. Available at: <https://www.industry.gov.au/strategies-for-the-future/boosting-innovation-and-science> (last accessed November 2019).

The Austrian government set up an advisory Robot Council and is developing a national AI strategy. Available at: <https://futureoflife.org/ai-policy-austria/> (last accessed December 2019).

The federal government of Canada has a national Pan-Canadian Artificial Intelligence Strategy. Available at: <https://ppforum.ca/articles/keeping-up-with-the-speed-of-disruption-presentations/pan-canadian-ai-strategy-for-ppf-02march18/> (last accessed December 2019).

The Chinese government created a national AI strategy under the "New Generation Artificial Intelligence Development Plan". Available at: <https://flia.org/notice-state-council-issuing-new-generation-artificial-intelligence-development-plan/> (last accessed December 2019).

Denmark's digital strategy includes a focus on AI along with other technologies. Available at: <https://eng.em.dk/media/10554/digital-strategy-fact-sheet.pdf> (last accessed December 2019).

Estonia is developing a legal framework for the use of AI, which includes a bill on AI liability. Available at: <https://e-estonia.com/estonia-accelerates-artificial-intelligence/> (last accessed November 2019).

Finland set up an Artificial Intelligence Program within the Ministry of Economic Affairs and Employment. Available at: <https://item.fi/en/artificial-intelligence-programme> (last accessed January 2020).

The French government defined a "AI for Humanity" strategy. Available at: <https://www.aiforhumanity.fr/en/> (last accessed January 2020).

Germany launched an Artificial Intelligence Strategy (November 2018). Available at: <https://www.de.digital/>

DIGITAL/Redaktion/EN/Meldungen/2018/2018-11-16-federal-government-adopts-artificial-intelligence-strategy.html (last accessed January 2020).

India announced a national policy on AI in a working paper "National Strategy for Artificial Intelligence #AIforAll". Available at: http://niti.gov.in/writereaddata/files/document_publication/NationalStrategy-for-AI-Discussion-Paper.pdf (last accessed January 2020).

Ireland hosted AI workshops and launched a national AI master's program. Available at: http://www.idaireland.com/IDAIreland/media/Infographics/IDA_AI_Ireland.pdf?ext=.pdf (last accessed December 2019).

Italy has an interdisciplinary AI Task Force – the Agency for Digital Italy. Available at: <https://www.agid.gov.it/it/agenzia/stampa-e-comunicazione/notizie/2017/09/07/al-task-force-sullintelligenza-artificiale-al-servizio-del-cittadino> (last accessed December 2019).

Japan launched an "Artificial Intelligence Technology Strategy" and included AI in its "integrated innovation strategy." Available at: <https://www.nedo.go.jp/content/100865202.pdf> (last accessed December 2019).

Kenya has a Blockchain & Artificial Intelligence task force. Available at: <https://ai4d.ai/blog-africa-roadmap/> (last accessed December 2019).

Lithuania released The Lithuanian Artificial Intelligence Strategy (April 2019). Available at: <http://kurkt.lt/wp-content/uploads/2018/09/StrategyIndesignpdf.pdf> (last accessed December 2019).

The Mexican federal government published a white paper "Towards an AI Strategy in Mexico: Harnessing the AI Revolution." Available at: <https://www.gob.mx/mexicodigital/articulos/estrategia-de-inteligencia-artificial-mx-2018> (last accessed November 2019).

The Netherlands launched the Strategic Action Plan for Artificial Intelligence in October 2019. Available at: <https://www.rijksoverheid.nl/ministries/ministerie-van-economische-zaken-en-klimaat/documenten/beleidsnotas/2019/10/08/strategisch-actieplan-voor-artistieke-intelligentie> (last accessed January 2020).

New Zealand launched an AI Forum to advance the country's AI ecosystem. Available at: <https://aiforum.org.nz/> (last accessed January 2020).

Russia released a national AI strategy in October 2019. Available in English at: https://cset.georgetown.edu/wp-content/uploads/t0060_Russia_AI_strategy_EN-1.pdf

Saudi Arabia established a National Center for Artificial Intelligence and an organization called the National Data Management Office, which will be linked to the Saudi Data and Artificial Intelligence Authority, in line with the objectives of the Kingdom's Vision 2030 program to enhance the drive toward innovation and digital transformation (September 2019).

Singapore launched a National AI Strategy with ethical guidelines and a national AI program called AI Singapore (November 2019). Available at: <https://www.aisingapore.org/> (last accessed January 2020).

South Korea created an Artificial Intelligence Information Industry Development Strategy. Available at: <https://english.msiit.go.kr/english/msipContents/contents.do?mld=NDYx> (last accessed December 2019).

Spain published an AI RDI strategy (March 2019). Available at: http://www.ciencia.gob.es/portal/site/MICINN/me_nuitem.26172fcf4eb029fa6ec7da6901432ea0/?vgnextoid=70fcdb77ec929610VgnVCM1000001d04140aRCRD&lang_choose=en (last accessed January 2020).

Sweden released a "National Approach for Artificial Intelligence". Available at: https://www.vinnova.se/contentassets/29cd313d690e4be3a8d861ad05a4ee48/vr_18_09.pdf (last accessed January 2020).

Tunisia created an AI Task Force and Steering Committee to develop a national AI strategy. Available at: <http://www.anpr.tn/national-ai-strategy-unlocking-tunisias-capabilities-potential/> (last accessed December 2019).

United Arab Emirates launched a national strategy for AI. Available at: <http://www.uaeai.ae/en/> The United States of America launched the American AI Initiative. Available at: <https://www.whitehouse.gov/ai/> (last accessed January 2020).

The United Kingdom released a Sector Deal for AI, taking into account the advice of the Parliament's Select Committee on AI. Available at: <https://www.gov.uk/government/publications/artificial-intelligence-sector-deal-ai-sector-deal> (last accessed January 2020).

Uruguay launched a public consultation of Artificial Intelligence for the Digital Government in April 2019 and is developing a strategy. Available at: <https://www.gub.uy/participacionciudadana/consultapublica> (last accessed January 2020).

China and its Long March: End in sight? Not yet

Three reasons China started the “New Long March”

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Chongyang Institute for Financial Studies at Renmin University of China (RDCY) was established on January 19th, 2013. It is the main program supported by an education fund with the 200 million RMB donation from Mr Qiu Guogen, an alumni of Renmin University of China, and now Chairman of Shanghai Chongyang Investment Group Co., Ltd.

RDCY is a new style think tank with Chinese characteristics. We have invited more than 90 former politicians, bankers, and preeminent scholars from over 10 countries as senior fellows. We also maintain cooperation with think tanks from over 30 countries.

China has entered a new era of development. China now has an impact on the world that is ever more comprehensive, profound, and long-lasting, and the world is paying ever greater attention to China. What path did China take? Where is China going? What are China's goals in shaping the world? How will China interact with the rest of the world? The theses in this article are based on Wang (2019).

»China now has an impact on the world that is ever more comprehensive, profound and long-lasting.«

The Long March, a grueling 9,000 kilometers, is the one-year journey undertaken by Communist Party forces in October 1934. The Red Army, the forerunner of the People's Liberation Army (PLA), carried out a daring military maneuver that laid the foundation for the eventual victory of the Communist Party of China (CPC).

The Red Army marched through raging rivers, snowy mountains, and arid grasslands to break the Kuomintang regime's grip on the country and to continue their fight against Japanese invaders. From there, they regrouped and eventually took control of China in 1949, making the Long

March one of the most important strategic transitions of China's Communist Party. The Long March spirit is a strong impetus for the people of all of China's ethnic groups to keep pressing ahead. Since 2014, President Xi Jinping of China underlined the significance of the Long March spirit in the new era, calling many times on Chinese people to begin a "New Long March." The "New Long March" is a metaphor for China's important strategic transformation for the future. There are reasons to explain why China has started the "New Long March."

CHINA NEEDS TO MAKE MORE CONTRIBUTIONS TO THE WORLD

Today, after more than 30 years of rapid growth in China, China and the world have undergone tremendous changes. The world is undergoing profound changes unseen in a century: the surging trend toward multi-polarity, economic globalization, IT application and cultural diversity have accelerated the transformation of the global governance system and international order, the rapid rise of emerging markets and developing countries, and a greater balance in the global power configuration. The well-being of people in all countries has never been so closely intertwined as it is today.

On the other hand, China also faces challenges unseen before. Hegemony and power politics persist; protectionism and unilateralism are mounting; war, conflicts, terrorism, famine, and epidemics continue to plague us; security challenges, both traditional and non-traditional, remain as complex and interwoven as ever. To respond to the call of the times, China sees it as its mission to make a new and

even greater contribution to humankind. China will work with other countries to build a community with a shared future for humankind, forge partnerships across the world, enhance friendships and cooperation, and explore a new path of growing state-to-state relations based on mutual respect, fairness, justice, and win-win cooperation. One of China's goals is to make the world a place of peace and stability and a life happier and more fulfilling for all.

In the future, China will provide more and better public goods to the world in four aspects. First, China will build a high-quality Belt and Road together with our partners. According to a World Bank research report, the initiative will help 7.6 million people out of extreme poverty and 32 million out of moderate poverty. It will increase trade in participating countries by 2.8-9.7%, global trade by 1.7-6.2%, and global income by 0.7-2.9%. The initiative is a veritable road to resource sharing, shared prosperity and common development.

Second, China is building platforms for multilateral dialogue and cooperation, such as the "17+1" dialogue among China and Central and East European Countries, and the BRI Forum. China firmly supports multilateralism and advocates that international affairs should be discussed and handled by all countries. China has set up platforms for multilateral dialogue and cooperation in political, economic, security, cultural and other fields.

Third, China actively participates in international and regional affairs. As a permanent member of the UN Security Council, China strives to contribute wisdom and strength to the settlement of major international and regional flashpoints. China

has strengthened international exchanges and cooperation in energy, food and network security, and in the polar regions, outer space and the oceans.

Fourth, China has actively provided aid to countries in need. As a developing country itself, China identifies with other developing countries in terms of the poverty and suffering they are experiencing and provides them with assistance within its capacity.

In the future, China will provide financial, technical, personnel and intellectual assistance to developing countries, to help recipient countries strengthen their capacity for independent development, and to make a greater contribution to promoting their economic and social development and people's well-being, and to achieving the United Nations 2030 Agenda for Sustainable Development.

»China needs to convince more countries that its development is an opportunity for the world.«

CHINA IS STILL DEALING WITH A RAFT OF SEVERE CHALLENGES

Over the past 70 years, under the leadership of the Communist Party of China

(CPC), the PRC has witnessed profound changes and achieved a miracle of development unprecedented in human history. In just a few decades, China has completed a course that took developed countries several hundred years. China has now become the world's second-largest economy, taken care of the material needs of its nearly 1.4 billion people, and achieved moderate all-round prosperity. Its people enjoy dignity and rights previously unknown to them. China's development has brought tremendous change to China. It also represents remarkable progress for human society, and above all, a significant contribution to China's part to world peace and development. China remains the world's largest developing country, with a large population and foundations that need to be further strengthened. Some of the fundamentals in China remain unchanged, and therefore China is still facing a raft of severe challenges. Chinese people still have work to do.

First, the Chinese people need to remove institutional obstacles hindering development through reform and innovation. The purpose is to unleash and develop productivity and social vitality, to improve and develop Chinese socialism, and to modernize China's system and capacity for governance.

Second, China needs to convince more countries that China's development is an opportunity for the world. With the rapid increase of China's comprehensive national strength and international influence, some people worry that China will fulfill the outdated expectation that a country will invariably seek hegemony when it grows strong, so they have created what they call the "China threat" perspectives.

The causes of this theory include cognitive misunderstanding, deep-rooted prejudice, a psychological imbalance brought about by the prospect of falling power, and deliberate distortions by vested interests. China is committed to further expanding imports, relaxing market access, improving the business environment, and strengthening the protection of intellectual property rights. Other countries should also open wider to the world and take corresponding measures to improve their business environment. Only by moving towards each other can we create a development environment that is open, inclusive, balanced and beneficial to all, make the "cake" of development bigger, and form a mutually beneficial community of shared interests.

Third, China needs to shoulder more responsibility for global economic development. International politics and the economic system have been dominated by Western powers since the First Industrial Revolution. In more recent decades, emerging market and developing countries have realized rapid growth by seizing the historic opportunities presented by economic globalization. According to the latest data released by the IMF, the share of emerging market and developing economies in global output, measured by purchasing power parity, first surpassed that of advanced economies in 2008 and rose to 59% in 2018. But change also brings risks and challenges. Factors of instability and uncertainty are increasing. Deficits in governance, trust, peace, and development are growing. The world is facing the danger of a relapse into fragmentation and even confrontation. The world economy is slowing down for a lack of impetus, and the gap between the rich and poor is widen-

ing as a consequence of capital's excessive pursuit of profit. Trade protectionism is on the rise. Global public and private debt is rising steeply. Some emerging economies have encountered major financial turbulence. The world economy is facing mounting downward pressure. China is the world's largest emerging economy, and China's development will directly affect the global economy.

CHINA NEEDS TO INSIST ON ITS INDEPENDENT DEVELOPMENT PATH WHEN EVERYTHING CHANGES ALL THE TIME

I am the deputy dean of the Silk Road School of the Renmin University of China. We have students from more than 40 developing countries. We admit some Indian students every year and they are very excellent. These students often ask the question: Why does China insist on taking its own development path?

In my opinion, a country has many similarities with natural ecosystems. I want to share a story to explain why China insists on its own developing road. In the early 1930s, Australia had problems with cane beetles, which rendered the production and harvesting of sugar cane crops less profitable. In response, on June 1935, the Australian local government introduced a predator, the cane toad, previously only native to South and Central America. After being bred in captivity, a number of young toads were released in North Queensland in July and August 1935. With poisonous skin and no native predators, the cane toads spread widely; there are an estimated 200 million in existence today. This history tells us: introducing changes to a dynamic ecosystem can yield unpredictable results.

It is not easy for a country to find a development path suited to its own national conditions. In the recent past, many developing countries have worked hard in the hope of making themselves prosperous and strong, but few have really found the right path and achieved good development. Copying or imitating other countries offers no way forward. Some countries blindly copied or were forced to adopt the Western model, but they did not achieve economic development or political stability. Instead, they fell into social unrest, economic crisis, governance paralysis, and even endless civil war.

The choice of path is critical to the successful development of a country. As a vast country with a nearly 1.4 billion population, China has no experience of modernization to borrow from in history but has to blaze its own path. The greatest inspiration from China's development is: What kind of path a country takes should be based on the experience of other countries, but more importantly on its own reality, and should be decided by its own people in accordance with its own history, cultural traditions, and level of economic and social development.

Just as I mentioned in Wang (2019), China cannot develop in isolation from the rest of the world, nor can the world as a whole maintain peace, development, prosperity, and stability without China. China will do well only when the world does well, and vice versa. In today's world, we face an array of opportunities and hopes, of variables and challenges. The future of all countries has never been more closely connected. From these perspectives, we are all on the new Long March of making a better world.

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Realizing the low-carbon future

What role for central banks and monetary authorities?

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The Economic Research Institute for ASEAN and East Asia is an international organization providing research and policy support to the East Asia region and the ASEAN and EAS summit process. It was established in Jakarta, Indonesia at the third East Asia Summit in 2007, serving 16 member countries of the region, providing policy recommendation for further economic integration in the East Asia

ABSTRACT

Placing both advanced and developing countries on a low-carbon path requires an unprecedented shift in private investments and new financing models. The financial sector will have to play a central role in this low-carbon transformation, while avoiding destabilizing effects on economic systems. Central banks and other financial institutions are ready to use their extensive knowledge in lending, investment, and smart advisory services to achieve the low-carbon targets expressed in the Paris Agreement. With support from central banks, commercial and national development banks can offer diverse financing products with maximum impact and appropriate risk management.

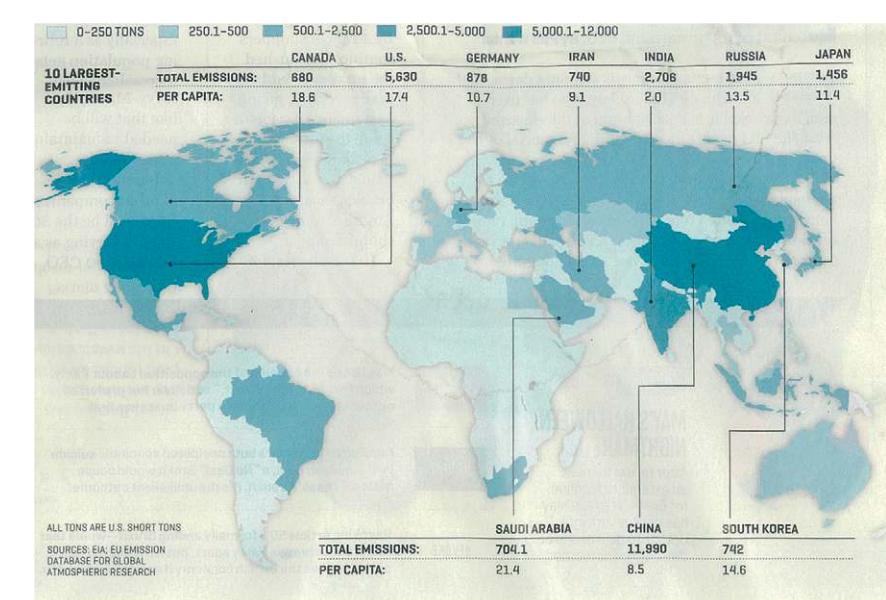
Despite increased calls to reduce global carbon emissions in light of climate change, energy-related carbon dioxide emissions worldwide rose 1.7% last year, hitting a record high (IEA, 2018). It is the fastest rate of growth since 2013. While emissions declined in Europe, they were up in big G20 economies like the US, China and India (Fig 1). Coal, especially in Asia, played a significant role in the increase. At the same time, it is worth noting that ac-

cording to 2017 data, the US still produces twice as much as carbon dioxide per capita as China and nearly nine times as much as India, highlighting the increased environmental impact of higher standards of living. All of this means the Paris Climate Agreement's goal of limiting the global temperature increase to 1.5 degrees Celsius could be a pipe dream if energy investments worldwide do not change.

The economy-wide changes needed to attain a low-carbon future are enormous: a massive reallocation of capital is needed, which presents unprecedent risks and opportunities to the financial system. The International Energy Agency estimates

that a low-carbon transition could require \$3.5 trillion in energy sector investments every year for decades – twice the current rate. Under the agency's scenario, in order for carbon emissions to stabilize by 2050, nearly 95% of the electricity supply must be low carbon, 70% of new cars must be electric, and the carbon-dioxide intensity of the building sector must fall by 80%. For markets to anticipate and smooth the transition to a low-carbon world, they need information, proper risk management and coherent, credible public-policy frameworks. That could be strengthened by central banks and monetary authorities.

Figure 1: Annual CO₂ emissions per country (tons of CO₂, 2017)



CLIMATE CHANGE, A LOW-CARBON FUTURE AND LIABILITY AND REGULATORY RISKS

The investment community faces several kinds of risks as a result of such market-based and regulatory actions. Regulatory risk is most relevant to the financial sector, followed by liability or litigation risk, and finally, reputational risk. These risks are interlinked and interdependent and may encompass physical risks from the adverse impacts of climate change such as natural disasters. Anbumozhi (2017) identified three risk categories for G20 economies: (i) Physical risks include the impact on insurance liabilities and financial assets that result from climate- and weather-related events such as floods and storms which damage property or disrupt trade. The consequences are the greatest for the insurance sector, but also extend more broadly. (ii) Liability risks occur when parties that have suffered loss or damage from the effects of climate change seek compensation from parties they hold responsible. Such claims could come decades in the future, creating liabilities for fossil-fuel extractors and emitters and their insurers. (iii) Transition risks are the financial risks that could result from the process of adjustment towards a lower-carbon economy. Changes in policy, technology, and physical risks could prompt a reassessment of the value of a large range of assets as costs and opportunities become apparent. Particularly rapid repricing could threaten financial stability.

When financial institutions are unprepared to assess or respond to the low-carbon risks described above, they may face additional legal risks from inaction (OECD, 2016). Further, transition risks in

the financial sector are closely linked to adjustments in real sectors and can be triggered by:

- mandatory or voluntary changes in emission-control policies that companies need to comply with, possibly entailing additional costs;
- declining profitability and cash flows of projects underwritten by financial institutions, resulting from higher capital and operating expenditures required to mitigate and adapt to climate change;
- low-carbon technologies and innovations that render previous technologies or products financed by financial institutions obsolete; and
- a shift by consumers away from high carbon-emitting products.

»The economy-wide changes need to attain a low-carbon future are enormous.«

Whether driven by unanticipated policies, technological developments or market preferences, the shift to a low-carbon future will cause a system-wide societal adjustment, during which certain sectors are likely to lose out. For example, respecting the 20 C threshold in temperatures will require a large portion of existing reserves of coal, oil and gas to remain in the ground,

which will be written off the balance sheets of the companies that own them. Other physical assets that could become stranded include part of the fossil fuel-driven electricity-generation capacity stock, residential housing, real estate, transportation infrastructure and other forms of carbon-intensive industrial technology (Anbumozhi et al, 2018). Such asset stranding will not only lead to economic losses and unemployment, but will also affect the market valuation of the companies that own the assets, thus negatively impacting their investors, and potentially triggering cascade effects throughout the deeply interconnected financial system (Table 1).

Hence, the changing role of central banks and monetary authorities is to find a gradually shrinking window of opportunity that would allow societies to achieve a rapid transition to a low-carbon economic

system, while avoiding excessive economic losses and financial instability.

ROLE OF CENTRAL BANKS IN CATALYSING PRIVATE FINANCE FOR A LOW-CARBON TRANSITION

Dikau and Volz (2018) distinguished between central banks' responses to environmental externalities affecting their traditional core responsibility of safeguarding macroeconomic and financial stability, and an activist role for central banks in supporting the development of a low-carbon economy. They also took climate risk into account in the design of monetary policy and financial regulation in the pursuit of the traditional goals of price and financial stability. This can be described as the passive aspect of green central banking because, in pursuing their established goals, central banks may need to incorporate environmental factors

Table 1: The trade-offs in transition to a low-carbon future

| | No low-carbon transition | Rapid or orderly transition | Abrupt transition |
|------------|--|--|--|
| Short term | No stranded assets | Minimal stranding of assets | Stranded physical assets (e.g., fossil-fuel reserves) and stranded financial assets (e.g., loss in market valuation and cascade effects) |
| Long term | Climate-induced damages to productive assets, climate-related financial losses | Minimal climate-induced damages to physical and financial assets | No significant climate-induced damages to physical and financial assets |

into existing frameworks, e.g. into macro-prudential frameworks, without pursuing a low-carbon agenda. On the other hand, central banks may be mandated to actively use the tools at their disposal to promote green investment or discourage brown investment and play a developmental role.

Central banks in developing and emerging economies in Asia have been at the forefront of using a broad range of instruments to address environmental risk and encourage low-carbon investment. Since 2015, central banks in advanced economies have started to address the implications of low-carbon investment for monetary and financial stability. The Bank of England has played a central role in raising awareness of the implications of low-carbon transition risks amongst central banks. The pioneering central banks apply the following policy instruments.

Disclosure requirements

Effective disclosure requirements for banks and other financial institutions of low-carbon project-related risks can play a central role in ensuring that financial institutions correctly price in the impact of low-carbon policies. TCFD disclosure requirements are a central element of forming a response to climate and environmental risk, since a lack of information on the risk exposure of financial institutions has consequences for financial stability because the misallocation or mispricing of assets may cause abrupt price corrections in financial markets later (FSB TCFD, 2017).

Environmental and social risk management standards

Similar to disclosure requirements, financial regulation that endorses mandatory

environmental and social (E&S) risk management standards requires financial institutions to incorporate E&S risk factors into their governance frameworks. To enforce climate-related risk management beyond disclosure, green E&S risk management standards may also establish E&S rules for banks' lending practices by requiring the assessment of these risks, as well as considering the potentially harmful environmental effects of new financial services and products. Furthermore, mandatory green risk-management standards could oblige banks to include an assessment of E&S risks in the loan origination process as a criterion based on which loans are extended. This would likely also have allocative consequences by reducing the flow of finance to polluting and energy-intensive firms and enhancing the financing of greener projects (Huxham et al, 2017).

Reserve requirements

Reserve requirements determine the minimum amount of reserves that commercial banks must hold. They could be calibrated to create incentives leading to the promotion of green assets or make brown lending less attractive. Differential reserve requirements that are linked to the composition of banks' portfolios, allowing lower (higher) required reserve rates for portfolios skewed towards greener, less carbon-intensive assets (brown, carbon-intensive assets) could influence the allocation of credit and promote green investments (Ng, 2018).

Climate-related stress testing

Climate-related stress tests can fulfil the task of assessing the potential impact that natural hazards may have on the economy,

the health of individual financial institutions, and the financial system as a whole. Apart from enabling the evaluation of the resilience of the financial system to adverse shocks, climate-related stress tests would also be necessary to calibrate green macro-prudential policy instruments and to allow for the incorporation of the identified vulnerabilities into capital buffers, risk weights, and caps (Amerasingh et al, 2017).

»When financial institutions are unprepared to assess or respond to the low carbon risks, they may face legal risks from inaction.«

Countercyclical capital buffers

Countercyclical capital buffers are used to mitigate the financial cycle and can be calibrated with regard to environmental risks to ease the potential effect of pricing in a 'carbon bubble' – the expected sudden repricing of carbon-intensive assets due to stricter emission targets and environmental policy (UN Environment, 2017).

Differentiated capital requirements

Through capital requirements, financial regulators require financial institutions to hold a certain percentage of capital for risk-weighted assets, which is usually expressed in the capital-to-risk (weighted) assets ratio. Capital requirements could theoretically differentiate asset classes based on sustainability criteria and assign higher risk weights to carbon-intensive assets in anticipation of future negative and sudden price developments (World Bank, 2018).

MONETARY POLICY OPERATIONS AND THE FINANCING OF A LOW-CARBON FUTURE BY CENTRAL BANKS

There are several ways in which central banks and monetary policy authorities can engage their supervisory bank with the low-carbon transition (table 2). First, they can favor assessment of climate-related risks, both for single institutions and at the systemic level. This is the strategy currently implemented by some central banks in high-income countries. Second, they can employ policy tools at their disposal to mitigate climate-related risks and support the development of low-carbon activities. While several examples of proactive behavior by central banks are available in emerging G20 economies, this approach has not yet been implemented systematically.

POLICY AND VOLUNTARY ACTIONS DRIVING LOW-CARBON DISCLOSURE

For banks, owners and managers of assets, the quality and availability of relevant information is one of the key barriers to incorporating climate issues into their investment processes. In part to address this

Table 2: Interventions by central banks and financial regulators in support of private financing of the low-carbon transition

| Approach | Concept | Current application |
|---|---|---|
| Assessment of climate-related risks | Apply methodologies to identify and measure climate-related risks | De Nederlandsche Bank Bank of England |
| Disclosure of climate-related risks | Develop standard methods of climate-related risk reporting | Task Force on Climate-related Financial Disclosures |
| Low carbon-aligned prudential regulation policy | Use prudential regulatory tools, e.g., reserve and capital requirements to banks lending to low-carbon projects | People's Bank of China Banco Central do Brasil |
| Green central bank financing | Provide additional/subsidized liquidity to banks lending to low-carbon activities | Bank of Japan Bangladesh Bank |
| Lending quotas | Impose a minimum proportion of bank lending to flow to low-carbon sectors | Reserve Bank of India Bank of Indonesia |
| Inclusion of low-carbon criteria in monetary policy | Include low-carbon criteria in the evaluation of overall risk of an asset purchased or accepted as collateral | State Bank of Vietnam |
| Green quantitative easing | Purchase green assets as part of quantitative easing programs | European Investment Bank |

deficiency, the Financial Stability Board Task Force on Financial Disclosure (FSB TCFD) issued its final report in June 2017, providing recommendations on low-carbon project-related financial disclosures that are applicable to organizations across sectors and jurisdictions. If adopted widely, the recommendations will normalize and improve the standards of corporate low-carbon risk disclosures, allowing investors to better assess their own climate-related portfolio risk and provide this information to their clients and beneficiaries. The FSB TCFD report knitted existing frameworks into a single framework for disclosure on the assessment and management of climate-related risks and opportunities and encouraged board-level engagement with the issue. It strongly recommended using scenario analysis techniques as part of the process. The framework contains the following key elements (FSB TCFD 2017):

- adoptable by all organizations;
- included in financial filings;
- designed to solicit decision-useful, forward-looking information on financial impacts; and
- strong focus on risks and opportunities related to the transition to a lower-carbon economy.

The recommendations focus on four key themes that are aligned with how organizations operate: governance, strategy, risk management, and metrics and targets. The themes are fleshed out with recommended disclosures that organizations should include in their financial filings in each of the four areas, to provide investors and other stakeholders with information that helps them understand the reporting organization's assessment of its climate-related risks and opportunities. The dis-

closing organizations will also benefit from the process, gaining a better understanding of the real financial implications of climate-related risks and their potential impacts on business models, strategy, and cash flows.

The TCFD highlights scenario analysis as its preferred tool for producing forward-looking information with respect to assessing climate risks and opportunities in a way that enhances the robustness and flexibility of strategic plans. It also believes such information is important for investors and other stakeholders in understanding how vulnerable individual organizations are to climate-related risks, and how such vulnerabilities might be addressed.

»Disclosing organizations will gain a better understanding of the financial implications of climate-related risks.«

CONCLUSION

G20 policymakers now face the challenging task of ensuring a structural shift to a low-carbon economy while concurrently

safeguarding economic prosperity and the stability of the financial system. Achieving this goal will require financial markets and institutions to start considering climate-related risks in their financing decisions. G20 central bank governors and monetary authorities can contribute to this process in several ways. First, they can support measures to improve financial markets' ability to consider climate-related risks, e.g. better disclosure of such risks. Second, central banks and financial regula-

tors should further deepen their activities in assessing climate-related financial risk exposures of their regulated firms, including what data and methods they are using in assessing these risks, and take appropriate actions if prudential risks are found to be material. Finally, central banks might wish to consider whether they should account for climate-related factors in determining the eligibility of assets for their asset purchase programs or as collateral in their market operations.

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With or without you

How the G20 could advance global action toward climate-friendly sustainable development

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The German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE) is one of the leading research institutions and think tanks for global development and international cooperation worldwide. DIE's work is based on the interplay between Research, Policy Advice and Training. DIE is building bridges between theory and practice. Research at DIE is theory-based, empirically driven and application-oriented.

With a collective responsibility for 80% of global greenhouse gas emissions, while representing 80% of global wealth, the countries of the G20 must throw their weight behind the implementation of both the Paris Agreement on climate change and the 2030 Agenda for Sustainable Development. In the past, the G20 has demonstrated it can do that. The G20 Summit in November 2015 in Antalya, Turkey, provided strong support for the climate agreement signed a month later at the UN Climate Change Conference (COP21) in Paris. In 2016 in Hangzhou, China, the G20 adopted an Action Plan on the 2030 Agenda and committed to "further align its work" with the 2030 Agenda. Even though both agendas have emerged in the multilateral context of the United Nations system, the G20 is expected to exert strong political leadership to address global climate change and to achieve sustainable development.

Yet, since 2017 the G20 has struggled to provide such leadership, as support for multilateral commitments, especially those involving ambitious climate actions, appears to be fading. Crucially, opposition to strong multilateral climate policy in the US and Brazil resorts to outright climate denialism at the highest levels of government. These developments are challenging the G20, and BRICS and the G7 for that

matter, to sustain support for multilateral commitments on climate and sustainable development. The rise of populist and unilaterally minded parties in European club member countries may further the risk of sidelining climate- and sustainability-related issues in the G20 process. This does not bode well at a time when G20 support could be a vital ingredient for the success of multilateral climate negotiations. These are under immense time pressure to achieve the target of limiting the global temperature rise to 1.5°C, which is generally considered necessary to limit dangerous climate change.

In this article we analyse the ways in which the G20 has supported climate and sustainable development action to date and how current political and technical challenges could be overcome in order to strengthen such support. Following our analysis,¹ we identify four ways forward that should be conducive to harnessing the G20's economic weight and political clout to push more ambitious global action towards climate-friendly sustainable development, in spite of apparent discrepancies between domestic agendas and global understandings.

MULTILATERALISM IN CRISIS?

The successful conclusion of two major multilateral processes at the end of 2015 – the adoption of the 2030 Agenda with its comprehensive package of Sustainable Development Goals (SDGs) by the UN General Assembly in September, and the adoption of the Paris Agreement under the UN Framework Convention on Climate Change in December – provided reassurance to proponents of multilateral governance around the world. It underscored

the capability of the multilateral system to generate vision and consensus about joint goals among a broad range of stakeholders in view of global challenges.

»The tide has been turning against multilateral cooperation in recent years.«

All the same, the tide has been turning against multilateral cooperation in recent years, showing a surge in nationalist populism that thrives, among other things, on outright climate denialism. While this does not automatically trigger the oft-touted "death of multilateralism", political changes in major countries such as the US and Brazil cannot be ignored. Furthermore, populist parties and nationalist movements have been on the rise in many European countries, too.

It is against this backdrop that club approaches to global governance, as epitomized by the G20, but also BRICS and the G7, tend to look more attractive again.² However, empirical observation suggests that the major obstacles to consensus and greater ambition within the exclusive G20 group reflect those prevalent in the universal setting of UN conference halls and involve the same protagonists. Least-developed countries and other non-G20 par-

ties do play their part in multilateral negotiations, but their interventions wield less influence compared with the diplomatic bargaining between G20 players such as the US and China, the EU and Turkey, or Japan, Russia, and Saudi Arabia.

Accordingly, G20 minilateralism as such is no panacea to overcoming the structural barriers that stand in the way of more ambitious climate policy or a more comprehensive implementation of SDGs. Indeed, the G20 should not be considered a global steering committee. Rather, it represents one distinct component of a complex, non-hierarchical global governance architecture. Ultimately, it offers a distinct space to enhance political dialogue in a geopolitically charged context. This provides valuable opportunities to build trust not only between leaders, but also between government officials who participate in the G20's workstreams and ministerial meetings. Procedurally overcharged multilateral negotiations often fall short of such opportunities. That additional space for focused dialogue provides the basis on which G20 governments can create club benefits between them and thereby provide a conducive environment for bargaining among influential powers (Falkner, 2016). That, in turn, can help consensus-building that can spill over into multilateral arenas and facilitate the implementation of agreed policy objectives internationally and domestically.

The G20 process thus creates complementary opportunities to move things ahead by setting agendas, defining strategic priorities and reiterating commitments. Belonging to the club, G20 leaders can be compelled to assume a greater responsibility, not only for their countries but also for the global common good, given the

club's economic and consumptive power. While the G20 comprises only a small club of countries, these jointly produce roughly 80% of global greenhouse gas emissions and similar shares of global GDP and of international trade.

G20'S TRACK RECORD ON CLIMATE AND SUSTAINABILITY

Over the years, the G20 has broadened its agenda beyond issues of financial regulation, structural policies and international trade. The Korean G20 Presidency in 2010, for example, put a strong focus on development issues and established the Development Working Group. During the Chinese G20 Presidency in 2016, the G20 adopted the "Action Plan on the 2030 Agenda for Sustainable Development" and pledged to "further align our work with the universal implementation of the 2030 Agenda". The G20 also made recurring commitments to support multilateral climate negotiations and phase out fossil-fuel subsidies. Climate-related issues moved up the list of G20 priorities after the Mexican G20 Presidency in 2012 highlighted the economic impacts of climate change and founded a study group on climate finance. During the Turkish Presidency in 2015, the G20 provided support for the subsequent climate negotiations in Paris, and Finance Ministers and Central Bank Governors emphasized climate risks for the financial sector.

Within the G20, climate and sustainable development issues are discussed both in the Sherpa and Finance tracks (see Figure 1). During the Japanese Presidency, for example, climate-related issues were not only discussed in the Climate Sustainable Working Group but also in the Infrastructure Working Group, which puts a strong

emphasis on climate-friendly “quality” infrastructure. Green finance issues, in turn, are typically discussed in the finance track. Given the breadth of the 2030 Agenda, almost all working groups can contribute to its implementation. The Action Plan on the 2030 Agenda, therefore, tasked the Development Working Group “to act as a coordinating body and policy resource for sustainable development across the G20”, thereby seeking to enhance policy coherence across the different G20 work streams. The engagement groups of the G20, such as think tanks (T20), business (B20), labour (L20), women (W20) and civil society organizations (C20), also provide strong backing for G20 action on climate and sustainable development.

Nevertheless, the G20’s support for multilateral commitments to climate action and sustainable development appears to be fading. While the German G20 Presidency succeeded in keeping momentum

with regard to the implementation of the 2030 Agenda by agreeing, among other things, a “Hamburg Update” of previous commitments, it was less successful with regard to its climate agenda (Scholz & Brandi 2018). Building on the outcomes of the 2015 G7 summit in Elmau, the German G20 Presidency sought also to put a strong emphasis on climate policy. Yet, this effort was undermined by the new US president, as he backtracked from previous climate commitments.

Ultimately, the German G20 Presidency decided to sideline the US and adopt the ambitious “G20 Hamburg Climate and Energy Action Plan for Growth” as “G19+1”. Observers at the time hailed this outcome as an important political signal, given the fear that other countries might follow the US. However, in light of waning support for climate policy and international cooperation, the “G20 minus X” option might well prove a slippery slope, accidentally invit-

ing more countries to deviate from a G20 majority.

While climate and sustainability-related issues did not figure very high on the agenda of the Argentinian G20 Presidency in 2018, the Japanese Presidency showed more ambition. On climate, it intended to support stronger climate action at the Osaka G20 summit, by working with non-state actors and by enhancing climate financing, among other measures. The outcomes of the Japanese G20 Presidency on climate, however, have been unambiguous. The level of ambition seems to be higher during the Saudi Arabian G20 Presidency, which started in December 2019, as it includes the goal of “safeguarding the planet” as one of three priority areas.

Nevertheless, beyond commitment on paper, implementation of these commitments at home and outside G20 meetings is essential. While the 2030 Agenda tends to be less controversial than the processes around the Paris Agreement, three G20 members have not yet submitted a Voluntary National Review (VNR) (the US has not volunteered a date for reporting; Russia volunteered for 2020; China volunteered in 2016, but the full review is not available; the EU is not required to report, but volunteered to present its progress on the SDGs in 2019). Moreover, Russia and Turkey have yet to submit their first Nationally Determined Contributions (NDC) under the Paris Agreement, Turkey has not yet ratified the agreement and the US filed a withdrawal notification at the end of 2019.

MOVING FORWARD AGAINST THE ODDS

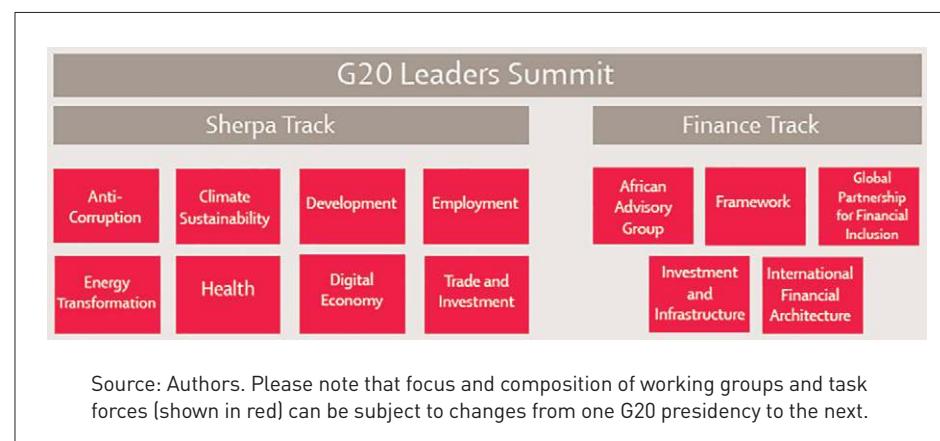
It is against this background that we suggest four pathways for action to foster climate-friendly sustainable development. Pertinent actions that could be of par-

against the current trends of the national and international political environment.

»Implementation of these commitments at home and outside G20 meetings is essential.«

First, it would be beneficial to focus on the multitude of interactions between climate and sustainable development that are essentially synergistic. Bottlenecks caused by different views and priorities among G20 members could be overcome by focusing on actions with multiple co-benefits. In that sense, we propose that the G20 emphasizes specific issue-centred policies that are compatible with the objectives of the Paris Agreement and 2030 Agenda, but are not considered primarily as “climate policy” or “sustainability policy”. Indeed, many climate actions promise real benefits in terms of job creation, economic savings, competitiveness, and improved well-being more generally (New Climate Economy, 2018). This would relate, for instance, to investments in sustainable infrastructure in the context of urbanization in a way that is climate resilient and compatible with sustainable development. Pertinent actions that could be of par-

Figure 1: G20 working structure during the Japanese Presidency in 2019



ticular interest to G20 members include, *inter alia*, expanding renewable energy generation to strengthen energy security, promoting energy efficiency to boost economic competitiveness, collaboration on innovations in low-carbon technologies to ensure future advantages in these areas, or cutting fossil-fuel subsidies to free budget resources for social policies. At a time of increasing nationalism, often coupled with climate change-denialism, advancing such practical initiatives by the full G20 may ultimately prove more effective than G20 minus X approaches, which could undermine the G20's cohesion and legitimacy.

»Many climate actions promote real benefits.«

Second, we encourage the G20 on domestic levels and in the G20 workstreams to embrace non-state and subnational actors as strategic partners in building capacity, strengthening implementation locally and globally, and boosting transnational cooperation. Indeed, engaging non-state and subnational actors could help to secure support and continuity on key issues even in G20 minus X situations. For instance, when the United States announced its intention to drop out of the Paris Agreement, subnational and non-state US actors united under "We Are Still In", thereby helping to maintain continuity of climate action and engagement domestically and internationally. Empirically, cli-

mate and sustainable development action by non-state and sub-national actors has been growing rapidly around the world, becoming more and more effective and filling some of the gaps left by states. In an increasingly complex world, the support of both state and non-state actors is essential (Chan, Brandi, & Bauer, 2016). It could help G20 member states to find more efficient solutions to domestic and global challenges and ensure that efforts in specific development areas do not hinder progress in others. Promising examples such as the regular meetings of the Development Working Group with the Engagement Groups could also be adopted by other working groups of the Sherpa and Finance tracks.

Third, we recommend that G20 working groups and thematic workstreams draw leaders' attention to their respective priorities by co-producing issue-specific deliverables jointly across working groups. This would help to overcome policy silos and increase ownership and uptake of compartmentalized issues beyond the "usual suspects" of the policy field in question. One promising example is the co-production of deliverables on quality infrastructure during the Japanese Presidency by the infrastructure, anti-corruption and development working groups.

Finally, we call upon experts and colleagues within the Think 20 (T20) Task Forces and beyond to concentrate their efforts on joint themes, rather than further expanding on increasingly specialized topics and policy recommendations. While there is undoubtedly a need for more research and specialized policy advice, the inefficacy of the G20 hardly results from a lack of knowledge and analy-

sis. Indeed, the proliferation of ever more policy briefs, all of which compete for the attention of Sherpas, Finance Deputies and working group delegates, may obscure the proverbial wood from the trees. It should be worthwhile not only to call upon ministries to bridge policy silos but also to work across research silos. This may prove more labor-intensive than writing the next policy brief that appears topical to any given task force. However, putting heads together across task forces should help to identify the key areas suitable for the issue-centered approach called for

above, to create aggregate messages that speak to a number of G20 working groups rather than only the obvious silo-counterpart, and thereby to gain traction within the G20 process. In that regard, to have a stronger impact, the T20, as a transnational network, could detach its working approach from the G20 calendar, set the tone for cross-group collaboration, and start to shape thematic priorities well ahead of the official G20 process.

This article is a revised and updated version of Bauer, Berger & Iacobuta (2019).

¹ This briefing paper builds on the T20 conference "Fit for purpose? Revitalizing climate and sustainability issues in the G20" that convened in Berlin under the "Chatham House Rule" on 20 March 2019. It was co-hosted by the German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE) with the Institute for Global Environmental Strategies (IGES), Japan, the Mercator Research Institute on Global Commons and Climate Change (MCC), and the global Sustainable Development Solutions Network (SDSN).

² For an assessment of the potential and challenges of the G20 see Berger, Cooper & Grimm (2019).

The diet of the future

The challenge of creating a healthy and sustainable diet

The author:



José Luiz Chicoma

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There is no viable future for the planet if humanity does not successfully shift toward a diet that is both healthy and sustainable. We've been focused on the first objective for decades, so we're probably pretty close to achieving this goal, right? Wrong. The "triple burden" of malnutrition is global, and it's getting worse: More than 820 million people experience hunger.¹ More than a quarter of the global population lacks the necessary nutrients in their diet.² Across all continents, food insecurity is more prevalent among women than among men. One out of every five school-age children and almost two out of every five adults are overweight or obese, and obesity currently causes more than 4 million deaths worldwide.

Now what if we add the additional challenge of making our diets not only healthy, but sustainable? The complexity of the potential solutions increases exponentially. Policymakers, politicians, legislators and experts around the world are struggling to address these issues. If humanity has been unable to improve the indicators associated with global hunger and nutrition, how are we going to reduce the almost 37% of greenhouse gases that are produced by the food systems that support our diets?³ How can we shift away from the current focus on monocultures, one of the

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Ethos Public Policy Lab transforms research and experiences into clear and concrete public policy recommendations that address the most pressing problems and challenges facing development and progress in Mexico and Latin America. From innovative economies to sustainable food systems and transparent institutions, we encourage positive change to further economic, social, and political development.

primary causes of reduced biodiversity and the increased extinction of species.⁴ How can we ensure that our agricultural practices do not have devastating impacts on soil and water,⁵ as current practices have caused decreased productivity across almost a quarter of all land area, use 70% of freshwater resources, and are major contributors to water pollution?⁶

Although we're decades behind where we should be, the last few years have seen the emergence of concrete proposals to support the shift towards the sustainable and healthy diets that humanity so desperately needs. The "planetary health diet" proposed by the EAT-Lancet Commission⁷ last year grabbed headlines around the world.⁸ Much of this media attention was due to the commission's recommendations regarding the consumption of no more than 98 grams of red meat per week, a significant reduction for North American consumers, whose current dietary patterns include almost 300% more red meat than the recommended intake. However, the response to and coverage of the publication helped position the importance of diet within public opinion.

Last year the FAO also proposed nutritional guidelines in its publication Sustainable and Healthy Diets: Guiding Principles. In addition to being healthy and sustainable, the diets proposed in this document are socially and culturally acceptable and economically accessible. A handful of countries, including France, Germany, the Netherlands, Norway and Denmark, have joined the cause, publishing their own nutrition and sustainability guidelines.

These efforts all represent important progress, but are they too little too late? Identifying and supporting a diet that

complies with the many nutritional and environmental variables and that is also affordable, safe for consumers, fair for workers and socially and culturally acceptable is something entirely new for policymakers.

Although the slow response is partially due to the complexity of the issue, it is also rooted in a structural flaw in existing academic approaches and professional development: the lack of a systemic understanding of food systems. Nutrition, agriculture and the environment have traditionally been separated and treated as isolated disciplines, with specialists that focus on a deep understanding of their particular vertical, rather than the various horizontal, interconnections that exist among them. This is also reflected in the organization of national, state and local governments, where siloed ministries and agencies focus on public health, agricultural development and the environment, respectively, without any coordination or cooperation across these three focuses.

Today's reality is also the result of the extreme simplification of the issue of food and nutrition that occurred following World War II, which led to a global focus on a single indicator: the number of people that are hungry, measured using caloric intake.⁹ This produced an extreme increase in intensive agriculture focused purely on yield. Although this system successfully increased yields, it also contributed to global warming, destroyed soil and contaminated water sources with agrochemicals, drastically depleted biodiversity and, ultimately, provided empty calories to feed an ever-increasing population, but did not provide the key nutrients necessary for a balanced diet.

If we're lucky, a new generation of academics, scientists and policymakers that have a systemic vision of food systems will take on these challenges, although this will be dependent on the allocation of additional public funds to universities and research centers.

»Nutrition, agriculture and the environment have traditionally been treated as isolated disciplines.«

However, the health and well-being of the planet (and of humanity) can't wait that long. In the short term, it is urgently necessary to adapt our governments to reflect a systemic, overarching vision of food systems. This includes national, state and local food councils that include representatives from all government agencies involved in issues of food and nutrition, as well as representatives from civil society, academia, individual experts and more. It is also necessary to implement concrete reforms to the policy decision-making process. In the best case scenario, this would

take the form of dedicated food system ministries; in the worst case, inter-ministry commissions that are empowered with decision-making and execution capacities.

The urgent need for systemic action is clear, reflected in the increasingly alarming reports regarding the future of the planet and the destruction of ecosystems¹⁰, agriculture and biodiversity¹¹ and food and nutrition.¹² Although wealthy countries are unlikely to significantly adjust their diets, to the detriment of both people and planet, immediate steps must also be taken to influence food transitions around the world in order to ensure that low- and middle-income countries do not adopt the harmful diets of wealthy countries, which are high in calories, fats, sugars and animal products.

Urgent action must also be taken in an effort to make the most of a window of opportunity that has emerged: the United Nation's Sustainable Development Goals (SDGs). The SDGs present a systemic vision through the indicators associated with hunger, nutrition, agricultural development, biodiversity, the environment and resource sustainability. The agenda also incorporates significant global cooperation mechanisms and clear goals and has an unprecedented level of convening power among governments, civil society, academia, individual experts and the private sector.

And perhaps that last point, that convening power, is also the primary weakness of the SDGs: Who, exactly, has a seat at the table? Ideally, everyone's voice would be heard. It is impossible to create scalable solutions without including the enormous companies responsible for creating the food products that are available

to the general public. But how can these actors be involved in the process without creating conflicts of interest?

Most of the solutions that support a shift towards healthy and sustainable diets stand in direct opposition to the financial interests of multinational companies that offer ultra-processed food, fertilizers, food processing services, etc. Supporting the diet of the future must include the implementation of public policies and regulations that drastically change food incentives, as well as what food is available, how it is produced and how it is made.

»The diet of the future is both healthy and sustainable.«

These measures include national guides for healthy and sustainable diets, taxes on ultra-processed foods that are then used to subsidize healthy products, clear and obvious health warnings on ultra-processed foods, regulations to encourage exclusive breastfeeding for the first six months of a child's life and mixed breastfeeding up to and beyond two years of age, regulation of agrochemical residue limits on foodstuffs, restrictions that ensure that only healthy and sustainable foods are available at schools and hospitals, significant disincentives to decrease red meat consumption and many more.

Efforts to implement these types of measures have already faced fierce oppo-

sition from industry around the world. An example can be seen in the recent efforts to implement measures that require clear warning labels on ultra-processed foods in Chile,¹³ Peru, Uruguay and Mexico as part of efforts to respond to the public health crisis of obesity and other food-related illnesses. In Mexico, supporters of taxes on sugary drinks and junk food even had to deal with government surveillance.¹⁴

The need for multiple solutions across various fronts is clear. Novel and innovative food solutions, such as the use of insects, algae and lab-grown meat, have the potential to offer nutritional and environmentally sustainable alternatives.¹⁵ It is important to rapidly deepen research and compare these new alternatives to existing vegetable and animal products, particularly in terms of quantifying nutrients, impact on ecosystems and the environment and ways to successfully achieve the acceptance of these alternatives based on the preferences, traditions and customs of each culture.

Many people have already heard of the Mediterranean diet,¹⁶ whose foundation is built on fruits, vegetables, herbs, nuts and whole grains, which are complemented by generous quantities of olive oil and fish, moderate amounts of dairy, chicken and eggs and limited amounts of red meat. There's also the new Nordic diet¹⁷ and the Mexican milpa diet.¹⁸ Based on local sustainable production, cultural preferences and traditional knowledge accumulated over the course of hundreds of years, each of these diets offers adequate alternatives within certain geographies. These regional diets have also attracted significant media attention, and this momentum should be used to implement clear public policies in

support of these diets, including sustainable and healthy dietary guides that incorporate clear metrics regarding nutrition and environmental impact.

This public attention must also be channeled to support other policies with both short- and long-term results, including awareness campaigns, the urban food agenda and food access, the drastic reduction of food waste and more.

The diet of the future is both healthy and sustainable. But it must also support successfully achieving the objectives of

all the Sustainable Development Goals, including through the implementation of regulations and new and adjusted incentives. Although these changes might have a negative impact on many industries, they represent a net positive for humanity and for the planet. In order to reach this objective, it is absolutely crucial for governments to be free from conflict of interest. Although all stakeholders should have a voice, governments must prioritize the well-being of their citizens over any and all commercial interests.

Putting climate and environmental protection at the heart of European policy

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The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) is responsible for a range of government policies that are reflected in the name of the ministry itself. The ministry has been working over 30 years now to protect the public from environmental toxins and radiation and to establish an intelligent and efficient use of raw materials, to advance climate action and to promote a use of natural resources that conserves biodiversity and secures habitats.

The 20s are a crucial juncture for global climate protection. In this decade, we must set the course for climate neutrality. Germany and the European Union have decided to become climate neutral by the year 2050. The German government has taken important steps in this direction with its Climate Protection Programme 2030 and its plan to phase out coal. The international community will make a pledge at the next UN Climate Change Conference in Glasgow in November: in compliance with the Paris Agreement, all states must by then present improved national climate protection targets. More than 100 states have already announced concrete plans to do so.

The EU, too, will play its part. With the "European Green Deal", the new Commission President Ursula von der Leyen has presented a proposal to once again make Europe a role model for global climate protection.

The European Green Deal is a smart, resolute, comprehensive concept. The Commission has outlined a roadmap to guide all areas socially and ecologically:

from industry and transport to agriculture and forests. Climate and environmental protection will thus take their proper place: at the heart of European policy.

This comprehensive concept points in a clear direction: climate neutrality by 2050. It offers planning security for both economy and society and opens up new opportunities for industries of the future. It is important to me that this ecological growth program is also socially just. I will work to achieve this.

The Commission also proposes raising the European climate target for 2030 to 50-55 percent. We should make the most of this opportunity. Such a step would not only accelerate the process of modernizing European industry, it would also encourage other major economies to do more to protect the climate. The message is clear: Europe takes climate protection very seriously. We are prepared to take a leading role in this area.

The European Commission proposals must now be translated into concrete laws, directives and regulations. Much of what the Commission has announced in its Green Deal will be negotiated during Germany's EU Council Presidency in the second half of 2020. I see an opportunity to make climate and environmental protection a future-oriented project that will unite Europe and offer a new sense of purpose.

It is inherently clear in climate protection that national answers do not suffice for global issues. That also applies to another global megatrend – digitalization. Digitalization offers enormous opportunities for climate and environmental protection – but it also harbors risks. For this reason, the Federal Environment Ministry will make digitalization and sustainabil-

ity focal points of the German EU Council Presidency.

»It is clear in climate protection that national answers do not suffice for global issues.«

Europe must define what sustainability means in the digital world. We urgently need a European approach that offers an alternative to unregulated monopolies, as in the US, and to total state control of data, as in China. Just as with climate protection, the standards set by the EU, the largest economic area on earth, can become a model for the rest of the world. One example of this is the Ecodesign Directive, which has advanced environmental protection worldwide. However, this directive – to somewhat overstate the point – is still preoccupied with refrigerators and is not yet fit for the digital age. What was once the television set is now the smartphone. That is why I will be working to develop new standards for durable, repairable and updatable digital devices – so national solutions become global solutions.

The European Green Deal offers the opportunity for a social and ecological, economically powerful and democratic Europe that promotes digital innovation and

protects its citizens – and thus sets global standards. We must seize this opportunity now.

Solidarity and the Green Deal

Delivering a social Green Deal to all of Europe's citizens

The author:



Frans Timmermans
Executive Vice-President
of the European
Commission

The institution:



The European Commission is the EU's politically independent executive arm. The Commission helps to shape the EU's overall strategy, proposes new EU laws and policies, monitors their implementation and manages the EU budget. The Commission's work is steered by a College of Commissioners, and led by its President.

Honourable Members, I've listened very carefully to this debate and I'm really excited by the fact that this Parliament has expressed such broad support for the European Green Deal. This is a great start of what is going to be quite a bumpy road, where we will need both institutions to concentrate on all the elements that we need to make the Green Deal work.

Let me say here today: I want to congratulate Greta Thunberg for having been nominated Person of the Year by Time Magazine. I think this is a great sign that this generation – our kids – are leading the way. And as a parent, there's nothing more beautiful than when you see that your kids are leading the way.

But that's not the only reason why I believe we need to act now. The reason I believe we need to act now is because the facts are staring us in the face. And I think if you are a responsible Member of Parliament, if you're in a responsible position in the Commission, if you're a citizen, if you're a parent, you do not have the luxury to ignore the facts. Look at what's happening in Greenland. Look at what's happening globally with our climate. Look at the desertification. Look at the erratic weather.

Look at the people suffering because of this erratic weather across Europe. Look at what's happening to our biodiversity as we speak. We do not have the luxury to ignore this anymore.

»Impact assessment will be an essential element of our analysis.«

And look at another thing that's happening. We are in the middle of the Fourth Industrial Revolution. That is going to change our economy, our industry whether we like it or not, whether we act or not. So the question we have to face today as Europeans is this: are we going to try and be masters of this momentous change, of this paradigm shift, or are we just going to let it happen? And then others will be the masters of it and we can just be the subjects of what others will decide. This is the fundamental question we have to answer.

And the Green Deal is not a blueprint. It's a roadmap. It's an extended open hand to you and to all the stakeholders, whether it's businesses, whether it's NGOs, whether it's trade unions, whether it's citizens, whether it's cities, whether it's regions to be part of a discussion of how we are going to reorganise our society in a just way, so

that it reflects the values we want to stand for.

And we need to do this because Mother Earth is fed up with this behavior. And you know, she was able to exist for millennia without human beings, she will be able to exist for other millennia without human beings. We better make sure we create an existence in balance with her, so that we can continue to exist as human beings for millennia. And this is the responsibility we have before our kids.

But let me make a point because it was said often: this is costly. Yes, but don't forget what the cost is of not acting. We see it every day. It was also said we have to be sure we take the right decisions. Yes, that is why every proposal the Commission is going to put on the table will be assessed for impact. Impact assessment will be an essential element of our analysis, but we will do this in a very, very speedy and comprehensive way.

For instance, to determine exactly what the reduction by 2030 should be, we want to have an impact assessment on that, but we want to be ready with that impact assessment early in the summer next year, so that the European Union is extremely well prepared, with a Climate Law for COP26 in Glasgow, so that we can lead the way.

I bring back a message from Madrid, the COP, where I'm going to go back and present the Green Deal tomorrow. The message is this: we need European leadership. The message is also this: some of us are insecure what we should do, but if Europe leads we might go in the same direction. I had meetings with Ministers of many countries saying: climate neutrality by 2050 is a good idea, we might do it the

same way. With the Chinese we're in debate. Are we going to have collective global leadership on this, yes or no? We need to work on that because if we do it together, the impact will be much bigger.

»If this is not a social Green Deal, the Green Deal will not happen.«

But at the end of the day, it is very important that this Parliament takes this into hand, and makes sure that Parliament has a leading role, together with the Commission, to convince our Member States in Council to do the right thing. And if we begin, by enshrining in law, that by 2050 Europe will be climate-neutral, then we can take steps back until today and just chart the map that we need to get there. And then we will discuss the measures we will need to take – whether it's on ETS, whether it's on emissions, whether it's on taxation, whether it's on all sorts of other measures to make our industries circular, to make sure that there are jobs in this new economy.

But finally, I want to add one thing which is very, very important. You know, the biggest risk here I see, is that those who

are most vulnerable in climate change, see themselves also as most vulnerable in the answer to climate change, so that they start resisting the Green Deal, because they feel that they are vulnerable. And at the end of the day, if they resist the Green Deal and they stop it, they will be the first victims of the consequences of not doing the right thing.

So that's why – and this is a fundamental point – if this is not a social Green Deal, the Green Deal will not happen. If this is not a Green Deal where the most vulnerable regions in Europe – coal-mining regions and others – do not see solidarity from other parts of Europe, it will not happen. So we need a level of solidarity with vulnerable individuals and vulnerable regions, to make sure the Green Deal can be delivered for all our citizens. And at the end, because "Man on the Moon" was quoted, so I obviously thought of the famous moon speech by John F. Kennedy, and let me just amend it slightly and end with that: "We choose to go for climate neutrality in 2050, and do the other things. Not because they are easy, but because they are hard. Because that goal will serve to organise and measure the best of our energies and skills. Because that challenge is one that we are willing to accept. One we are unwilling to postpone. And one which we intend to win." Thank you.

This text is from Executive Vice-President Timmermans' closing speech delivered at the European Parliament Plenary Session on the European Green Deal, in Brussels on December 11, 2019.

G20 governance of climate change through nature-based solutions

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The G20 Research Group is a global network of scholars, students and professionals in the academic, research, business, non-governmental and other communities who follow the work of the G20 leaders, finance ministers and central bank governors, and other G20 institutions. It is directed from Trinity College and the Munk School of Global Affairs and Public Policy at the University of Toronto.

INTRODUCTION

Nature-based solutions (NBS) is a relatively new concept in global governance. The International Union for the Conservation of Nature (IUCN) (n.d) defines NBS as "actions to protect, sustainably manage and restore natural or modified ecosystems that address societal challenges effectively, simultaneously providing human well-being and biodiversity benefits."¹ Much of the work on NBS is on urban environments, as the majority of the global population will be living in cities in the coming decades.² There are eight NBS principles, developed by the IUCN. They bring together existing ecological concepts while offering novelty in their focus on integration, on landscape scale and on coordinated actions that address complexity, including interactions between ecological, social, legal, institutional and political systems.³ NBS is therefore relevant to the UN 2030 Agenda's Sustainable Development Goals (SDGs), with SDG 13 on climate change at the center. NBS is estimated to provide 37% of climate mitigation until 2030.⁴ It is also important for adaptation

and resilience, including in regard to food security, public health and biodiversity.

The land use change, agriculture and forestry sector is particularly salient, as it accounts for 24% of global greenhouse gas (GHG) emissions, which rises to 37% if the global food system is included.⁵ Moreover, the agriculture sector's use of monocrops has led to the development of technical inputs to replace natural processes, which has led to an overuse of health-harming chemicals and fertilizers.⁶ It has also led to the use of assembly line-style factory farming and genetic modification of animals bred for human consumption, with its well-documented ecological, social and animal abuses. This homogenous and technocratic design is a leading cause of biodiversity loss, from soil microorganisms, to plants and trees, to wildlife on land and in the oceans (SDG 14 and 15). Agriculture accounts for three-quarters of global deforestation.⁷ Advancing NBS in this sector is therefore critical for planetary health.

THE ARGUMENT

The G20 accounts for 80% of global greenhouse gas (GHG) emissions, 80% of global trade in agricultural goods and 60% of the world's agricultural land.⁸ It includes the industrialized and emerging economies with the highest historic and projected emissions contribution – all of which are off track to meet the 1.5° C Paris Agreement target. Through an analysis of six dimensions of performance, developed at the G20 Research Group,⁹ this article shows that the G20 has performed minimally on climate change governance through nature-based solutions. This article does not seek to overstate the G20's potential, but shows

that there is an emerging trend at the G20 and an opportunity to advance NBS under the 2020 Saudi Arabian Presidency. It argues that it should do so in the context of rising inequality and with the aim of meeting the G20's second foundational mission "to make globalization work for all."

THE G20'S PERFORMANCE DOMESTIC POLITICAL MANAGEMENT

Civil society involvement

The G20's first official nonstate actor engagement group, Business 20, was created at its 2009 London Summit.¹⁰ Others followed, including Civil 20, Think 20, Youth 20, Labour 20, Women 20, G(irls) 20 and the Urban 20.

Of these, the B20 is the most powerful and influential. The G20 leaders' have chosen to attend the B20's meetings over the other engagement groups.¹¹ The B20 and the private sector are given significantly more attention in the G20's public communiqués than any other engagement group, receiving 57 mentions between 2008 and 2018. This is compared to 29 for the C20/civil society, 12 for the T20/academia/think tanks, 11 for the L20, six for the Y20 and five for the W20. This suggests that the G20's message of inclusiveness is imbalanced and continues to privilege already powerful actors over others. An example of this was on display at the 2012 Los Cabos Summit, which was noted for its greater inclusion of civil society organizations (CSOs) than previous summits. Yet CSOs were marginalized at the event, including at the media center, and their participation was limited in the summit process compared to groups like the B20, and even the T20, L20, Y20 and G(irls)20.¹² Moreover, despite the

growing influence of nonstate actors on the G20's agenda, members from non-economic engagement groups have expressed skepticism over their influence.¹³ This supports the observation that the rise of nonstate actors in global governance and their growing influence should not be interpreted to mean that nonstate actors are replacing the state, but rather that there is a "reconfiguration" of authority.^{14, 15}

»The G20's message of inclusiveness is imbalanced.«

Indeed, for comparison, the T20, a global network of think tanks, has had some influence but it has been limited. At the 2018 Buenos Aires Summit, the T20 presented 135 recommendations across several subjects to the G20 leaders. An analysis conducted by the G20 Research Group found that 33 of these recommendations were reflected at least partially or completely in the 128 commitments the G20 leaders made at Buenos Aires.¹⁶ Of these T20 recommendations, those reflected in the G20 communiqué were already aligned with the G20's existing agenda and approach to global governance. They were primarily economic, including on macroeconomic growth, global trade, job creation, the digital economy and global food security.

Conversely, none of the T20's recommendations on climate change, sustain-

able development, migration or governance were reflected in the Buenos Aires leaders' communiqué. Notably, these recommendations went beyond the G20's core framing of key issues, including on the food-climate link. Indeed, on food systems and agricultural production the T20 called for the G20 to coordinate with sub-national actors, especially cities, for the promotion of multistakeholder participation and for more research on the promotion of synergies. This included their two NBS-related recommendations to 1. Promote within the Intergovernmental Panel on Climate Change [IPCC] the need to improve guidelines and methods on estimating carbon sequestration by grasslands and other agriculture-related biomes with regionally relevant parameters for those estimations; and 2. Have the UN Food and Agriculture Organization's (UN FAO) Consultative Group for International Agricultural Research serve as a secretariat to coordinate these activities.

Continuing with the subject of agriculture and climate change, although a systematic analysis has not been conducted for the B20, a general observation is that the B20's recommendations to the G20 fall within the existing agricultural model, and are largely reflected in their public communiqués and commitments. This includes an emphasis on using technologies, such as biotechnology and digital technologies to increase yields while "maximiz[ing] resource efficiency [and] minimiz[ing] environmental impact."¹⁷ It also includes developing public-private partnerships, investing in infrastructure and educating consumers to build responsible consumption habits. The former two offer benefits to private actors, while the latter puts the

onus on individual behavioral change rather than systemic change.

Thus, while the G20 can be characterized as an innovative state-led informal summit club of world leaders with its network of nonstate actors, there is evidence that these powerful leaders are reinforcing oligarchic tendencies by entrenching the status quo, including in the agricultural and global food system.¹⁸ Given the proven climate, ecological, social and even economic harms (i.e. food price volatility, insecure land tenure of smallholders), the global food system is causing, the upholding of the status quo by the world's rich and famous is likely undermining progress on the SDGs and the Paris Agreement. For the wealthy G20 elite to maintain legitimacy in the face of rising inequality and growing social unrest due to climate inaction, including their continued support for the industries polluting the planet, it should promote a greater level of engagement with nonstate actors beyond the private sector.

Media attention to climate change

Many studies have been done on climate change communication in the media. According to one study, in four major emitting G20 countries, representing developed and emerging economies, the most frequent framing of climate change included responsibility, economic consequences, conflict and national positions. The least used was the human interest frame.¹⁹ In the United States, major newspapers used anti-climate change regulations, scientific uncertainty and benefits from climate change to promote climate denialism. Climate "believers" used framings such as scientific certainty and human development.

Similar patterns are observed on social media. There are different framings of climate change according to geography among G20 member states, with the largest references of climate change as a "hoax" in the US. This is consistent with the US withdrawal from the Paris Agreement.^{20,21} Much of the language of incivility and attacks on Twitter are used by climate change deniers.²² This misinformation is a source of public confusion. However, young people and Indigenous Peoples are also using social media to counter this narrative and to launch worldwide social movements in support of the scientific consensus on climate change.

Overall, there is uneven and fragmented coverage of climate change events and science globally.²³ This includes inconsistent reporting of extreme weather events²⁴ and a high degree of conflictual storytelling.²⁵

Public opinion polls

This is consistent with public opinion polls, which show that Americans viewed climate change as less of a threat than other G20 countries in 2019, with 59% of the population viewing climate change as a major threat.²⁶ Tied with the US was South Africa. This was followed by Indonesia at 56% and Russia last at 43%. At the top were South Korea, with 86%, France with 83%, Mexico with 80%, Japan with 75%, Argentina with 73%, Brazil with 72%, Germany and Italy with 71%, Canada and the UK with 66%, and Australia with 60%.

DELIBERATION

In its public communiqués, between 2008 and 2019 the G20 dedicated 225 paragraphs to climate change and 66 to energy

(including renewable energy, non-renewable energy and fossil fuel subsidies). On the environment, the G20 has dedicated 35 paragraphs to oceans and eight paragraphs to biodiversity. Also relevant is agriculture, with 155 paragraphs, and economic inequality with 111 paragraphs. To put this in perspective, all of these combined – 592 paragraphs – is much lower than the number of paragraphs dedicated to macroeconomic policy alone at 894 paragraphs.

Within the G20's climate change deliberations, there is one reference to nature-based solutions to climate change, as well as one reference to ecosystem and community-based approaches, and to traditional and Indigenous knowledge (which are elements of the eight NBS principles). Each of these was made at the G20's 2019 Osaka Summit. At Osaka, also relevant to NBS were increased references to climate adaptation, including disaster risk reduction for vulnerable communities and resilient infrastructure.

However, the first time the G20 referenced biodiversity and ecosystems was two years prior at its 2017 Hamburg Summit. There were five paragraphs on biodiversity on three subjects: the illegal trade in wildlife, sustainable agricultural production and food systems, and oceans.

Other NBS-related references included addressing forests in global climate negotiations (2010 Seoul Summit); agroforestry, a farming practice that combines forests with pastureland (2012 Los Cabos Summit); wastewater management for healthy oceans (2017 Hamburg Summit); and four references to the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context

of National Food Security (starting at the 2012 Los Cabos Summit).

»There is evidence that powerful leaders are reinforcing oligarchic tendencies by entrenching the status quo.«

The current G20 host, Saudi Arabia, has laid out nine ecological priorities for its 2020 presidency.^{27,28} These are: 1. Managing emissions for sustainable development; 2. Combatting land degradation and habitat loss; 3. Preserving the oceans; 4. Fostering sustainable and resilient water systems globally; 5. Promoting food security; 6. Cleaner energy systems for a new era; 7. Scaling up efforts for sustainable development; 8. Tourism as a force for human-centred economic growth (includes eco-tourism); 9. Promoting space cooperation (includes climate and ocean observation). Under the first priority, there is an explicit reference to "nature-based solutions such as reforestation and protecting

and restoring marine resources.”²⁹ It is not clear, however, how they define or understand “nature-based solutions.” This matters, as NBS goes beyond simply planting or preserving trees. It also requires a high degree of transparency and participation, including around who owns and controls the design and implementation of NBS, while also ensuring implementation is equitable and includes local, traditional and Indigenous knowledge.

Additionally, under priority two, the Saudi hosts acknowledged the GHG contribution of the land use and land use change sector of 24% (excluding pre- and post-food production systems, which raises the contribution to up to 37%).³⁰ This is a positive recognition with implications for the other priorities on oceans, and the water-food-energy (WEF) nexus. However, it only states that the G20 will promote “responsible agricultural investments,” with no explanation of what this means or how such investments will contribute to mitigating emissions, building resilience or avoiding entrenching inequality.

DIRECTION-SETTING

Preambulary priority placement

Over the 14 G20 summits, just four showed priority placement of climate change or the environment in its communiqués’ preambles. There were five summits that gave priority placement to economic inequality, or the G20’s second foundational mission to ensure globalization works for all. Yet no link was made between them.

On climate change, the first reference was at the 2009 Pittsburgh Summit. However, it did not appear until the 21st paragraph in a 31-paragraph preamble. Moreover, it called on the World Bank to take a leading

role in responding to climate change, thus deferring to an international development institution beyond the G20 to take climate action. Three other references to climate change came at Pittsburgh, at the end of the long preamble. One was in relation to phasing out “inefficient” fossil fuel subsidies, one was on green growth, and one was a second deferral (or, conversely, support for) the UN Framework Convention on Climate Change (UNFCCC) negotiations and the then upcoming Copenhagen Summit.

»There has been no priority placement for nature.«

The second was at the 2010 Seoul Summit, in paragraph three, with recognition that a vulnerable global economy has a negative impact on people and the environment. This was the first reference to economic inequality in relation to environmental goals.

The third was at the 2013 St. Petersburg Summit, in paragraph six, with a commitment to work together to address climate change and protect the environment. The second reference to inequality appeared here.

The fourth and final was at the 2017 Hamburg Summit, with a resolve, expressed in the first paragraph of the communiqué, to “tackle” climate change, along with a reference to raise global living standards.

The remaining two references to inequality came at the 2014 Brisbane Summit, “to deliver better living standards” and at the 2016 Hangzhou Summit, “to contribut[e] to shared prosperity.”

There has therefore been no link between climate change and wealth inequality, as measured by preambular priority placement. There has also been no priority placement for nature. This, combined with the minimal priority placement of climate change alone and the G20’s deferral of responsibility for climate change action to a multilateral development bank indicates weak performance on climate change.

Separate statement

On climate change, energy, the environment and sustainability, the following separate statements have been released since the G20’s start: the 2014 Brisbane Energy Efficiency Action Plan; the 2015 Antalya Action Plan on Food Security and Sustainable Food Systems; the 2017 Hamburg Update on Taking Forward the G20 Action Plan on the 2030 Agenda, the 2017 Hamburg Climate and Energy Action Plan for Growth, and the 2017 Hamburg Marine Litter Action Plan; and the 2018 Buenos Aires Update on Moving Forward the G20 Action Plan on the 2030 Agenda for Sustainable Development. Thus the first stand-alone statement related to climate change did not come until several years after the G20 leaders began meeting. Since then, apart from two summits, there has been a stand-alone document related either to sustainability, the energy transition and climate change, or the environment, but none yet on nature.

Issue linkages and causation

On nature, the G20 has made a link and causal connection between wildlife trafficking and marine litter to biodiversity loss. It also acknowledged the importance of risk management in the agriculture sector to protect biodiversity, but this link was not as strong as the recognition of the impact of wildlife trafficking and marine litter on biodiversity loss.

Facts affirmed

On climate change and nature, the G20 recognized the science of the IPCC and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) at the 2019 Osaka Summit. This matters, as the first key message of the 2019 IPBES report states that “nature-based solutions with safeguards are estimated to provide 37 per cent of climate change mitigation until 2030 needed to meet the goal of keeping climate warming below 2°C, with likely co-benefits for biodiversity.”³¹ It further states that NBS can be a cost-effective way to meet the SDGs.

Distinctive mission affirmed

The G20 did not make any link to biodiversity or nature with its first distinctive mission, to ensure global financial stability, or to its second mission, to ensure globalization works for all.

The closest connection the G20 has made regarding inequality and climate change is its commitments on climate financing and phasing out inefficient fossil fuel subsidies “while providing targeted support to the poorest.”

References in the communiqué at the 2019 Osaka Summit to “look into” nature-

based solutions, community-based approaches and traditional and Indigenous knowledge as alternative approaches to respond to the climate crisis holds some promise for a more multilevel approach to climate change governance. However, without stronger language and more specific and ambitious commitments caution is needed.

»A potential trend within the G20 reflects the broader global rise in attention to nature's role in the climate crisis.«

DECISION-MAKING

On nature and biodiversity, the G20 has made only five collective, future-oriented, politically binding commitments. On climate change it has made 90 commitments. This is followed by 82 on clean/renewable energy (including phasing out fossil fuel subsidies), 70 on other energy commitments (i.e. fossil fuels), and 69 on the environment (most on the marine environment). Another 25 commitments, categorized under other core subjects, such

as development, macroeconomic policy, health and trade, among others, referenced some aspect of environmental sustainability. Combined, the G20 has made 347 commitments on climate change, energy and the environment.

Just one of these commitments references "nature-based solutions." It was made at the 2019 Osaka Summit. The language of the commitment is weak, stating that the G20 "will look into...nature-based solutions" rather than committing to implement NBS. Similarly, it made one commitment to "look into...ecosystem and community based approaches," which fall under the NBS umbrella. Although this language is weak, combined with the Saudi priority on forests as a nature-based solution, this shows a potential emerging trend within the G20 club reflecting the broader global rise in attention to nature's role in the climate crisis.

DELIVERY

The G20 leaders' compliance with commitments from the 2019 Osaka Summit have not yet been assessed by the G20 Research Group. On the 2017 commitment that referenced marine biodiversity and ecosystems, the G20 scored -0.20 or just 40% compliance. On the one that referenced agroforestry, compliance was 68%. On the one that referenced forests, compliance was 65%. The average of these three nature-related commitments was 58%. This is lower than the G20's average compliance with the 31 climate change commitments assessed for compliance, at 69%; the nine food and agriculture commitments assessed, at 73%; and the 21 energy commitments (both renewable and non-renewable), also at 73%. It is lower

than the G20's overall compliance average across all issues of 71%.

DEVELOPMENT OF GLOBAL GOVERNANCE

In the G20's commitments on climate change the G20 mostly refers to the UNFCCC. In its clean/renewable energy commitments no international institution was referenced. In its non-renewable energy commitments it has referred to the Organization for Petroleum Exporting Countries, the International Organization of Securities Commissions, the International Energy Agency, the Organisation for Economic Co-operation and Development, the World Bank and the International Economic Forum. The B20 was also referenced here. On oceans, the regional institutions of the Asia-Pacific Economic Forum and the Association of Southeast Asian Nations were each referenced once, as forums for information sharing. There was one reference to the World Trade Organization, on trade of environmental goods. And there was one reference to the International Labour Organization, in the context of the environment and global supply chains.

PROPOSALS

Based on this analysis of the G20's performance on climate change and nature, the 2020 Saudi Arabia Summit should:

- Endorse the IUCN's eight NBS principles;
 - Improve its transparency and involvement with the non-economic G20 engagement groups, including the T20 and the U20;
 - Directly challenge and commit to dismantle climate misinformation campaigns;
 - Increase its deliberations and decisions on NBS. This should include increasing specificity and ambition, making strong issue linkages, recognizing co-benefits for SDG implementation, and centering inequality
 - Evoke surrounding summit support from international institutions;
 - Strengthen internal support by establishing and institutionalizing a G20 climate change ministers' meeting;^{32, 33}
 - Acknowledge new models of hybrid governance, including multilevel/polycentric governance approaches that can better account for the complexity of the interactions between human and climate systems.^{34, 35}

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**Vas-Y: Unlocking
private investment for
fragile states**

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Making the case for G20 action on urbanization

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WHY CITIES MATTER FOR THE G20

The G20 was shaped out of the 2008 global financial crisis, which took place only a couple of years after the world officially turned more "urban" than "rural".¹ The latest compliance of the G20 Working Group shows that while there is no designated G20 urban priority yet, the topic arises from all major commitments of G20 member countries, calling for a G20 focus on the issue.²

Urbanization, together with digitalization, are underlying transformative forces of the global economy, trade and commerce, lifestyles and consumption, and the environment. While cities have been acknowledged as drivers of growth and innovation since the turn of the millennium, they face and echo rising concerns such as natural resource limitations, inequalities and vulnerabilities, a new localism opposing globalization and citizens' anxiety witnessing global warming.³ Meanwhile, as cities have been calling for more institutional recognition on the global stage for years, they still play a secondary role in shaping geopolitics.⁴

The G20 represents 90% of the world economy, which is questioned by rising tariffs and uncertainties. As cities account for more than 80% of the world GDP, the

role of interconnected and interdependent cities and urban regions across the world is central, especially for infrastructure investments.⁵

Reflecting on long-term values associated with cities as places for exchange, the role of cities and metros in meeting climate targets, directing fiscal investments, generating jobs and maximizing infrastructure investments, spillover effects, mitigating social imbalances and managing migration will continue to gain importance by 2030 and beyond.

The governance choices made in the coming months and years will have a direct impact on long-term global growth and sustainability. Urbanization can become a driving force for a sustainable future and the achievement of the SDGs, for stability and peace. We argue here that sustainable (and smart) urbanization should be on the list of G20 cross-cutting priorities to ensure that urbanization is not decoupled from global and local poverty alleviation and eco-systemic preservation.⁶

Urbanization will be a critical factor in the growth story of the coming decades and there is momentum for the G20 Saudi Arabia to build on the immediate outcomes of the G20 troika of Germany, Argentina and Japan and help lay the ground for another three-year cycle. With urbanization added to an accelerating G20 agenda on infrastructure, climate, and development, the legacy of the Saudi Presidency ahead of the G20 in Italy in 2021 and India in 2022 should build on two pillars:

- Capitalize: Creating the conditions for the issue of smart and sustainable urbanization to strengthen the case for G20 impact
- Capitalize: Taking concrete steps to drive the process.

SUSTAINABLE AND SMART URBANIZATION CAN MITIGATE RISING SYSTEMIC RISKS

Since the first meeting of the G20 heads of government in 2008, the Group of 20 has expanded its reach beyond debt and financial and fiscal stability to "establish economic fundamentals for realizing sustainable and inclusive growth of the global economy."⁷

In the short and long term, sustainable and smart urbanization will be key to supporting the global economy, remembering that the 2008 subprime crisis did not only originate in the United States (US), but in US cities. It was an issue of bad loans, but also a problem of oversupply of housing disconnected from job markets and any urban logic, embedded in an ailing global banking system. In other words, a problem of urbanization going the wrong way was one factor behind a global financial crisis.

As the world counts more than 30 megacities and more than 4,000 cities of 100,000 inhabitants or more⁸, systemic risks are greater than ever before. There is plenty of capital available on global financial markets at low interest rates, as a direct consequence of governments' response to the 2008 financial crisis. However, investment gaps are widening in the absence of global norms, standards and global governance addressing urban issues.

- The world is facing a USD 15 trillion infrastructure gap by 2040 with India, Indonesia, Mexico, Brazil and South Africa confronted with the largest gaps between spending and estimated infrastructure needs;⁹
- The global investments required in the energy sector alone to meet the

1.5°-Celsius limit of the Paris Agreement account for more than USD 830 billion a year¹⁰;

- Multilateral development banks (MDBs) currently provide around USD 50 billion per year in financing for sustainable infrastructure or just 1.5 percent of the prospective needs of emerging markets and developing countries (EMDCs). Private capital flows from G20 countries into sustainable infrastructure is also very small, just 0.5 percent of the total global need.¹¹

The urban population will continue to grow by 2050 and even beyond by 2100, especially in developing countries in Asia and Africa, while urban areas already account for two-thirds of the world's energy consumption.¹² Local issues have become global issues. Investments in and with cities are a critical factor to meet global investments needs and to reach the targets of the 2030 Agenda effectively:

- Cities are critical to broaden and cascade the consensus reached among global institutions;
- Cities are the meeting place between local needs and global politics;
- Cities are critical nodes in the global system and can foster innovation with public support quickly;
- Cities exemplify the interlinkage between the major challenges of our times and can play a key role in addressing systemic environmental issues such as biodiversity.

Solutions will come from both the Global South and emerging countries, not just from the developed countries. The United Nations has redoubled its response to urbanization, through the "New Urban Agenda" launched during the Habitat III 2016 summit and by engaging by engag-

ing in a system-wide approach across UN bodies and agencies in 2019.¹³ Yet, as the United Nations faces chronic funding gap issues, its action must be supplemented at the level of the G20. The G20 is the largest plurilateral global policymaking initiative and it has the leverage to foster effective triangular cooperation by connecting ministerial and government working groups such as the G20 Development Working Group, and engagement groups such as the think tanks (T20) and the emerging group related to urbanization (U20).

»Urbanization, together with digitalization, are underlying transformative forces.«

MANAGING THE CUMULATIVE IMPACTS OF INFRASTRUCTURE AND URBANIZATION

At the G20 Hangzhou Summit in 2016, the leaders expressed their determination to foster an "innovative, invigorated, interconnected and inclusive world economy" and the Chinese Presidency placed the 2030 Agenda high on the G20 agenda in order to realize "strong, sustainable, balanced and inclusive growth".¹⁴

In 2017, the G20 German Presidency elaborated on "Shaping an interconnected world" and it endorsed the creation of

the Global Solutions Initiative as a cross-sectoral, global, problem-solving platform. In 2018, the G20 Argentina placed sustainable development at the forefront of the G20, and it endorsed the High Level Principles on Sustainable Habitat through Regional Planning. The T20 Argentina also made the case for combining climate action with infrastructure for development.

As an outcome of the G20 Japan, the Osaka Update on the 2030 Agenda for Sustainable Development, and especially the table of Collective and Concrete Actions Contributing to the Implementation of the 2030 Agenda, highlight concrete ways to move toward more effective solutions globally and locally.¹⁵

In the future, the creation of a G20 commission for regional and local level authorities should be explored, as a means to reinforce triangular cooperation for achieving the 2030 Agenda as defined by the G20 Development Working Group (WG) and as a mechanism to support the outreach of the G20 Action Plan on the 2030 Agenda for Sustainable Development. A joint G20 agenda connecting urbanization with infrastructure issues could be the first step.

G20 leaders began to emphasize infrastructure as a key pillar of economic growth about a decade ago.¹⁶ The G20 Finance Ministers acknowledged at their June 2019 meeting the impacts of the aging of the world population on public finance, as over 2 billion people will be over 60 by 2050.

The rise of public expenditures for pensions, health and social care systems will constrain spending on infrastructure development and management by 2030 and beyond, as the OECD already pointed out

over a decade ago. And yet, we are at the dawn of a global infrastructure tsunami, which needs to be financed.¹⁷

With a total return on investments from infrastructure and other built assets of more than USD 30 trillion annually for G20 countries¹⁸, infrastructure is key to financing and supporting long-term development. Our future depends on how infrastructure, coupled with urbanization (and not infrastructure alone), will be managed. This includes

- Urban decarbonization
- A better management of spillover revenues
- Resilient and nature-oriented urban infrastructure
- Building on the Fourth Industrial Revolution (4IR) technologies can contribute to maximizing the impact of infrastructure on development

Infrastructure investment is complex, connecting long-term and large upfront investments, spillover effects and social, economic and territorial externalities, decision-making processes and policy-induced risks. A common G20 priority is to foster infrastructure development that enhances change and sustainability. While remarkable breakthroughs occurred in renewables, digitalization, materials, mobility, etc. in the last decade, implementing the paradigm shift toward sustainability requires a broader systemic vision and additional leadership to align policies:

- The 1.5° Celsius 2018 IPCC report has only opened the door to urbanization combined with infrastructure development as key factors.¹⁹
- The 2019 UN IPBES biodiversity and ecosystem report on the way – the 15th-meeting of the UN Conference of the Par-

ties to the Convention on Biological Diversity (COP15) to be hosted by the People's Republic of China in 2020 devoted a minor segment to cities, urbanization and infrastructure development.

- As G20 leaders began to emphasize infrastructure as a key pillar of economic growth in 2009-2010, expertise on infrastructure is now dispersed among many different G20 declarations, high-level principles, working groups, initiatives, hubs, high-level panels, engagement groups etc.

It is time for change.

»Sustainable and smart urbanization will be key to supporting the global economy.«

FOUR PROPOSALS TO CONNECT THE RE-COUPLED URBANIZATION WITH GLOBAL POLICYMAKING IN THE G20

We propose to connect the dots through a fourfold action plan, making the case for smart and sustainable urbanization as a matter of interest for the G20:

- Establishing G20 High Level Principles on Sustainable and Smart Urbanization, building on a review of the High Level Principles on Habitat and Regional Planning and of the G20 Action Plan on the 2030 Agenda

for Sustainable Development. These new High Level Principles would interconnect infrastructure investments and global environmental agendas, realign smart cities and the global real estate industry along a sustainable development narrative and open the way for a combined knowledge-based and creative economy to support economic and societal transformation;

- Fostering an MDBs Urbanization Action Initiative²⁰, which would help reinforce the role of inclusive finance tools and responsible investment funds in supporting local urban communities and in increasing the significance of urban and human ecology. It could extend its reach to other banking institutions, such as the development banks gathered in IDFC – International Development Finance Club;

- Setting up a G20 High Level Panel on Sustainable and Smart Urbanization. This panel would be the supporting tool for triangular cooperation within and beyond G20 membership, in order to make it easier for emerging economies and less-developed countries to benefit from the proposed High Level Principles and the MDBs Urbanization Action Initiative. It would act as a bridge between global talks (the COPs, the UN summits etc.), cities arenas (the Urban Forum and other cities advocacy groups), MDBs and industry ;

- Mobilizing the expertise of T20 engagement groups and building on the Global Solutions Initiative and connected undertakings, such as the Infrastructure Solutions Lab, to nurture a three-year joint infrastructure and urbanization agenda, which could be complemented by inputs from the U20.

Making the case for G20 action on urbanization is designed to enrich the cities

focus of the upcoming 15th meeting of the Conference of the Parties to the Convention on Biological Diversity (COP15) in the fall of 2020, the United Nations International Year of Creative Economy for Sustainable Development in 2021, and the

preparation of the 30th anniversary of the 1992 Rio Earth Summit. Three decades after the collapse of the Berlin Wall, it might be the right time to review the global environmental governance of an urbanized planet.

¹ BUCHOUD, Nicolas J.A. (ed). *La ville stratégique, changer l'urbanisme pour répondre aux défis urbains mondiaux*. Strategic City. CERTU, Lyon, 260 p 2008. PEIRCE, Neal R; JOHNSON, Curtis W et al. *Century of the City. No Time to Lose*. The Rockefeller Foundation, 447 p. 2008.

² <http://www.g20.utoronto.ca/compliance/2018buenosaires-final/index.html>

³ KATZ, Bruce and NOWAK, Jeremy. *The New Localism: How Cities Can Thrive in the Age of Populism?* Brookings Institution Press, 2017, 304 p. TREYER, Sébastien ; GUILLAUMONT, Patrick. *Inégalités et vulnérabilités : vers une convergence des politiques de développement conduites par les membres du G7 ?* Note réalisée dans le cadre du T7. IFRI, Août 2019.

⁴ Urban 20 Tokyo Mayors Summit Communiqué on Climate Change, Social Inclusion and Sustainable Economic Growth. May 2019.

⁵ Peirce et al. (2008), OECD (2015).

⁶ SANDERSON, Eric W, WALSTON, Joseph and ROBINSON, John G. *From Bottleneck to Breakthrough: Urbanization and the Future of Biodiversity Conservation*.

⁷ <https://g20.org/en/summit/theme/>

⁸ UNDESA (2018). The 2018 Revision of the World Urbanization Prospects. Available from <https://population.un.org/wup/Publications/>

⁹ World Economic Forum (2019, April 11). *The world is facing a \$15 trillion infrastructure gap by 2040. Here's how to bridge it* [Blog post]. Retrieved from <https://www.weforum.org/agenda/2019/04/infrastructure-gap-heres-how-to-solve-it/>

¹⁰ Banque de France, 2019. *Rapport d'investissement responsable de la Banque de France 2018*.

¹¹ Bhattacharya, A. et al. (2019).

¹² SANDERSON, Eric W, WALSTON, Joseph and ROBINSON, John G. *From Bottleneck to Breakthrough: Urbanization and the Future of Biodiversity Conservation*. BioScience, Volume 68, Issue 6, June 2018, Pages 412–426, <https://doi.org/10.1093/biosci/biy039>

¹³ 1st Universal Assembly of UN Habitat, Nairobi, May 2019. Resolutions.

¹⁴ https://www.g20.org/pdf/documents/en/annex_11.pdf

¹⁵ https://www.g20.org/pdf/documents/en/annex_11.pdf

¹⁶ Since then, infrastructure has been the topic of working groups, panels, and many initiatives at G20 Heads of states and ministerial level, G20 engagement groups etc.

¹⁷ 25 million km of new paved roads should be built globally by 2050, with 2,5 billion more urban dwellers by then – the equivalent of the total world population in 1950.

¹⁸ Arcadis (2016). 2016 Global Infrastructure Investment Index. Available from <https://www.arcadis.com/en/global/market-sectors/cities/>

¹⁹ IPCC Special report. Global warming of 1.5 °C. October 2018. <https://www.ipcc.ch/sr15/>

²⁰ The High level panel on infrastructure and MDBs infrastructure action plan were originally introduced within G20 in 2011 (see section Previous G20 outcomes connected to the priority). They could serve as a model, or even host this discussion.

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Green finance in emerging markets

Capitalizing private investments in sustainable electricity production in developing countries

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Renewables currently make up around 46% of electricity generation in Germany (2019). In 2009, this figure was only 18%.¹ Around the globe, renewables accounted for approximately 26% of all electricity sources in 2018.² Germany has pledged to phase out not only nuclear power but also coal-fired power plants. The country's energy transition is making strides that were considered to be nearly impossible a few years earlier. However, critics find fault with the fact that Germany is failing to meet its climate targets and has not yet managed to comply fully with the requirements of the Paris Agreement on climate change. At the same time, energy costs in Germany are among the highest in Europe; private households in Germany pay over 30% more than those in comparable industrialized countries such as France, Italy or Great Britain.³

In this regard, the energy transition is an often underestimated political achievement because, despite the high energy costs for both business and consumers, a clear majority of the German population remains in favour of the realignment of the country's energy policies that is required in order to fight climate change. This is not

necessarily a matter of course, because even objectively necessary reforms can lose acceptance among the population in a democracy.

And yet, even if Germany picks up the pace of the energy transition, despite all the societal discussions surrounding grid expansion and the minimum distance requirements for wind turbines, and even if the country manages to meet the targets it has set in terms of decarbonization, the fact remains that Germany is only responsible for around 2% of global CO₂ emissions.

FASTER GLOBAL DECARBONIZATION NEEDED

The growth rates in terms of energy consumption in emerging countries such as China, India, the booming Tiger Economies of Southeast Asia as well as developing countries in Central and South America far exceed Germany and other Western European countries' capacity to cut CO₂ emissions.

For this reason, global consequences of climate change will only remain manageable if we are able to accelerate decarbonization on a global scale. Developing countries will continue to grow rapidly, thus increasing the wealth of their populations, which in turn will result in an increase in energy consumption. And why shouldn't they? After all, the per capita energy consumption in these countries today remains far lower than that of industrialized nations.

Moreover, when it comes to the aspect of fairness on a global scale, developing countries justifiably point out the fact that in the 20th century, industrialized Western countries were responsible for producing

the vast majority of globally tolerable CO₂ emissions in order to generate prosperity for their nations. Industrialized countries therefore have a particular obligation to help find climate-friendly power generation solutions on the international level. In addition to an increase in energy efficiency thanks to innovative technologies, which will also be a key component of solutions in the future, decarbonization is necessary in order to generate power that meets the growing needs around the globe in a more climate-friendly manner.

»Global consequences of climate change will only remain manageable if we are able to accelerate decarbonization on a global scale.«

The institution:



The Deutsche Bundesstiftung Umwelt (DBU) funds innovative, exemplary and solution-oriented projects for the protection of the environment, with special consideration of small and medium-sized enterprises. The funding activities focus on environmental technology and research, nature conservation, environmental communication and protection of cultural assets.

show that worldwide energy consumption will rise considerably in the coming years.

The International Energy Agency (IEA) predicts an increase in global energy consumption of more than 25% between 2019 and 2040.⁴ The IEA anticipates the rise in energy consumption to be particularly high in Southeast Asia (+67%) and India (+109%), whereas during the same time period, a decline of 12% is predicted for Europe. For the US, the organization anticipates a slight increase of 3%. The basis for these estimates, however, is a continuous improvement in energy efficiency. If this is not taken into account, the rates of increase will nearly double.⁵

STRONG DEMAND FOR INVESTMENT IN THE ELECTRICITY SECTOR

The energy industry will continue to gain importance in terms of electricity production for reasons of climate protection. While electricity consumption is only rising slightly in developed, industrialized nations, it will double in developing countries. And in both developing and developed countries, affordable clean energy that is available to everyone is at the heart of strategies both for economic development and reducing emissions. Electrical motors in China alone are responsible for one-fifth of the increase in global energy demand. Increasing demand for cooling systems in developing countries is resulting in a similar growth push.⁶

In India, a great deal more than half of the primary energy consumption is currently covered by around 350 GW of installed capacity that is powered by coal. Taking into consideration newly constructed, low-emission facilities and the closure of particularly high-pollution

coal power plants, the capacity of the coal power plants is expected to remain at 238 GW in 2027, which is just 11 GW below the 2016 level.⁷ In 2017, India was responsible for 11.4% of global coal consumption, and up to 82% of the electricity in the country was generated using fossil fuels; in 2019 it was still 79%. However, the Indian government has pledged to quickly expand power generation through renewable sources because the use of coal to generate electricity currently accounts for around 35% of the country's entire CO₂ emissions. The aim is to generate 175 GW through renewable sources by 2022, with the vast majority coming from solar energy, followed by wind energy, bio energy and small hydropower plants. In the National Electricity Plan 2018, the planned production capacity of 175 GW was increased by 100 GW to 275 GW by 2027.⁸ With an absolute capacity of 78 GW, India is currently the fourth-largest producer of renewable energy after China, the US and Germany.⁹

Procurement of capital for investments in power generation is a challenge in India, because the interest rates charged by domestic banks are in the two-digit range, as well as because of issues of technical grid management, slow-moving government agencies and corruption.

Around the world, nearly one in every three dollars invested into energy supplies (all areas taken as a whole) goes to power generation and distribution in developing countries. However, the necessary investments could fail to materialize, especially in places where end-consumer prices are too low to cover costs.¹⁰

In order to comply with the goals set out in the Paris Agreement, investment

in renewable energies must increase, and not only in emerging market countries. According to the Allianz Climate and Energy Report 2018, USD 886 billion must be invested annually in the energy industry of G20 countries by 2050.

»The expansion of renewable energies in many developing countries is progressing comparatively slowly.«

According to these figures, the capital required in the energy sector in the US, for example, totals USD 158 billion, which is nearly three times as high as the actual investments of USD 57 billion that have been made in renewable energy. In 2017, China invested around USD 133 billion into renewable energies, and yet it would need to invest USD 314 billion annually in order to be on track to achieve the goals of the Paris Agreement in terms of its energy sector. In India, the number of solar power installations doubled in 2017, and wind energy has also seen a significant uptick in installations. However, with investments

in renewable energies of USD 11 billion in 2017, India did not even reach 10% of the required total of USD 160 billion.¹¹

Despite growing global investment in renewables for power generation, we are still in danger of losing the race against the growing demand for energy around the world.

MOBILIZATION OF PRIVATE CAPITAL IS ESSENTIAL

Without mobilization of private capital, the necessary investment amounts will not be reached, and certainly not in emerging markets and developing countries.

At first glance, it is truly astonishing that countries which, given their geographic location, have excellent opportunities for the use of renewable energies, do not take greater advantage of this fact. Solar and wind energy would not only be more effective in Africa, the Middle East and the Gulf States than in Germany, but also in many Asian countries, in India, and in South America. In India, the sun shines more than 300 days a year on average. As a result, the irradiation levels there are twice that of Germany.¹² Despite this fact, the expansion of renewable energies in many developing countries is progressing comparatively slowly.

The reasons for this are manifold. Many of these countries have a centralized energy infrastructure that is based on fossil fuels and they are not necessarily intrinsically motivated to invest large sums of capital into reforming their current energy supply. The existing energy infrastructure provides jobs for the population, which, as in industrialized countries, leads to inertia. For a long time, renewable energies were not competitive in these countries in terms

of cost. A lot of countries are also lacking financing options because often the local energy providers are not stable enough on their own. Moreover, local banks in developing countries tend to issue loans with shorter terms than is compatible with investing in energy grids.

»Political risks associated with investments in real value assets in developing countries are a major problem.«

However, as a result of the technical advances made in terms of renewable energies, thanks in great part to the pioneering work of countries such as Germany, production costs for renewables have sunk so low over the past few years that they are not only increasingly competitive even without public subsidies, but are also an attractive investment opportunity for private investors. Today, in countries such as Germany, France and Italy as well as in Scandinavia, many more institutional investors, such as foundations, life insurance companies or pension funds, are in-

vesting in renewable energies as a matter of course than in the past.

Therefore, if making investments in renewable energies is attractive to investors in these countries, it must be at least as attractive if not more so in developing countries where the geographic conditions for the use of wind and solar energy are much better.

In fact, there are currently a number of investment opportunities in these kinds of emerging market funds, which are often marketed under the umbrella of impact investing. One example in Germany is the Emerging Markets Renewables fund offered by Evangelische Bank, which is based on investments from the German Investment Corporation (Deutsche Investitions- und Entwicklungsgesellschaft (DEG)), which is a subsidiary of KfW Group. The fund includes projects for wind power, hydropower, solar energy and geothermal energy in Central and South America and in Africa. Investors can rely on DEG's many years of experience, while DEG can more broadly diversify its portfolio through additional private investment capital. The fund remains a relatively niche product that attracts little interest among the vast majority of institutional investors.

For this reason, it makes sense to look at the barriers to entry because, despite the fact that the zero-interest and negative-interest phase has continued for a number of years now, there is a great deal of available private capital around the world that is still looking for investment opportunities which do not necessarily promise extravagant returns. This capital could be invested in a climate-friendly global power supply as soon as the conditions for all parties are sufficiently attractive.

POLITICAL RISKS AS A BARRIER TO ENTRY

Political risks associated with investments in real value assets in developing countries are a major problem. For example, as soon as there are indications of a crisis in these countries, stocks or publicly listed bonds can be sold off relatively quickly on the stock exchange – although this may be at a discount – which helps to reduce losses. Illiquid investments in material assets such as real estate, infrastructure projects, or even investment in the generation of renewable energies comes with a significantly higher risk because the investor would be forced to watch, largely helpless, should the political conditions in the country take a negative turn.

Civil war, corruption, massive shifts in taxation, regulations to the movement of capital, and expropriation can result in everything from high depreciation costs all the way to complete losses because the sale of the assets would become practically impossible in the event of a crisis. Taking into consideration that the standard investment periods for these kinds of investments are between 10 and 30 years, it is clear that these risks become considerable over the entire timeline.

Deutsche Bundesstiftung Umwelt, DBU (German Federal Environmental Foundation) has had illiquid capital investments in emerging countries in its portfolio since 2006. This has demonstrated that not only are these risks theoretical in nature, but also that they may be overestimated by investors. In terms of the DBU's investments in microfinance funds, there have been, for example, problems with corruption in Nicaragua, issues in Kenya with political unrest and violent conflicts after

a contested presidential election in 2008, as well as massive corruption in Honduras, all of which have had negative effects on the anticipated returns. When we look at the totals across all investments, there were some returns that were lower than the initial estimates on the part of the initiators; however, there were no total losses or depreciation of the invested capital. However, the fact that the actual returns were somewhat less than anticipated by the initiators of the funds is not unusual, even in traditional asset classes such as real estate funds.

Naturally, the latest political developments in Central and South America in 2019 are anything but encouraging for investors in illiquid real assets. Whereas initially it was only Venezuela that was spiralling further into a serious political crisis, over the course of the year, massive unrest took hold in Columbia, Ecuador, Bolivia, and even in countries that had been considered relatively stable, such as Chile. The reasons for the political unrest and protests are all different, and it is essential to consider the situations in each country on an individual basis.

For example, in Ecuador, the protests were sparked by increases in petrol prices; in Bolivia, it was a president who refused to relinquish power and eventually ended up in exile in Mexico; in Chile it was fare hikes for the buses and the metro, coupled with increases in the cost of living, that caused the pre-existing discontentment with the government among the general population to boil over into mass protests. One common denominator all of these events share is growing mistrust of politicians among the population and the inability on the part of politicians, both on the right and the left,

to strike a balance between competing interests and find workable compromises. The inability to compromise in the political sphere brings with it the latent danger of political unrest and a radical political shift in the opposite direction, with all the corresponding risks for investors in illiquid real assets.

However, focusing on investments in power generation through renewable energies rather reduces potential risks, because people will always need power, and therefore turnover is always guaranteed, even in the event of a radical political re-orientation. Whether the energy is paid for as agreed is another question. Interventions into the legal positions of the investors poses another risk. However, drastic measures such as expropriation are rarely taken, even in emerging countries, because governments understand that this will result in all foreign investments into their domestic economies quickly grinding to a halt, and that the resulting damage to their economies would greatly outweigh any potential advantages.

Naturally, even developing countries have their own national jurisdictions. However, the investor must therefore determine whether or not the benefit-cost ratio of legal proceedings makes sense not only from a legal point of view but also from an economic one, taking into account the structure and impartiality of the justice system of the country in question as well as the possibility of legal recourse in the event of government intervention or against local business partners.

A lack of understanding of the specific situation in the individual countries can result in a disproportionate increase in risk perception on the part of the inves-

tor, which in turn causes them to tend to reject these kinds of capital investment. Even for professional ratings agencies, this is listed as a reason why many developing countries are quickly grouped in the non-investment-grade segment in terms of their rating.

Another pragmatic aspect to be considered is that, for institutional investors, write-offs result in investment committees raising questions as to whether these kinds of capital investments make sense economically more often than, say, write-offs after a stock market crash in established markets that everyone is aware of and in which everyone understands the after-effects.

RISK MANAGEMENT THROUGH GOVERNMENT INSTITUTIONS OR DEVELOPMENT BANKS

One way to facilitate these kinds of investments is to use third parties to buffer against risks, in particular the public sector or international development banks. Projects that fund power generation through renewables in emerging countries are particularly well-suited to this kind of risk coverage. For the public sector, these kinds of public-private partnerships (ppps) could be a very attractive model because the involvement of private investments serves to leverage the funds that they invest, which in turn multiplies the positive impact on the climate.

The objective is not to protect the investor, who is naturally also interested in returns, from any and all risks, but rather to reduce the specific political risks associated in particular with investing in illiquid climate protection assets in emerging countries, in order to establish a counter-

weight to a risk perception that may be inflated, for example in the form of "first loss tranches".

»Investment-ready projects cannot simply adopt the standard business models of European funds.«

These tranches allow potential investors to choose from different tranches. The first tranche offers the highest returns, but is also forced to absorb first losses. In the second tranche, investors only absorb losses in the event of a reduced return when the first tranche has absorbed its losses in full. In the third tranche, risk is very low, because it will only be forced to absorb losses when the first two tranches have experienced full losses. Accordingly, return in the third tranche is significantly lower. However, in general, the return is still higher than it would be in comparable liquid bonds such as a green bond. These platforms allow investors to choose between expected return and risk profiles. Public institutions or development banks would then invest in

the first, high-risk tranche, therefore absorbing the first losses.

The European Energy Efficiency Fund (EEEF) works according to this model. In a recently launched fund that supports projects in Europe with a target volume of EUR 500 million, the European Union is currently invested in the most high-risk tranche with EUR 100 million. This results in a risk buffer of at least 20%. Private investors are currently being sought for the second and third tranches.

The social start-up Africa GreenTec has launched a significantly smaller public offering. With a EUR 10 million loan, the company has financed the delivery and installation of 50 solar containers in Mali, thus providing up to 250,000 people with access to clean, inexpensive, reliable energy. The brightly colored containers are equipped with photovoltaic modules as well as a battery and can provide hundreds of households with power day and night. The investment is secured by a guarantee provided by the Federal Republic of Germany for direct investments abroad. Investors, including the DBU, bear a deductible of 5%; in the event of damage caused by war, the deductible is 30%. The returns of 6.5% p.a. are at risk. However, for many institutional investors, the total of EUR 10 million is too small-scale, and an individual project in Mali is too far off the beaten path of traditional investments. As a result, the bond has not yet been fully placed.

LACK OF MARKET COMPATIBILITY

Project funds in Europe such as the EEEF are generally designed for much larger sums than those used in the example in Africa. The economic power in developing countries is much lower, which means

that projects are generally much smaller in scale than in industrialized nations. This makes them uninteresting to many fund initiators who are looking for projects in the tens of millions for a EUR fund with hundreds of millions to invest. For this reason, investment-ready projects cannot simply adopt the standard business models of European funds, because the project scales do not match and, moreover, the transfer often needs to be regulated in a local currency that is much more volatile and significantly weaker. A look at how microfinance funds are structured could be helpful: in these funds, local microfinance institutes (MFIs) play an important role in terms of distributing investment resources on location.

When applied to the energy sector, fund management could be the responsibility of reliable local banks that in turn allocate the resources to the smaller projects. The local banks could in turn guarantee longer maturities than are standard in emerging market countries. This would also serve to alleviate a financial bottleneck in a developing country.

Furthermore, a basic level of acceptance for these projects must be achieved in the target countries. To this end, negotiations are not only necessary on the governmental level, but the local interests in these areas must also be considered. For this reason, the involvement of local banks for the distribution of investment resources in local currency makes sense because they know their regions better than anyone. Similar to an MFI when it comes to microfinancing products, involving local banks establishes an important local connection that can be key in terms of a project's success – for example, if a local government administration in the target

country makes a project unnecessarily difficult or causes delays because they are skeptical about foreign investors.

One investment project that has already paved the way in Germany is the Universal Green Energy Access Program (UGEAP) for countries south of the Sahara. The project was initiated by the UN Green Climate Fund (GCF) together with the German asset manager DWS as the investment manager. This project offers institutional investors access to growth markets in Africa, while capital from the GCF serves to protect investors against losses. In terms of investments in green energy projects, DWS uses the local expertise of its partners in the target countries, and in particular local banks and renewable energy companies there. In the first phase of UGEAP, the project is investing in projects in Benin, Kenya, Namibia, Nigeria and Tanzania. The governments of these countries support the UGEAP fund.

»The structures of capital investments are often extremely complex.«

COMPLEX AGREEMENT STRUCTURES

Another obstacle that should not be underestimated is a technical one: the structures of these types of capital investments are often extremely complex and the agreement paperwork is often extensive. For

many institutional capital investors, this is a serious regulatory problem in terms of existing investment guidelines.

Many of these funds for capital investors take the form of a SICAF (société d'investissement à capital fixe) in Luxembourg – a collective investment scheme for capital investing with a fixed base capital that generally does not allow investors to leave the fund before maturity. As opposed to a German investment company, a SICAF is not a separate fund but rather an independent legal unit with its own management and management board. The agreement paperwork is accordingly comprehensive.

As a result, up to now, the EEEF of the European Union has had limited success in attaining private investors even though this fund allows for temporary involvement with an option to choose between various periods of involvement in the form of a SICAV (société d'investissement à capital variable) in which the base capital is variable and there is a range of possible multi-year maturities.

However, many institutional capital investors are not permitted to get involved with these types of funds, or involvement is associated with major administrative hurdles. But even if internal and external regulatory frameworks allow an investor to get involved with these kinds of investments, there is often an understandable amount of reluctance regarding complex structures and agreements of this nature. Moreover, the admissibility of investments in these types of structured products often involves strict limits in terms of a mixture within the framework of diversification of a portfolio. Investors prefer to use these limits for higher-yield investments than

for safe tranches with correspondingly limited returns.

GREEN BONDS ARE A GOOD POINT OF ENTRY

Special green bonds for financing investments for the generation of renewable energy in emerging countries, initiated, for example, by development banks in industrialized nations, could also help solve issues of financing. To investigate the effectiveness of green bonds, the DBU commissioned a study by the Südwind Institut in Bonn and published the results in 2019.¹³ KfW Group has paved the way in Germany when it comes to green bonds. Since April 2015, KfW Group has built up a global green bond portfolio with support from the German Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety. The portfolio finances projects for climate protection and environmental conservation. KfW Group's objective is to invest a total of up to EUR 2 billion in these bonds. Around the world, green bonds totalling USD 150 billion are currently issued every year.

However, not every green bond is necessarily as "green" as one might hope. In the study, which was entitled "Great Expectations – Credibility and Additionality of Green Bonds", it became clear that out of more than 400 issuers of financial instruments, less than half disclosed the actual projects that would be financed with the green bonds. One positive finding, however, was that Südwind only determined 2% of the roughly 3,000 projects evaluated to be problematic because there was no clear ecological benefit. Furthermore, the study determined that green bonds also resulted in an additional boost for projects in emerging markets and developing

countries because they actually serve to redirect more private capital to sustainable projects in these countries that would otherwise have no financing options available to them.

»Green bonds could be a good point of entry into climate protection investments in developing countries.«

Another advantage of green bonds is that they have a much higher liquidity because they are often traded on stock exchanges. This significantly lowers the barrier to entry for investors without any specific experience or expertise in the area. For this reason, green bonds are becoming increasingly popular. According to an analysis carried out by the ratings agency Scope, green bonds with a total volume of USD 118 billion were issued in the first half of 2019. This corresponds to a growth of 48% compared to the previous half-year.¹⁴ However, as with bond markets, the returns on the whole are much lower than

for direct investments in real assets. Still, green bonds could be a good point of entry into climate protection investments in developing countries for risk-averse capital investors with low return expectations.

SUMMARY

Overall, it should be noted that there are a number of hurdles keeping institutional investors from investing more in environmentally friendly power generation in developing countries. As a result, demand remains modest for the few investment projects that currently exist. However, as a number of existing projects have demonstrated, these problems can be solved. Nevertheless, it is clear that it is not sufficient to simply solve one of the problems, such as buffering for political risks, a lack of liquidity, or complex agreement structures. There are not enough offers that properly address all investment obstacles and make it easier for investors to decide to invest.

Given the challenge of significantly increasing the amount of power generated by renewable energies, both in industrialized nations and in developing countries, and given the investment capital currently available around the globe that is urgently searching for investment opportunities, it is worthwhile to consider possible solutions that could result in a win-win situation for investors, developing countries, and for environmental protection. This will require close cooperation between institutional investors, their regulatory bodies, providers from the financial sector, and partners in developing countries.

¹ Fraunhofer ISE, Public Net Electricity Generation in Germany 2019, January 2020.

² REN Report 2019, page 29, 41.

³ Eurostat 2019.

⁴ IEA World Energy Outlook 2019, Overview.

⁵ BMWi, "Energiewende direkt" newsletter, 11/2018, World Energy Outlook 2018.

⁶ World Energy Outlook 2018, German Summary, page 3.

⁷ Indo-German Chamber of Commerce, Energy Efficiency and Self-supply with Renewable Energy in Industry in India, target market analysis 2019, page 14 f.

⁸ Indo-German Chamber of Commerce, Energy Efficiency and Self-supply with Renewable Energy in Industry in India, target market analysis 2019, page 16.

⁹ REN Report 2019, page 42.

¹⁰ IEA, World Energy Outlook 2018.

¹¹ Allianz Climate and Energy Monitor 2018, pages 21 and 22.

¹² Indo-German Chamber of Commerce, Energy Efficiency and Self-supply with Renewable Energy in Industry in India, target market analysis 2019, page 1.

¹³ Great Expectations – Credibility and Additionality of Green Bonds (German: Große Erwartungen – Glaubwürdigkeit und Zusätzlichkeit von Greenbonds), Südwind Institut, Bonn, 2018.

¹⁴ Scope Analysis, Green Bonds Fund, December 2019.

Vas-Y: Public-private-partnership model for unlocking private investment for fragile states

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As a federal enterprise, GIZ has over 50 years of experience in a wide variety of areas, including economic development and employment promotion, energy and the environment, as well as peace and security. GIZ works in demand around the globe – from the German government to European Union institutions, the United Nations, the private sector and governments of other countries. The main commissioning party is the German Federal Ministry for Economic Cooperation and Development.



Scio (www.scio.net) is a consulting network for international development, which provides advisory and implementation services for Governance and Transformation in International Cooperation.

PRIVATE INVESTMENT IS CRUCIAL TO ACHIEVE DEVELOPMENT GOALS, ESPECIALLY IN FRAGILE CONTEXTS

Traditionally, international development policies pursue global development objectives through official development assistance (ODA). However, the 2030 Agenda revealed the shortcomings of ODA in implementing the Sustainable Development Goals (SDGs). Given an annual ODA budget of USD 162.779 billion, there is an estimated USD 30 trillion shortfall in funding for achieving the SDGs.¹ Policymakers stress the necessity for private investment in developing countries. A number of prominent initiatives reflect this argument. This includes the UN's SDG Impact initiative and the heavyweight Compact with Africa, launched under the German G20 Presidency in 2017. Today's role of ODA is therefore not limited to fixing global challenges directly, but it should pave the way for large private investments to do so.

Private investment is of particular importance to contexts of fragility, conflict and violence (FCV).² Two arguments are striking: (i) FCV contexts have a comparably high need for funding, yet only a low share of ODA and private investment. (ii) The impact of private investment in FCV economies can make an enormous contribution towards resilience, stability, and sustainable development.

Let us unpack these arguments: fragile states appear to be among the top beneficiaries of funding. ODA to FCV countries increased 26% from 2009 to 2016.³ Yet, a closer look at this number unveils a noteworthy distortion. The high amount is due to an enormous increase of humanitarian assistance. The humanitarian share in ODA is about 25% for all FCV contexts and

about 50% for the 15 extremely fragile contexts. Reserved for immediate crisis response, the humanitarian budget does not provide the resources for long-term development and SDG achievement. If we look at more SDG-oriented spending, we find in 2016 that only 10% of total ODA was in fragile contexts. The small amount of ODA de facto aimed at SDG efforts in fragile contexts shows the importance of support mechanisms that attract private capital for development in areas affected by FCV.

»Private investors are more agile and innovative than the slowly moving development tankers.«

A second argument for private sector engagement in fragile contexts is that private investors are valuable implementing agents for the SDGs, complementary to development agents. Private investors are more agile and innovative than the slowly moving development tankers, injecting not only capital, but also supporting the development of companies and hence economies as a whole. Successful development agents in FCV contexts (esp. in economic

development) must adapt to local market dynamics shaped by more institutions and powerbrokers than the state alone.⁴ This requires a certain flexibility that we find more with private sector investors than politically loaded development organizations.

»Volatile security and political uncertainty are a major constraint to investment.«

POTENTIAL AND CHALLENGES TO PRIVATE INVESTMENT IN EMERGING AND FRONTIER MARKETS

Emerging markets are characterized by low local debt, fast-growing GDP, somewhat developed equity markets and market exchange. Yet, these markets are not subject to elaborate regulatory standards and do not have sufficient market efficiency. Investors need to be aware of possibly insufficient infrastructure, and of political and monetary uncertainties. In FCV contexts, investors face even less mature frontier markets. Frontier markets face a very low level of diversification in the financial sector, are comparatively small, less liquid and rather affected by volatility. Investors are confronted with the infrastructural and political characteristics of a developing country and with a greater lack of informa-

tion about investment-relevant processes.

At present, fragile states receive less than 10% of all FDI. Considering the great need for private investment this raises the question of how to improve incentives for private sector investment in fragile states. FCV countries hold growth potential unmatched by saturated developed markets. In addition, fragility serves as a natural “market protection” for companies equipped to deal with the volatility of these markets. Yet, these incentives are usually overshadowed by the considerable risks of FCV.

Naturally, volatile security and political uncertainty are a major constraint to investment. Yet there are additional reasons that are often not addressed adequately by technical assistance:

First, private investors require more than an investment pipeline and knowledge of the potential of frontier markets to build a viable case for investment at an acceptable level of risk. Despite improving business environments and GDP growth, investors struggle in frontier markets because of the lack of effective market institutions, e.g. end-to-end logistics companies or market research firms.⁵ Moreover, investors often perceive frontier markets as unattractive due to their high share of low-income consumers.⁶ Investors mostly target large and “high end” medium-sized enterprises, because smaller companies are usually not considered investable. To absorb investments, smaller companies require additional – cost-driving – support that is disproportional to the investment, e.g. managerial expertise and access to networks or synergies with other investees.⁷ Most companies in fragile states classify as small- and medium-sized en-

terprises (SMEs), hence the number of companies attractive for investment is limited. The general low level of investments in FCV contexts is additionally constrained by the low level of investment in SMEs. This implies a further barrier to sustainable development, as SMEs are crucial for creating jobs and sparking innovation.

VAS-Y! UNLOCKING PRIVATE CAPITAL FOR DEVELOPMENT IN FRAGILE STATES

Vas-Y is a public-private partnership model for development agencies and private equity investors, which is looking to address the challenge of raising private capital for development. It refers to the French phrase “vas-y”, or “go ahead”, reflecting the need for development cooperation actors, investors and small companies to break new grounds for economic prosperity. Unlike existing models, Vas-Y’s idea is to trigger investment with two main gears: (i) it supports investors to build profitable investment cases in frontier markets at predictable risks and costs; (ii) it channels investment to SMEs that account for the largest development potential.

The partnership approach: Vas-Y builds on the understanding that investments always consist of a capital injection and technical assistance in forms of skills and knowledge transferred to the investee. While the capital injection fuels the investee’s economic growth, technical assistance ensures its sustainable operational performance. Separating financial investment from technical assistance (TA) allows private equity investors to focus on the former and allows development organizations to support the investor in providing the latter, valuing the complementary strengths of each actor. Investment man-

agers have the capability to raise funds for injecting capital in the investees, manage the investments through active engagement, and implement exit strategies. With TA as their core business, development organizations are able to provide the technical resources needed to build a viable case for an investment in these high-growth markets at an acceptable risk in close co-operation with or through the investor.

Targeting SMEs: Investments in SMEs contribute to growth and stimulate ripple effects in entire markets, as they are the backbone of most frontier economies. Yet, while larger firms may find access to finance, SMEs remain underserved by financial institutions, which is one of their biggest constraints. Frontier markets lack the institutional context and resources to provide access to different forms of financing, such as equity financing – in particular, private equity.⁸ Private equity investments, unlike debt financing, do not require investees to provide guarantees or collateral to investors, but rather shares of the company. Through this arrangement, investors and investees align their goal: sustainable growth of the company. Vas-Y addresses the financing gap and taps into opportunities to foster economic growth. Providing technical assistance resources helps private equity investors to build a business case for investments in SMEs. This drives down the management costs of investment funds, guarantees the investees will improve business performance and provides the platform to offer complementary support.

THE GRASSROOTS BUSINESS PARTNERSHIP

Although Vas-Y offers a new institutionalized approach to unlocking private capital

for development in fragile contexts, the core components of this approach – distinguishing technical assistance from financial investments – have been tested: In 2004, the IFC set up the “Grassroots Business Initiative” to tackle issues of financing and provide support to companies with a positive economic and social impact. In 2008, the initiative became an independent non-profit spin-off from the IFC named “Grassroots Business Partners Inc” (GBP), operating under the brand name “Grassroots Business Fund” (GBF). In 2011, GBP launched the “Grassroots Business Investors Fund I LP” (GBI-I), a private mezzanine investment fund, working in conjunction with GBP, to provide quasi-equity investment capital and targeted business advisory services. The GBF aims to grow viable, sustainable and inclusive businesses that generate earnings or cost savings for people. It identifies high-impact businesses in developing countries and grows them to amplify their social and economic impact. The cooperation between GBP and GBI-I is successful. GBP has conducted more than 450 business advisory service assignments, enabling investments by GBI-I of USD 42.7 million in 33 high-impact companies since 2011. The number of indirect beneficiaries reached globally amounts to 5.3 million people.

HOW DOES VAS-Y WORK?

Vas-Y is built around a non-profit technical assistance facility (TAF), which serves as platform to manage the partnership between development organizations and private equity fund managers (orange bubble). The TAF is founded and managed by one or more investment managers (dark green oval circles), interested in extending

their investment portfolios to fragile and SDG-relevant markets. The purpose of this TAF is fourfold:

- It provides financial and logistical support for identifying and doing the due diligence of potential investee companies. As such, it matches the development organization’s knowledge of local markets with the due diligence capabilities of investment managers.
- Once potential SME investees (light grey oval circles) have been identified, the TAF provides, manages and coordinates the technical assistance that accompanies financial investments by private equity fund managers. This technical assistance is needed to ensure a sustainable development of the benefitting companies and hence to de-risk the investments of fund managers.

>There is ample reason to consider embedding Vas-Y in a broader programmatic approach.<

- It develops and applies a standardized SDG-sensitive evaluation and monitoring system, to measure the social and

environmental impact of the investment portfolio.

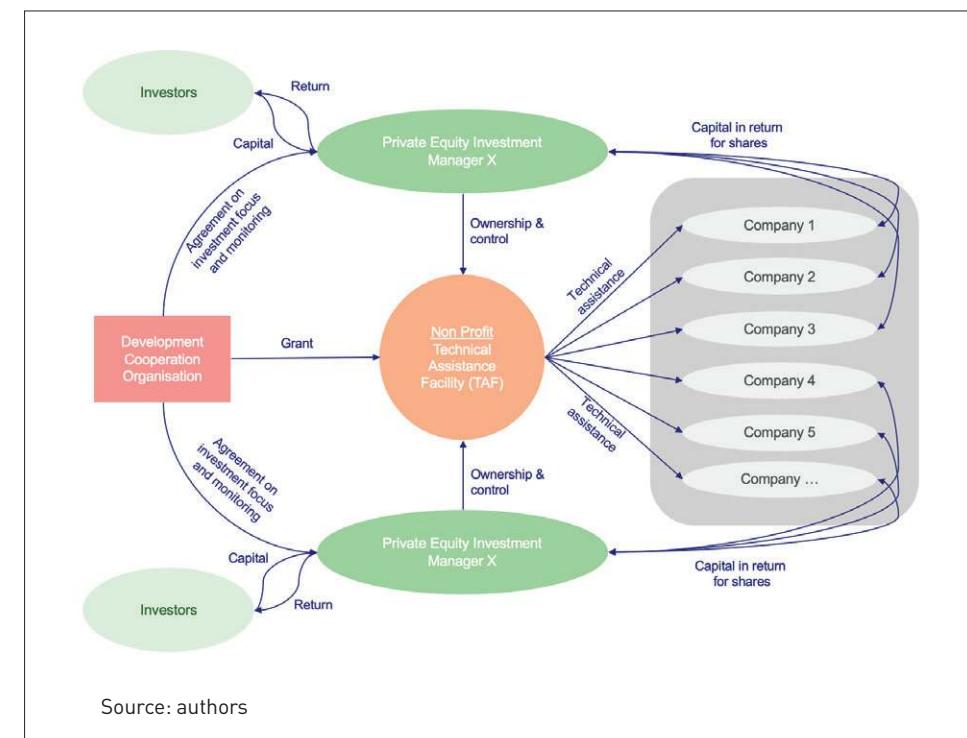
- It represents a platform for investment managers to coordinate and represent their interests toward donors or governments, helping to further improve investments in fragile countries.

It is crucial that the TAF is managed by investment managers participating in the scheme. Fund managers are accountable to their own shareholders. Investors therefore must have the managerial freedom to

design and implement the technical assistance according to their own choice. Further, the investment managers often have more detailed knowledge of business administration and economics for responding to the needs of the investee companies.

The structuring as a non-profit entity allows development organizations, development banks and other actors (see red box) to financially support the TAF through grants or other financing schemes like public-private partnerships – often the only direct financing instruments available

Figure 1: Vaz-Y: Public-private partnership model to leverage private equity investment for frontier markets



to these organizations. Through financially supporting technical assistance, development organizations drive down the costs of investment managers and set incentives to engage in SDG-relevant markets.

»An effective partnership is required to drive a company's growth and a nation's economic prosperity.«

To benefit from the support that development organizations channel through the TAF, private equity investors must commit to focusing their investments in SMEs in fragile countries and SDG-relevant markets and agree on respective monitoring systems. Furthermore, fund managers must demonstrate their ability to raise funds as well as verify a track-record of successful investments, in order to prove the ability to fulfill their role in the partnership.

Considering the decades of experience development organizations have in fostering conducive business environments on the meso (i.e. helping to form business associations) and macro levels (i.e. advising

national governments on trade policies), the model foresees the support in these areas as encapsulating the investments in a suitable environment. Hence, while Vasy could be designed and implemented as a stand-alone solution as part of any private-sector development initiative, there is ample reason to consider embedding it in a broader programmatic approach.

PROVIDING SUPPORT AND INVESTMENT TO SMEs IN THE TOUGHEST MARKETS: THE CASE OF INFRONTIER

Afghanistan is considered one of the most challenging environments for investment. InFrontier is the only private equity investment fund in Afghanistan. It has a portfolio of over USD 30 million, including investments in an insurance company, a broadcast technology provider and an agri-processing company. The London-based fund has offices in Afghanistan, Pakistan and Uzbekistan. The local proximity is key to its success. One of the biggest challenges was to convince financial backers that the fund will succeed in a fragile context. Yet, according to co-founder Felix von Schubert, the increased risk is expected to pay off through risk-rated returns. Another challenge is the search for qualified personnel for its portfolio companies. Companies often lack management capacities or basic financial and operational systems. Schubert stresses the importance of the InFrontier teams presence on site and the technical assistance it provides to its companies. Through the deployment of experts and customized capacity development, investees are equipped to introduce new products, establish new partnerships and expand regionally. Such measures are not a special characteristic of investments

in fragile contexts but substantially more challenging to implement. The lack of local service providers, such as auditors, certification companies or payment providers, are another major hurdle that often must be sourced from neighboring countries. InFrontier measures its impact through its concept of "Whole Sector Impact", describing its impact of investing in market

leaders that transform entire sectors. InFrontier does worry that development organizations often lack an understanding of how private investors operate and the value they provide to companies. For that reason, von Schubert stresses that an effective partnership is required to drive a company's growth and a nation's economic prosperity.

¹ UNDP. (2018). UNDP launches 'SDG Impact' to help unlock investment in Global Goals. [online] Available at: https://www.undp.org/content/undp/en/home/news-centre/news/2018/UNDP_launches_SDG_Impact_to_help_unlock_investment_in_the_UN_Global_Goals.html [Accessed 5 May. 2019].

² Our understanding of context of conflict, violence and fragility (FCV) refers to the concept of fragility suggested by the OECD. 2016: 16. States of Fragility 2016: Understanding Violence. OECD Publishing Paris, <https://doi.org/10.1787/9789264267213-en>

³ All numbers in this paragraph refer to OECD. 2018. States of Fragility 2018. OECD Publishing. Paris. <https://doi.org/10.1787/9789264302075-en>

⁴ Minoia, Giulia and Urs Schrade. 2018. "No more standard programming: economic development in fragile settings. Lessons from Afghanistan". Overseas Development Institute (ODI). SLRC Policy Brief. London.

⁵ Khana, Tarun, Palepu, Krishna G. and Jayant Sinha. 2005. "Strategies That Fit Emerging Markets." In: Harvard Business Review, Vol. 83(6), p. 63-74.

⁶ Bhaumik, Sumon Kumar and Stephen Gelb. 2005. "Determinants of Entry Mode Choice of MNCs in Emerging Markets: Evidence from South Africa and Egypt." In: Emerging Markets Finance and Trade, Vol. 41, Issue 2, p.5-24.

⁷ A good example in this regard is InFrontier, the only private equity fund based in Afghanistan. InFrontier placed an investment in the Insurance Corporation of Afghanistan (ICA), the country's largest insurance company and a pioneer in developing health care insurance in Afghanistan. To accompany the capital injection and secure a sustained growth, InFrontier recruited a new management team for ICA, helped to improve accounting and risk management systems, introduced new standards, developed customer feedback policies, and more.

⁸ In India, for example private equity investors focus on companies with an annual revenue between 2 and 500 million USD and in Vietnam, private equity investors prefer a company size of 10-20 million USD annual revenues.

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**Education and
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Rethinking higher education for the emerging needs of society

A new university model bridging skill-gaps and meeting community needs

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Abdullah Güll University (AGU) is a recently established Turkish university serving as a platform for an on-going R&D project aiming at pioneering "New Generation Universities" by blending the three university missions (education, research and societal impact) via innovative approaches and a strong international focus.

INTRODUCTION – AN EXPIRING EDUCATION MODEL REQUIRING A REVOLUTION

Universities are currently experiencing a general crisis in aligning their research functions and curricula with current job requirements and trends. Higher education institutions (HEIs) are no longer seen as the only source of information. Students demand to develop their competencies for real-world problems while moving away from theoretical knowledge. Changes in technology, social life and economics call for a change of traditional teaching and research methods.

Current discussions on the global employment crisis and the future of work have emphasized the urgency of reskilling, lifelong learning, and the way higher education (HE) should collaborate with the labor market. Unfortunately, the lack of insight into upskilling and reskilling requirements and processes makes it difficult for HEIs to prepare students for the 21st-century job market.

In this new digital world where information is easily accessible, a pedagogical revolution is taking place. Traditional teaching methods – transferring theory in the form of teacher-centered lectures is losing its value. The new generation of students (Gen Z) expresses a different set of needs and expectations from education systems. Changes in technology, environment, social life and economy compel students to turn toward new learning experiences where they are more active, motivated, innovative and can develop high-impact skills as well as transferable knowledge.

The changes also affect human resources and reveal different needs in HE. Current trends define new types of

teaching methodologies, where instructors should be equipped with instructional design, project management, and coaching competencies. They should be able to provide safe learning environments for students to realize their full potential to become self-directed learners.

»The new generation of students expresses a different set of needs and expectations.«

Technological developments can also be seen as an important sustaining power when considering changes in HE. Flipped classrooms, open online courses for a broader audience, mobile applications using gamification and game-based learning, micro-personalization of learning, powered by continuous measurements (learning analytics), big data-based decision-making to support the improvement of mechanics at system level, are just a few of the new opportunities that have emerged as a result of the digital age.

All layers of global societies are changing and facing new challenges (sustainability, health and food, security, etc.). Because of all these disruptions, a radical change in the HE sector was also in-

evitable. Unfortunately, existing HEIs have been using old paradigms, with some minor modifications since the 16th century (classroom setting, assessment systems, etc.). This shift between societal expectations and the delivery of HEIs has been aggravating the employment crisis affecting our global societies. Young people are particularly concerned, as they are three times more likely to be unemployed than their parents; with about 80 million youth worldwide currently looking for work.

»A radical change in the higher education sector was inevitable.«

These phenomena have a significant global impact. According to the World Economic Forum (2017) and research done by Gartner Inc. (2018), 25% of adults reported a mismatch between their current skill sets and the qualifications required to do their job. In 2019, the World Economic Forum reported that 54% of workers would require upskilling or reskilling over the next five years. Another critical consequence, which has become a global challenge itself discussed at major international events (i.e. ISYEC, 2014, 2016, 2018), is the increase of youth unemployment worldwide, which is above 15% in

the European Union, 20% in Turkey and France, and over 30% in Italy and Spain (OECD, 2018). This issue is mainly due to a disconnect between HEIs and society's stakeholders. The skill-gap is widening, as university graduates' knowledge, experience and skillsets no longer match employers' expectations.

These current trends and needs force universities to move to a different educational paradigm. Many have already put significant thought and effort into initiatives to change HE approaches, reshape expiring systems or redesign traditional methods. In a time of booming technological advances and innovations, one of these institutions has proposed the Socio-Technical University Education Model as a response to this shortcoming. Also expressed as New Generation University (NGU), the model, currently implemented at the Abdullah Gül University (AGU) in Turkey, involves a blended learning approach and a competency-based curriculum with a societal impact structure. The current form of this new model is the result of numerous search conferences and the participation of over seven hundred stakeholders from various sectors. It was also significantly shaped by the many discussions held during major HE summits (i.e., NAFSA, EAIE, APAIE, EURIE, Times Higher Education Summits) and visits to renowned HEIs.

A NEW HE MODEL IN THE DIGITAL AGE

Creating a unique university structure

The proposed model is based on a cross-sectoral collaboration between the state, companies and NGOs, which join forces for the design of a more relevant HE system. Since this model requires wider and

stronger participation of stakeholders, close cooperation is established to bring together the leaders of the industry, business and civil society. Its sole purpose is to focus on mutual vision and mission statements for the development of the university and the achievement of its goals.

The stakeholders involved in this model aim to launch an innovative HE model that creates a multiplying effect between education, research and societal impact. The result would be the creation of an NGU model generating world-class performance in all three university missions – education, research, societal impact – (Figure 1) with a special focus on societal impact, and the following objectives:

- Contribute to the development of societies and communities by focusing efforts on global challenges and integrating "societal impact" into institutional core activities.

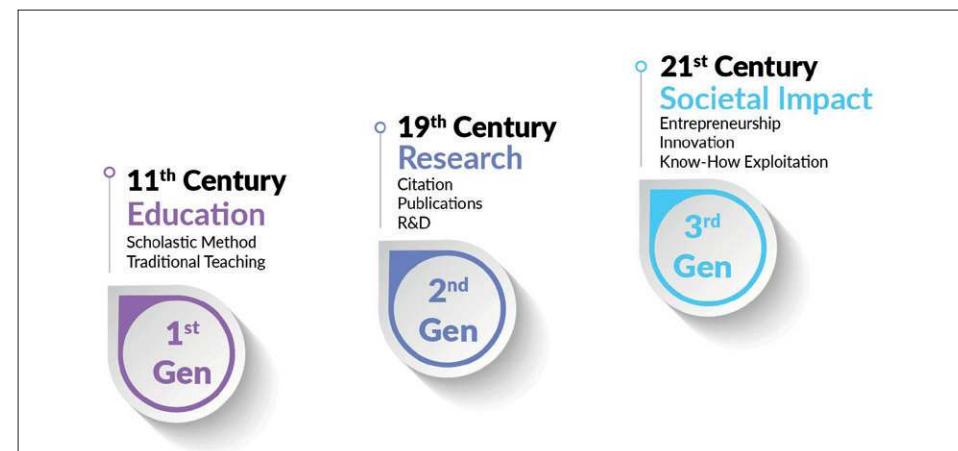
- Bridge the skill gap that exists on international job markets. Meet employers' expectations by creating a new kind of graduate, equipped with the most up-to-date skills, as well as international learning and work experience.

- Build top quality campuses and attract the best talent (staff and students) to create an academic environment and structure to trigger the production of cutting-edge integrated research in the most relevant fields.

Creating a unique university vision

Although giving individual emphasis to education, research, and societal impact, contemporary universities are struggling considerably with the integration of these three functions into their systems. While these functions are often considered separately, this new model sets out to design the multiplicative rather than additive ef-

Figure 1: HE model creating a multiplying effect between education, research and societal impact



fect of these three interactive elements. It also includes the remodelling (reskilling) of education and research functions through contribution to society. The design puts forward a university model that focuses on contribution to society and integrates it with education and research. It is possible to summarize this approach with the following three basic principles:

- Community-oriented university
- New education and research paradigm based on real-life experience
- Blended university functions (education, research and community contribution)

Through partnerships and learner-centered approaches, the model aims to

develop citizens who can shape the future by converting knowledge into personal and social values. The model has also adopted an approach of training students in 21st century skills, including adaptability, creative problem-solving, communication, teamwork, entrepreneurship, innovation and know-how exploitation to seek solutions to global challenges.

Implementation of the vision via a “Multiplier Impact Platform”

This new model places societal impact in all core institutional operations and enables interaction, through projects, with the other two university missions: education

and research. For a multidimensional approach and multiplied impact, all institutional activities are processed through a unique structure called “Multiplier Impact Platform” (Figure 2).

Implementation of the vision via new innovative units

The implementation of this new model may trigger the creation of numerous unique departments, such as a non-formal education resource center for the social and personal development of youth, a center for continuing education, a center for gifted children and a center for academic development and support.

It also requires the strengthening of key existing units such as the technology transfer office, specialist services for students, the internationalization committee, and the graduate school.

The launch of the “3dC”: a competency-based curriculum

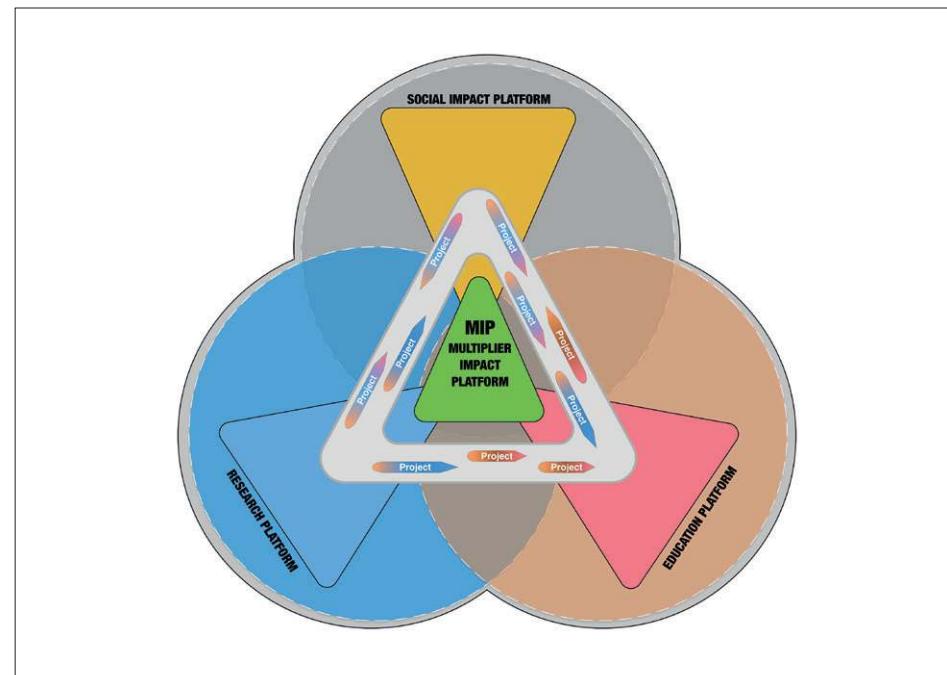
In terms of organizing university life, the curriculum is not only a set of courses, but also an element that plays a crucial role in students' personal and professional development. At the same time, it regulates the living space where life experiences and learning are accumulated. The aim is to ensure that individuals will be able to transfer information gained in this space to other living spaces and create added value.

The business world often laments the fact that graduates don't possess the required competencies, which universities should master and train. A competency-based curriculum structure has the potential to eliminate this problem since it emphasizes the cooperation and collabo-

ration of local, national and international companies to provide support for curriculum/course development, meaningful research and placement opportunities. In that sense, a competency-based curriculum approach can be helpful in meeting the expectations of the business world.

>>A competency-based curriculum approach can be helpful in meeting the expectations of the business world.<<

Figure 2: Multiplier impact platform



curriculum are determined in harmony with the "Constructive Development Theory" developed by Robert Kegan, a former Harvard University developmental psychologist. According to his theory (Figure 4), most of the students enrolled in the university are expected to have a "Social Mind" where their sense of self and understanding of the world are shaped by external sources (family, society, ideology, culture, etc.). Beyond meeting their own needs, they consider collective interests and social relationships. "3dC" aims to enable these students to graduate as individuals with an "Autonomous Mind" and with the ability to develop a new "I" with

thoughts, feelings and beliefs that are independent of standards and expectations. Graduates also acquire an internal sense of direction and the capacity to create their own course. In this stage, it is crucial to provide necessary counselling for students.

The first dimension, the "Personal Development Path" contributes to that purpose and enables students to develop as creative, passionate and entrepreneurial individuals. This dimension embraces personalized educational content for skill and competence development, enabling students to mature psychologically, socially and culturally. The goals of this path

are determined in harmony with Kegan's theory.

The second dimension, "Glocal Challenges Path," includes courses addressing "glocal" issues aligned with UN Development Goals, for example: Entrepreneurship & Innovation, Health & Food, Cities & Societies, Immigration, and Sustainability. These courses are taught using learner-centered and active learning principles with the objective of improving students' 21st century skills. Lessons are composed of student-produced content including papers, presentations, ideas, projects, posters, videos and games in small groups, in order to provide solutions for complex global problems. These courses, led by multidisciplinary teaching teams, also enable faculty members to bring their

disciplinary expertise into the classroom and use active learning methods.

The third dimension, "Professional Development Path," is implemented in the form of learning units called "Capsules." The capsule system breaks down and replaces traditional course-based curricula as it is based on core multidisciplinary projects requiring learners to receive professional training and close the gap between theory and practice via hands-on approaches. This new method, which is now being tested in the AGU Electrical-Electronics Engineering Department, involves a structure triggering learning according to the needs of real-world problems and also improves students' motivation/engagement as they produce tangible outcomes. An integrated assessment system prioritizing

Figure 3: 3-dimensional Curriculum (3dC)

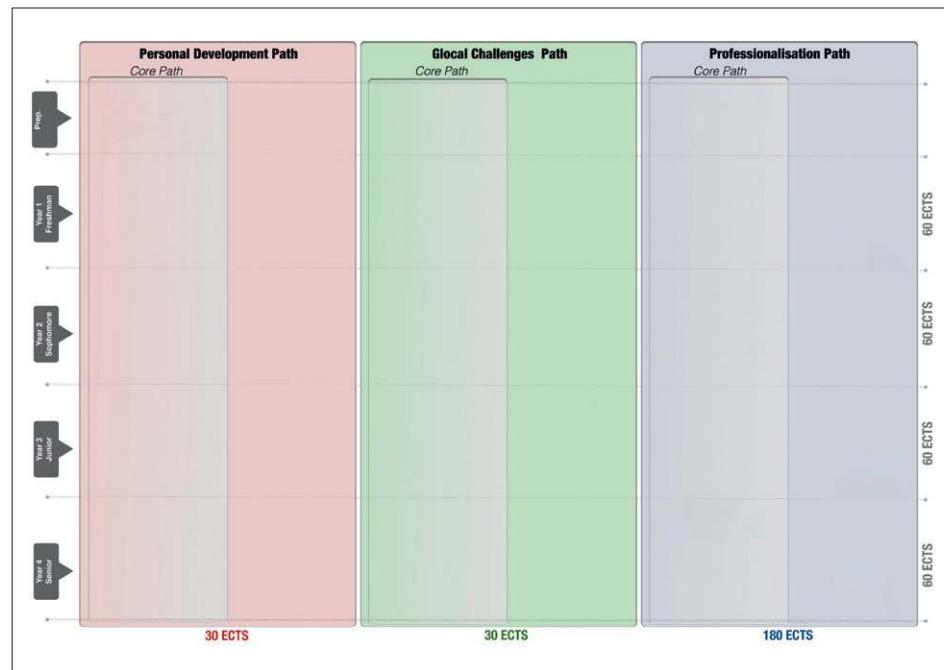
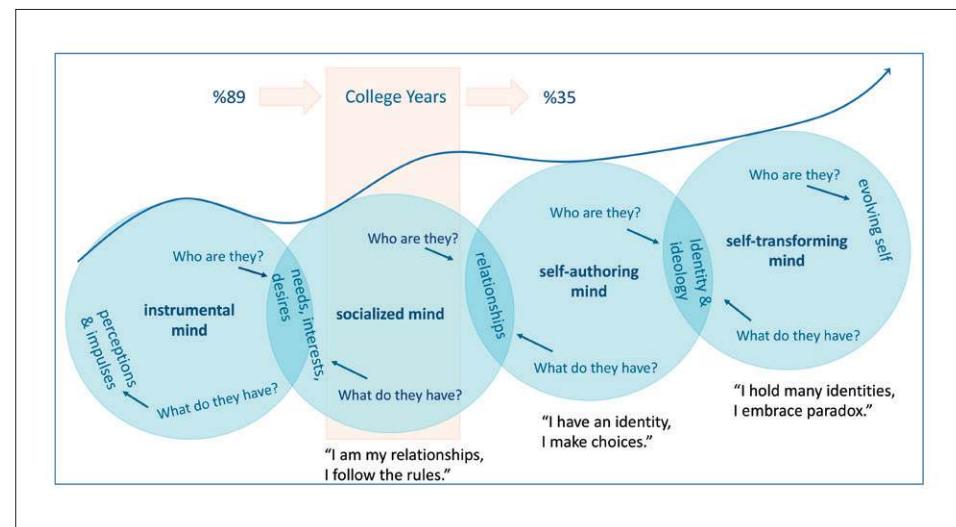


Figure 4: Illustration of the "Constructive Development Theory" developed by Robert Kegan



the process over exams, a requirement for extracurricular and peer learning, as well as co-teaching and the synchronization of blended materials from different courses make capsule-based learning unique.

»A new kind of graduate equipped with 21st-century values and skills will be more capable of finding solutions to global issues.«

CONCLUSION AND RECOMMENDATIONS

The launch of the NGU project in 2010 triggered several challenges but also produced many rapid achievements. This suggests that the innovative HE model encompasses several pertinent measures with the potential to positively impact our global society and solve the growing skill-mismatch problem. A new kind of graduate, equipped with 21st-century values, knowledge and skills; will be more capable of finding solutions to global issues and contributing to the recoupling process of economic and social prosperity.

HEIs should evolve into the third generation by addressing all three university missions, using a blended approach for an optimal and multiplied effect. The third mission, societal impact, and cross-sectoral approaches should be prioritized by HEIs in order for them to remain connected with all their stakeholders and be able to produce useful academic content and services. Contemporary HEIs willing to be relevant and have an active role in our globalized societies should also open up and embrace internationalization. They should design more programs taught in foreign languages, create international institutional environments via internationally friendly rules and regulations, adopt global educational approaches and methods, produce research relevant to global trends and needs, forge fruitful international connections and collaborations, grow multicultural communities, etc. The new needs and trends will require HEIs to adopt new visions and implement them by establishing innovative units, platforms, curricula, programs, courses, methods, etc. Interdisciplinary research, education and training of faculty members should be emphasized due to the complexity, interconnection and constant evolution of global issues. Solutions to these can only be found using the combination of diverse expertise sets.

It was also observed that the interdisciplinary approach helped faculty members develop their skills and strengthen institutional bonds. Students' skill development, led by a hands-on training approach and a learning-by-doing philosophy, has been significant and appreciated by the industry. Student-led social development projects of the Glocal/Personal Development

paths, where 80% of students take part in volunteering projects, made an observable positive impact on communities. The new model has also received great student approval, with a 100% retention rate of pilot program participants.

In addition to the previously mentioned results and achievements, the model posi-

tively affects the approach and mindset of stakeholders towards HE. While they may sometimes experience uncertainty due to the novelty of the project and the lack of a guarantee for future successes, they are all convinced of the project's merits and feel part of a meaningful and groundbreaking initiative.

¹ Globe-local, glocal means to think globally, act locally and think locally, act globally.

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Strengthening labor protections for 21st century workers

We need to recouple conversations around the future of workers and the future of work

The authors:



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TANDEM
RESEARCH

Tandem Research is an interdisciplinary research collective that generates policy insights at the interface of technology, society, and sustainability. We believe that evidence-based policy, supported by broad-based public engagement, must steer technology and sustainability trajectories in India. We aim to bridge gaps between social science research, public policy, and public engagement. Our work seeks to ensure that no one gets left behind in the technological transitions that will shape India's future.

The International Labour Organization's latest World Employment and Social Outlook for 2020 paints a bleak picture of the future of work. Unemployment is projected to rise in the next two years and income inequality is higher than expected. Labor markets are inherently unequal, unable to provide decent work for enough people. 188 million people want work but can't find it; 120 million people have given up searching or can't find work yet and 165 million don't have enough work. In other words, nearly half a billion people are under-utilized.¹

In this context, governments and people are looking to digital platforms to create new employment opportunities. Digital platforms are restructuring the world of work, as they connect and aggregate the supply and demand of work, within and across geographical contexts. Are platforms the future of work we want? How can we enable labor protection in the changing world of work? What should the priorities for G20 countries be?

It is important to note at the outset that labor market conditions differ hugely across the G20 and policy frameworks will need to be adapted to country contexts. While much of the dominant narrative emphasizes values of entrepreneurship and innovation, the impacts are likely to differ across labor markets and across social groups. In industrialized economies for example, digital platforms are disrupting traditional employment relationships. In contrast, in many parts of the Global South, gig work within the informal sectors of the economy is already the norm. For high-skill labor, digital platforms may offer opportunities for flexible work, but for low-skill labor, platforms can create

new forms of precarity and dependence. Policy prescriptions will need to be tailored to suit these varied contexts and needs.

»Online work presented one of the few avenues for work to differently abled people.«

DUALITY IN THE GIG ECONOMY – THE BENEFITS AND PERILS

Digital platforms can certainly address underemployment and contribute to the standardization of working conditions across sectors. By aggregating demand and supply for work, digital work platforms can enable workers' access to opportunities for paid work. By enabling more hours of paid work, and thereby offering the possibility of increased earnings, digital work platforms could contribute both toward reducing underemployment and creating possibilities for economic mobility. A study on ride hailing drivers in Indonesia, for example, found that most drivers report higher earnings since joining the platform.²

Digital work platforms can potentially bring some form of organization to informal urban services – standardizing wages, standardizing services, certifying employ-

ers and workers, and clarifying expectations from workers and platforms through a formal written contract. Digital labor platforms can also present new opportunities for marginalized groups like women, migrant workers, and differently abled people to find work. During a study of microwork platforms in India, we found that online work presented one of few avenues for work to differently abled people or women whose mobility was restricted because of care responsibilities or social norms.³

»Platforms in their current form undermine worker agency and solidarity.«

The labor of many workers in the unorganized sector of the economy is unrecognized and invisible. Gig work on digital work platforms could enable the registration of these workers and their work. Many times, workers in these sectors need formal identity papers, proof of training or skills, access to formal banking, a standardization of wages and some stability of income. These aspects are rendered visible through these platforms, even if, as is often the case, this highlights the precarious conditions of work for many workers. Finally, digital work platforms could enable the collection of data about the informal economy, which has so far been hard to measure and understand, and thus

contribute to more informed labor market policy.

But digital platforms can also produce precarity as workers lack benefits associated with formal employment – paid leave, health insurance, or other forms of social protection. Platforms also shift the cost of operation to the workers themselves – workers are responsible for maintenance costs, fuel or transport, data and phone plans, and even the cost of products necessary to provide a service.⁴ Home service workers and beauty care workers are expected to purchase cleaning products or beauty products on their own; oftentimes the platforms mandate that their branded products are purchased. Such working arrangements contribute to the individualization of risk. A number of structural features of informality also persist with platform work – power and informational asymmetry between workers and employers/platforms; unpredictable wages and working hours; little to no bargaining power; and constantly changing or unpredictable patterns and rhythms of work.⁵

However, some regulations have been introduced to address labor well-being on platforms. For example, the European Union has approved setting minimum rights for gig workers, pushing for more transparency, fair wages, and compensation for cancelled work.⁶ California's newly introduced AB5 seeks to reduce the misclassification of workers of 'independent contractors'.⁷ India's new Code on Social Security will ensure that all workers including platform workers receive social security benefits, though questions about enforcement remain.⁸

Yet, despite these social protection measures, platforms in their current form

undermine worker agency and solidarity through new forms of algorithmic and reputational control. Workers have little understanding or access to the systems that determine their conditions of work, nor the capacity or knowledge to negotiate these opaque and automated systems. Platforms are known to use gamification tactics – sowing competition among workers for small rewards to keep workers working longer. Workers are prompted to work or log on to the app with the promise of earning incentives that sometimes do not translate to much higher wages.⁹ While exploitation is in fact a condition of the informal economy, the difference with automated decision making systems is that the exercise of power is both undecipherable and invisible; the absence of human intermediaries reduces space for negotiation and compassion. The use of reputational control systems is common on platforms, and this is amplified by social structures of gender and class, and the differential opportunities for work and mobility this creates.¹⁰ Ratings are usually based on the affective and emotional labor workers must put in – friendliness, affability, conversation – over and above the core service they are expected to provide. However, customers and clients can be arbitrary in their rating of workers thus impacting their ability to earn money.

CHANGING WORKPLACE DYNAMICS AND RESPONSIBILITIES

How can worker well-being be enhanced and some of these negative effects curtailed? For one, certain responsibilities toward labor well-being need to be imposed on platforms based on the type of employment relationship that is being crafted and

the degree of control exerted by the platform. The type of control and extent of control a platform exerts over workers should determine the obligations and responsibilities expected towards workers. These are dynamic rather than fixed categories, intended to provide a framework to think about platform responsibilities in the context of changing employment relationships.

Control could be behavioral – i.e. the extent to which the platform directs and controls how the worker does the task for which he or she is hired. This could include the provision of training and equipment to workers; when and where to work; and evaluation systems that judge worker performance. Control could also be financial, in terms of the setting or adjusting of wages; the method of payment; or the investments required by workers to engage on the platform. Control could also be relational, including the freedom to seek other opportunities on other platforms; the ability of platforms to terminate employment; and other terms and conditions articulated in a formal contract.¹¹ (See attached Figure)

Low control

This category includes platforms that primarily aggregate labor demand and supply, connecting workers and work, where all job-related tasks and terms of engagement occur outside the platform. At low levels of control, the platform responsibilities may be derived solely in terms of its role as an aggregator. It would thus include establishing:

- clear and transparent terms of use;
- clearly communicated and comprehensible policies for data collection and usage; and

- grievance-redressal mechanisms related to any abuse on the platform or violation of terms of use.¹²
- Platforms should be required to enable identity portability, so workers can transfer their experience, reputation, and earning levels across platforms.

Medium control

This category includes platforms in which tasks or jobs are done through the platform and are monitored until their completion. Prices and terms of pay are set by the platforms and transacted through the platform. However, there is little to no involvement in how the job is done, though customer-rating systems determine worker access to future work. At medium levels

of control, platform responsibilities can be expanded to include:

- transparent and predictable payment terms;
- clarity of rating criteria, including options for seeking clarification or redressal on ratings;
- accessible and responsive complaint and feedback mechanisms; and
- platform contributions toward accidental or occupational insurance.

High control

This category includes platforms in which tasks or jobs are completed through the platform and wages and terms of engagement are set by the platform. There is a high degree of control in terms of how the

tasks are carried out, though a standardization of equipment and the provision of training. At higher degrees of control, platform responsibilities would further expand to include:

- mandatory, pro-rated contributions to social protection programs, including a retirement fund and health insurance; and
- provisions for sick leave and maternity leave.
- These benefits should also be provided to workers on a portable basis.

»Historically, piecework or gig work is seen as some of the worst type of work.«

SITUATING PLATFORMS AND LABOR PROTECTION IN BROADER LABOR MARKET SHIFTS

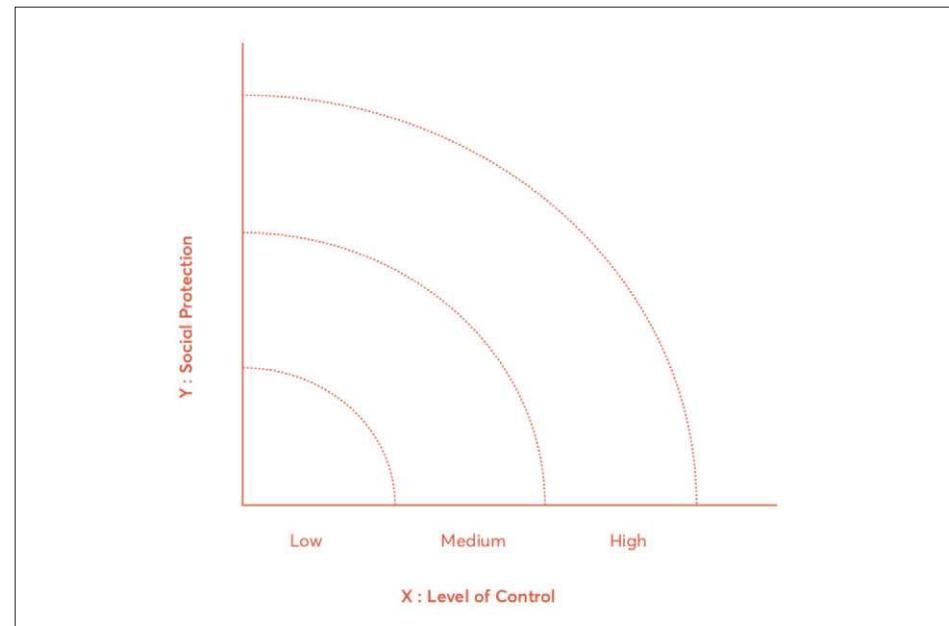
While platforms entered into the public imagination through a narrative of micro-entrepreneurship, autonomy, and independence, this narrative obscures the recent historical origins of platform work, which arose as a result of the financial crisis in 2008. The unavailability of jobs forced people to monetize their assets¹³ through ride-sharing or room-sharing platforms initially. Self employment was not a choice but a necessity. The on-demand economy was hailed by investors in Silicon Valley for

disrupting the traditional workforce, and investments poured into similar services.¹⁴ Even historically, piecework or gig work is seen as some of the worst type of work, a reality only too well known in the Global South. The rise of the platform economy has also coincided with the breakdown of traditional working arrangements as non-standard employment and contractualization have grown globally.

Platforms thus on the one hand seem to represent a paradigm change, but if seen closely they reflect an ongoing transition in the world of work, with growing contractual work, a declining labor share of national income, and growing inequality between capital and labor. Platforms, in their current form, should thus neither be seen as the desirable nor progressive future of work they are often portrayed to be; indeed, incomes do rise, and for some people they enable more work and better working conditions, but on the whole, they can also contribute to precarity and insecurity. Additionally, platforms do not accommodate workers' aspirations or mobility. The on-demand workforce is designed to perform a specific task for the platform – there is little no pipeline for career progression especially for those in low-skill work. They bring greater consumer convenience and benefits to technology companies but reflect the continuing degradation of labor.

It is important that we keep these structural issues in mind as we design policies for the platform economy. These policies should not be thought of in isolation from broader interventions needed to improve the health and functioning of labor markets. Thus, reforms to improve platform workers' conditions should be placed within the larger context of improv-

Figure 1: Platform responsibilities



ing rights for contractual workers generally. With the shrinking of jobs in manufacturing and the automation of services, return to traditional forms of employment and labor market structures cannot be expected. There is a need to devise new forms of labor protection suited to new working arrangements and covering new job roles and workplaces.

Finally, the link between work and place is important – beyond social protection and income security, work also builds solidarity, gives meaning, and nurtures aspiration. Decentralized work, whether through platforms or contractual work, impacts social organization and contrib-

utes to alienation, a loss of bargaining capacity, and loss of solidarity. This is not to hark back to the past of work, but to push us further to think how digital technologies can enable solidarity and community. G20 countries, through supporting research, labor unions, and civil society, should also support the development of new forms of platforms – co-operatives that are worker-owned and managed – as is already being tried in some places. Equally, workers and worker-support organizations should be supported to leverage platforms for information-sharing that can correct information asymmetries, or aid in organizing and unionizing workers.

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⁷ Newsom signs bill rewriting California employment law, limiting use of independent contractors. (2019, September 18). LA Times. Retrieved from <https://www.latimes.com/california/story/2019-09-18/gavin-newsom-signs-ab5-employees-independent-contractors-california>

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Education and social progress

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In recent years humanity has faced many threats such as growing inequality, populism, aging societies and the narrowing of the demographic bonus (when the working population is larger than the non-working). But there has been another threat in the headlines, perhaps as prevalent as populism and its response to the so-called migrant crisis: the extinction of jobs through automation and robotization in a phenomenon branded “The future of work.”

Don't get me wrong, I don't think the loss of jobs in some companies or the reshoring of others (since it has become cheaper with automation to produce goods back in the developed world) will have the cataclysmic consequences foreseen by Frey and Osborne (2013), who have raised alarms about the potential economic upheaval of computerization. Many positions might be created with the advances in artificial intelligence. The problem is that they won't employ the same people who will be out of work, since the required skills will be completely different.

It is, after all, not just drivers who face losing their work in the near future with the prospect of semi-autonomous cars, buses and trucks on roads across the developed world. Legal professionals may see their numbers diminish, as clerical work traditionally done by novice professionals is transferred to machines. Jour-

nalists may also see changes due to narrative algorithms, where facts and dates only need insertion to create simple news stories, a job that demands lower skilled workers at lower wages. What will come next? Certainly more job extinctions in other branches, as machines learn to do ever more sophisticated tasks.

In this context, it is extremely important for the G20 to think about how to prepare the workforce of the future for this new reality, where not only new professions might emerge, but the old ones (or at least their jobs) might be extinguished in successive waves. This is not only a matter of rethinking curricula in K-12, in technical vocational education and training (TVET), and in higher education, but also of constant skilling, reskilling and upskilling of the workforce.

»Education can build bridges and the vocabulary for a more empathetic dialogue.«

In times of machine learning and algorithms that substitute intellectual work, it is urgent to define exactly what needs to change in the education and training offered to the present generation of learners

who will soon join the workforce of tomorrow.

Although education has a major role in preparing the new generation for the world of work, its role is not limited to ensuring future employability or entrepreneurship. It addresses all that is needed for a healthy, meaningful and active adult life, including the practical exercise of citizenship.

In times of acrimony and populism fuelled by a sense of alienation and the loss of a perceived golden past, education can build bridges and the vocabulary for a renewed and more empathetic dialogue. It can also foster cultural flexibility and develop the skills that emphasize what makes us human.

DEVELOPING SKILLS TO PREPARE FOR THE FUTURE

Joseph Aoun, the president of Northeastern University, outlines in his book *Robot-Proof: Higher Education in the Age of Artificial Intelligence* (2017), what he calls a “learning model for the future.” He cites three new literacies that will be essential: technological literacy, or a knowledge of mathematics, coding and basic engineering principles; data literacy, or the ability to understand and utilize big data through analysis; and human literacy, which equips us for social interactions, giving us the power to communicate, engage with others and assess our “human capacity for grace and beauty.” He adds to this four “cognitive capacities” that people need in the digital economy: systems thinking, entrepreneurship, cultural agility and critical thinking. Systems thinking is a means to create new jobs as old ones are filled by machines. Entrepreneurship is a “creative mindset.” Cultural agility is the capacity to not only

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understand the complexities of the values and attitudes of different countries and local contexts, but also to show empathy and discretion when dealing with people from all over the world. Critical thinking is about making judgments through rational analysis.

Even in K-12, well before people enter higher education, competences may be taught and learned to prepare them for the future. These do not compete with the basic literacies that schools develop today, but rather complement them in important ways and demand changes in the way we teach.

These competences and attitudes include as a pre-requisite curiosity, creativity and imagination, qualities that make us human and thus able to compete with machines and promote social progress. To foster these abilities, teaching must change in a substantive way; after all, it is not through rote learning that we become creative thinkers or develop the curiosity needed for deep learning. Along the same lines, ensuring that the youth of the 21st century remain in school and do not drop out especially in the developing world, where young people abandon schools not only to work, but due to lack of interest in what is being taught, demands much more engaging classes.

The new competences also include collaborative problem solving, which demands not only the ability to incorporate other people's ideas, but also the preparedness and intellectual leadership to push for the student's own contributions. Another set of competences that can be learned at school are social and emotional skills, especially perseverance, resilience, empathy and self-efficacy. The latter were certainly needed for traditional education

as well, but they have become increasingly important in a context of increased inequality, political anger and polarization.

In a recent paper, the OECD (2018) has added an important attitude and competence that should be developed in different levels of education: student agency. It refers to the student's perception that she is responsible for her own learning – and that includes a commitment to building her own future. This certainly addresses the need for developing a "learning to learn" strategy, but also means engagement with her community and with our shared human condition, which is best captured in a global citizenship rubric.

»Access to schools does not ensure fairer chances of moving up the social ladder.«

I bring here two interesting examples from my own country, Brazil. As we are struggling to ensure quality education where the PISA results have positioned us among the 20 worst performing economies participating in the last edition of the international test, in 2018, one of the poorest states has shown quite different learning outcomes. Among its less affluent cities,

Sobral stands out as champion in learning with solid curricula that includes social and emotional skills and innovative approaches to learning. This experience has been scaled up in the whole state and our last national assessment among the 100 best performing schools in the country, 82 are in different cities in Ceará.

EDUCATION AND INEQUALITY, PROMOTING SOCIAL PROGRESS

Education policies can be designed so as to build equity or, on the contrary, to increase social inequality. In various parts of the developing world there is a growing "apartheid", separating children who have access to elite schools from those who receive second-class instruction in low-quality school settings, with low-paid, frequently absent teachers, often accompanied by low expectations. As a result, those societies, already encumbered by large inequalities in income and in average years of schooling of the adult population, not only reproduce the prevalent unfairness but even increase it.

Thus, just having access to schools does not ensure fairer chances of moving up in the social ladder. When we don't set up the system to ensure equity, countries experience not only greater inequality and exclusion, but also greater violence. In many of these nations, the result of poor schooling in vulnerable areas is an increased number of young people who are neither at school nor at work. Some of them join the growing cohorts of drug-dealers or militias, as in many countries in Latin America and Africa.

To ensure that equity is built into education systems, many measures should be taken, such as:

- Investing in early childhood development, through the integration of social policies, including education, social protection and health, from pregnancy to 6 years old, with initiatives such as household visits, vaccinations, conditional cash transfer systems, parenting schools, quality nursery- and pre-schools.

• Creating a system-wide clear curriculum that defines the competences to be developed by every child and adolescent and that also addresses the needs of struggling children.

• Ensuring that the best teachers and principals work at the most challenging schools with quality materials in a safe and healthy learning environment, as done in schools in England, some states in the US and in Brazil

• Including all school-age children in the system and following up with those who may have dropped out of school, with the support of the social protection system. Promising practices to bring back adolescents who have left school have been developed in slums in the city of Rio de Janeiro, in different provinces in India and in even in the US.

• Establishing provisions for kids with disabilities, ensuring that schools include them, preferably in regular classrooms with the additional support they need.

• Structuring teaching and learning in areas where good preservice education and proficient teachers are not available, including with the use of technology to support teachers.

Those are just some measures that the G20 could consider to help build more equitable school systems, but it is important to know that there is no silver bullet to ensure quality education for all. There is,

however, one approach to be avoided: accepting that we should offer second-class teaching and learning to disadvantaged kids.

»We should include personal freedom, nutrition and safety as elements that schools should promote.«

But social progress is not only connected with equity. When, in 2010, some world leaders got together to create a measure of development that would incorporate social and environmental components, they created the Social Progress Imperative, which later became the Social Progress Index, to deal with basic human needs, well-being and opportunity.

If we are to build on the ideas behind this indicator and connect them to education, we should also include personal freedom, nutrition and safety as elements that schools should promote. In many countries, for example, free lunch is provided to underprivileged pupils in public schools, and in some of them, such as in Brazil, to every student attending a public school. Campaigns to ensure that good nutritional

habits are acquired in infancy, preventing malnutrition, stunting and obesity, are certainly important goals associated with programs.

As for personal freedom, quality education contemplates the competences to be developed in kids, especially "student agency", i.e. learning to make choices, take responsibility for their own schooling and participate actively in their communities. The exercise of personal freedom demands not only laws and regulations that protect rights, but also an informed citizenship that supports them – and this should be taught in schools.

The same approach should be taken toward well-being. Good curricula incorporate self-care and health promotion. But there is also a recommendation to be taken into consideration: Schools should not be places where toxic stress is present even within an ill-founded intention of improving learning. Mental health initiatives are important to both students and teachers.

Along the same lines, safety is a concern, both to ensure that pupils are protected during classes and that they learn safe behavior. This includes not harming others and not endangering their own lives and health. This theme could and should be included in what is taught in schools and may demand the support of qualified professionals, in addition to teachers.

Schools in conflict areas, as mentioned before, such as slums controlled by drug-dealers or militias or in countries stricken by war, should benefit from some kind of affirmative action to ensure that children are not only protected in their regular schools or in refugee camps, but also out of respect for their right to learn.

But although social progress should be sought by the way we organize curricula, teaching, and learning environments, it is as an integrated imperative, an organic pursuit, that in the long run education helps promote social progress. With every child in school learning what is expected at her age and grade, developing her full potential, social progress happens naturally.

That is why quality education should be prioritized among all public policies. Inclusive development starts with education

and children should be the main concern in any policy area, even in times of social unrest and uncertainty about the future.

At the end of the day, children and adolescents will be the next generation to try to build a better world, facing a situation where populism is growing and work as we know it is being threatened on a growing scale. It is better to have prepared them to find a different way of doing this than the way we, the present generation in charge of fixing the world's problems, might eventually have failed at.

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Smart implementation of complex change processes

Cooperation management facilitates the recoupling of progress toward sustainable development

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As a federal enterprise, GIZ has over 50 years of experience in a wide variety of areas, including economic development and employment promotion, energy and the environment, as well as peace and security. GIZ works in demand around the globe – from the German government to European Union institutions, the United Nations, the private sector and governments of other countries.

The main commissioning party is the German Federal Ministry for Economic Cooperation and Development.

A recoupling of social, political, environmental and economic progress requires expertise in managing complex societal transformations, or change projects, on a national level in partner countries, as well as on a regional and global level. The success of recoupling hinges less on identifying new paradigms and designing new policies. It requires primarily smart implementation of good policies.

A focus on smart implementation is crucial for two reasons: First, because the challenge for most countries is less in designing but more in implementing policies. Countries often lack the capacity to translate abstract policies into operational programs and/or to manage the implementation of such programs. This is when sound reform ideas and policies become stuck, derailed, sabotaged or reversed. Second, reform champions often fail to manage controversial stakeholder interests constructively – in a manner that gives the reform process a productive drive and direction. Gaining public support for recoupling ideas entails creating cooperation platforms where different interests can be negotiated fairly and transparently. For this, the spectrum of relevant and legitimate interests must be identified and openly presented, the fair representation of interest groups assured, and mechanisms identified for the efficient and fair bargaining over interests.

GIZ accompanies public, private and non-governmental partners in societies in implementing complex societal change projects. The focus on implementation sets it apart from many other development organizations not directly involved in implementing measures. In a recent learning project, GIZ programs retraced their

implementation process and identified 15 principles that enhance the smart implementation of policies and that support successful program implementation with the objective of contributing to societal change for a more sustainable development. In this article, we present a few principles of smart implementation that are particularly relevant for achieving recoupling.

»Gaining public support for recoupling ideals entails creating cooperation platforms.«

IMPLEMENTATION CAN SUPPORT RECOUPLING OF SOCIAL, POLITICAL, ENVIRONMENTAL AND ECONOMIC PROGRESS

The learning project confirmed some knowledge about how change happens, which can be found in GIZ's management model Capacity WORKS¹. First, complex change occurs neither in a linear fashion nor at an even pace. It can only be steered to a limited extent, which makes it vital to agree on interim goals and requires agile and iterative adaptation in management. Second, promoting cooperation (between several individuals and/or organizations) is an effective way of shaping societal change

processes. GIZ chooses cooperation management as the core principle guiding project implementation. In our work, cooperation has proven to be an important success factor for developing new and publicly accepted solutions to problems. Cooperation brings new constellations of actors together to generate new ideas for solutions.

Solutions to problems are often unknown when GIZ program teams take up work in partner countries; instead, they must be identified and developed. This is done in collaboration with local stakeholders. GIZ's teams can play a helpful role in convening stakeholders who otherwise would or could not meet on their own to deliberate and negotiate ideas and interests. It can be quite resource- and time-intensive to obtain acceptance from all stakeholders to jointly discuss solutions for a common problem. But this is exactly where there is potential to recouple progress and find more comprehensive and sustainable solutions.

International best practices often provide a starting point for local actors and program teams in their search for possible solutions. But each of these ideas must be adapted to fit local conditions. This is often done through experiment. Generic concepts are crafted and modulated until they achieve the required accuracy necessary to fit the local situation. Program teams describe how they often hand-pick actors, strategies, processes and concepts to craft solutions that perfectly match local challenges. For many GIZ program managers, this accurate match defines the quality of service provided to clients and enhances the sustainability of results.

Stakeholder consultations, with particular attention to bringing groups of

people together who had not previously interacted, is the instrument of choice to generate possible solutions to problems and promote partnership.

Dennis Snower (2019) mentions two objectives for supporting the recoupling of social, political and economic progress: First, "to create not just commonality of interest, but commonality of purpose"², and second, to "create new moral narratives relevant to both our local, regional, national and global problems." The process of fostering cooperation and the instruments described here facilitate exactly this: New stakeholder constellations and initiated cooperation can facilitate joint action that drives the process of recoupling forward.

SMART IMPLEMENTATION REQUIRES FLEXIBILITY FOR CHANGES OF COURSE, THE OPTION OF REALIGNING GOALS AND DECISION-MAKING AT LOCAL LEVEL

In the recent learning project, retracing important decisions during the implementation of a GIZ project revealed the obstacles, imponderables and inconsistencies GIZ teams can face. Programs respond to such challenges or changes by adapting their strategies, activities and cooperation partners, thus deviating from jointly agreed plans. These adjustments happen continually throughout the entire implementation process. They are the norm, not an exception, and yet they remain unpredictable. Responding to imponderables can cost a great deal of time and resources. At the same time, adjustments are necessary to support and advance the partners' change process. Obstacles a governance project in Indonesia experienced illustrate this point: The project advised two ministries on fi-

nancing mechanisms for climate change mitigation measures. But before addressing this issue, it was necessary to solve the highly politicized topic of discontinuing fuel subsidies, so that decision-makers could work on the actual topic at hand. Next to reacting to challenges, projects also harness dynamics and use opportunities to promote and accelerate change processes. The governance program in Tunisia responded to the dynamics of a new political situation following the "Arab Spring". The new political decision-makers showed interest in considering a decentralisation reform – an idea the GIZ project had championed with the previous government on several occasions. GIZ was able to rapidly support the new political leadership with advice on such a reform.

»The room to maneuver is important when the aim is to recouple social, political, environmental and economic agendas.«

Implementation requires scope for adapting and changing course and for

realigning goals to ever-changing local circumstances. This room to maneuver is particularly important when the aim is to recouple social, political, environmental and economic agendas, and this must be understood, backed and facilitated by organisations providing process advice, along with their commissioners. Colm Kelly from PwC, for example, states in his vision brief on recoupling economic dimensions that it will "be critical to nurture agility, adaptability and reskilling in the workplace of the future."⁴ The same holds true for any dimension of societal change and recoupling.

JOINT RESPONSIBILITY OF GIZ PROGRAM TEAMS AND PARTNERS FOR PROJECT IMPLEMENTATION SHAPES WHAT IS DONE, HOW IT IS DONE AND WHEN

Sharing responsibility with partners for implementing projects and achieving agreed goals is a key and overarching principle of cooperation in GIZ projects. GIZ thus accepts that local conditions and local capacity shape implementation more than external factors. GIZ's support consists in helping to shape and facilitate the partners' process of desired change. The partners determine the type, direction and speed of change. When designing a program, GIZ compares these ideas with those of the commissioning parties, and it must meet the challenge of negotiating a compromise acceptable to all parties. The extent to which local partners identify with the goals and approaches of the project determines – and in some cases limits – what is done, how it is done and when.

Moreover, ownership fluctuates throughout implementation. Chang-

ing stakeholder constellations (e.g. after elections) or a change in political priorities can alter partners' or commissioners' ownership of agreed goals, approaches or timelines. Smart implementation implies that ownership is constantly reviewed and ensured. It is a precondition for the sustainability of achieved results. A case from Peru illustrates what this means in daily life: The program aimed to reduce and prevent violence against women. The private sector was identified as a societal entity that could assist in changing attitudes and preventing violence against women. The program began by wooing the private sector as a partner in advocating for the cause and taking action to prevent abuse and violence in the workplace and at home. Knowledge of the local context and contacts of the national program staff helped identify options for cooperation. Yet, it took many tries to find the right hook to capture the attention of business and get partners to engage. Research initiated by the program calculated the monetary effects of partner violence for businesses, and this spurred local businesses to engage in awareness-raising and training.

SMART IMPLEMENTATION ACKNOWLEDGES THAT SOCIETAL CHANGE IS POLITICAL IN NATURE

Smart implementation means understanding the political context not as an external or given framework, but to see it as part of the options for action. This has two consequences for program teams. First, the rules of political action not only have to be familiar, project partners and staff must also have mastered them so well that they can act within them. The national program staff members have an indispensable role

to play in this. Second, it entails ongoing monitoring of the political dimensions of the reform process, to assess changes that require the program to respond.

Using a multi-level approach for project design is a way of dealing with implementation risks through political action. A programme design that involves measures at individual, organizational and political levels enables the balancing of bottlenecks, deadlocks or a lack of synchronization during implementation. It allows program teams to maintain contact with the cooperation partners even if the process stalls at one level.

»Successful recoupling requires capacity to implement new policy ideas and to steer change processes.«

SMART IMPLEMENTATION MEANS FOCUSING ON BOTH RESULTS AND PROCESSES

The principle of assuming joint responsibility for implementing projects explains the strong focus on process in GIZ pro-

jects. It ensures that despite all issues that may arise, projects stay attuned to local problems, capacity and solutions. The process itself influences which and how results are achieved. This leads to tension in daily program management because teams must respond to the rationale of the different actors involved (partners, local actors, head office, commissioners). On the one hand, a project seeks to achieve pre-defined objectives and indicators (results orientation) in order to be accountable to commissioners about progress. On the other hand, strategies, processes and activities are continually being adapted to local changes (process orientation) to ensure that support is effective and sustainable. One of the consequences of this parallel focus is that program managers integrate two different rationales into their implementation strategies that are not always compatible and can lead to conflicting objectives. A consequence is that projects must seek a balance between achieving short- to medium-term results within a project cycle, while aiming at long-term societal change that easily takes a decade.

The strong focus on process allows the qualitative aspect of development to be taken into account. Recording progress and change by measuring results is use-

ful, but it says little about the effectiveness of the results. It is only the process – the way in which results are achieved – that gives an idea of their quality and effectiveness. Smart implementation therefore means keeping track of both the results orientation and the process orientation and steering projects using both forms of logic.

In summary, implementation that facilitates a recoupling toward sustainable progress focuses on cooperation. It is characterized by a process- and partner-oriented way of working, in which technical consultancy is combined with policy, process and organizational consultancy. This requires reflective management in collaboration with the partners. Reflective management helps to link previous interactions and experiences to future plans and can thus give transformations direction and drive. Successful recoupling requires capacity to implement new policy ideas and to steer national, regional or global change processes. Such capacity needs to be built for and with all involved stakeholders. Attention to smart implementation and investing in the capacity to implement are aspects that deserve more attention in the debate on how to achieve a recoupling for social, political, environmental and economic progress.

¹ GIZ GmbH Ed. 2015: Cooperation Management for Practitioners. Managing Social Change with Capacity WORKS. Springer Gabler Verlag.

² Dennis J. Snower 2019: Toward global paradigm change: Beyond the crisis of the liberal world order; In: Global Solutions Journal, Vol. IV, page 25.

³ Ebenda, p. 10.

⁴ Colm Kelly 2019: Repurposing our economies – and our businesses. In: Global Solutions Journal, Issue 4, p. 27.

Implementing the SDGs

On the relationship between sustainable development and the global commons

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Friedrich-Ebert-Stiftung (FES) is the oldest political foundation in Germany, with a rich tradition in social democracy that dates back to its founding in 1925. Our work is devoted to the core ideas and values of social democracy – freedom, justice, and solidarity. This is the mandate the foundation has adopted in its programmes for political education, international cooperation as well as scholarship programmes and research. And this connects us to social democrats and free trade unions. Friedrich-Ebert-Stiftung maintains its own representations in over 100 countries of Africa, Asia, the Middle East, Latin America, Europe and North America.

FIELDS OF TRANSFORMATION

The relationship between society and the economy undergoes reassessment at times of crisis. This is shown above all by the major crises or transformations of capitalist development in which the business models and modes of regulation characteristic of a certain period of development began to disintegrate. The future course of the digital transformation and the challenges of coping with environmental change will force such a reassessment – but under conditions of extreme social inequality. Enormous technological leaps, a reorganization of economic power and momentous changes in the relationship between employees and companies will lead to a fundamental transformation of the mode of production.

However, we will not be able to meet these challenges by persisting with the existing economic policy in many countries based on the simple credo “private before state.” The hallmarks of this economy are short-termism and an evaluation of companies geared exclusively to profit, coupled with exaggerated expectations concerning returns on investment. It is nourished by a “rationality myth,” the myth that markets and market decisions are fundamentally rational. What Randy Martin calls the “financialization of daily life” has reached a point where many private and municipal decisions concerning issues such as housing, social protection and the energy supply are now massively influenced by the financial markets. This is a model in which the public interest is adapted to the needs of the markets instead of the economy being geared to the public interest. It gives rise to extreme inequality, which in turn carves social relations of power and op-

portunity in stone, undermines democracy and political stability and exacerbates alienation within society. Moreover, it is a model in which the accumulation of economic power goes hand in hand with political influence – over legislative processes, new trade agreements and social and environmental standards.

»The crisis of democracy is often rooted in the withdrawal of democracy from its role in shaping the economy.«

A GLOBAL WAVE OF PROTESTS CALLING FOR CHANGE (AGAIN)

Today a wide range of protest movements have emerged around the globe. Despite the major differences in how these struggles play out at the local level, among their common themes are rising inequality, extreme poverty, austerity packages, the corruption of the powerful and the ecological emergency. These protests have also clearly taken their inspiration from each other. Clear signs of contestation and conflict can be seen in cities throughout the world where the increasing commodification of public space is threatening basic

living conditions and the well-being of poorer communities in particular.

The widely discussed crisis of democracy is often rooted in this withdrawal of democracy from its role in shaping the economy. This is also shown by the numerous waves of protest across the globe in recent years. In many countries, and especially in large cities, “service delivery protests” are the order of the day in struggles over affordable housing, transport, energy and food and against the commodification of public space. Although the specific triggers of these protests differ widely, the protesters’ demands mostly concern economic justice, “real democracy” and rights. They combine criticism of the erosion of the elementary foundations of everyday social life and of the uncoupling of the economy from the needs of large sectors of the population with criticism of increasingly authoritarian styles of government. The authoritarian practices in question range from corrupt modernization regimes, to austerity policies apparently without alternative, to crisis management in Europe that is largely free from democratic control.

A good seismograph for an existing or impending crisis of capitalism is when it embraces its opponents. Recent examples include the announcement by this year’s World Economic Forum that it will develop a manifesto that rewrites the goals of business and government action, and the public statement by leading American CEOs that the shareholder value approach is no longer working. The old questions about the relationship between capitalism and democracy and who the economy is supposed to serve are back on the agenda.

PUBLIC INFRASTRUCTURE INVESTMENTS

Many of these disputes turn on how to organize the “fundamental economy” – for example, energy systems, social protection, medical care, transport and nursing, but also banking, the internet and food – to ensure that everyone can enjoy a secure and civil life. We all participate in this “invisible economy” every day. And it is precisely this public daily economy that has come under pressure in recent decades as a result of privatizations and the large wealth funds in search of constantly new, high-yield investment opportunities. In many countries, it has been largely dismantled or converted into a profit-oriented, and hence often exclusive, service economy.

In order to reduce inequality, specifically also in times of change, and to “re-embed” important sectors of the economy in society (Polanyi), we need a range of new approaches to the public good on different levels. Today numerous local attempts to protect communities or promote natural or social public goods (often born out of protests) are already operating under the banners of the “commons” or “solidarity-based economies.” These include such diverse approaches as workers’ and producers’ cooperatives, energy cooperatives and credit unions, relief funds and participatory households. Even in the US, some ten million people are employed in companies that are wholly or partly employee-owned – three million more than the number of members of private-sector unions. Granted, we should not paint these developments in an overly romantic light. Many initiatives are born out of sheer necessity due to the failure of the market and the state, so that people are driven

by social pressure to develop their own solidarity-based solutions and build a new social infrastructure. They are attempts at self-organization by groups who otherwise cannot find any protection or use in the market economy structures, such as the countless informal workers, Indigenous populations and other, often marginalized groups. These initiatives remain precarious and are at risk of being co-opted by market interests if they are successful.

»SDGs are seen as an investment opportunity, as the next business frontier for start-ups.«

Nevertheless, they make two points clear: public or cooperative property must be created where markets, competition and private property are failing to fulfill their purpose or to fulfill it adequately; and this requires more joint social-ecological business experiments that supplant market- and profit-oriented structures in those areas in which the benefits for society and the environment outweigh profits. The renaissance of a form of “everyday communism” (Wolfgang Streeck) is occurring above all in

municipalities, communities and regions. It requires spaces for municipal decision-making and financial support, for example to establish business cycles between local and regional companies and local public “anchor institutions” (administrations, hospitals, schools). And it must be supported by democratic participatory institutions in the workplace and the local community.

Democratic and inclusive social infrastructures begin in people’s immediate vicinity and must also be decided there. However, they require the support of (nation-) state and global action. Societies oriented to the common good need a functioning state – and not, as in recent years, a state that operates only as a crisis manager, stabilizer and protector where the markets have failed or as a paternalistic state. Instead the state must play the role of an “enabler” (Elinor Ostrom) of structures that serve the public interest. It must ensure the right mix of private companies, cooperative approaches and public enterprises, protect spaces of freedom from the pressure to enhance profitability and provide “development tools” (technology, capital and knowledge) for public interest projects.

WE MUST BEWARE OF SDG-WASHING IN FINANCE

The largest “public interest” or transformation project being conducted at present is probably the implementation of the Sustainable Development Goals (SDGs). And here again the question is: Should the process be driven by private capital or by the public good? Should it serve profit or the public interest? Considering the various initiatives that were and are being launched around sustainability – with an SDG Summit in 2019 that adopted a Politic-

cal Declaration entitled "Gearing up for a decade of action and delivery for sustainable development" – one might think that mobilization for the SDGs has been successful. But the SDGs are chronically underfunded. The recognition that we are behind on SDG finance led the World Bank in 2017 to adopt its strategy for "Maximizing Finance for Development" and to introduce a cascade approach. In the same year, the German government initiated a "Hub for Sustainable Finance (H4SF)," and in 2018 the UNDP launched its initiative "SDG Impact," which advocates investment strategies with positive social and environmental impacts. There are many more such initiatives, but the bottom line is to get "from billions to trillions" (World Bank) by providing private finance with incentives to contribute to achieving the SDGs. However, leveraging the private sector for sustainable development comes with its own challenges – a number of failed public-private partnerships bear witness to this.

Increasingly, SDGs are seen as an investment opportunity, as the next business frontier for start-ups. Yet, there has been little progress toward achieving the SDGs at a time of surges in global liquidity. But as the T20 Task Force on the 2030 Agenda for Sustainable Development wrote in this Journal (Vol. 1 Issue 2), financing the 2030 Agenda must go hand in hand with financial market regulation. Developing green instruments in finance – the whole idea behind sustainable finance – is all well and good. But as long as it is primarily seen as a business opportunity, addressing systemic risks still gets short shrift. Moreover, the responsibility of finance under the sustainable finance umbrella is too often restricted to the goal

of going fossil free, that is, to tackling the risks posed by climate change. But it must also consider the social implications of investment (social responsibility). There is a broad consensus that the capital required to meet the SDGs is beyond the scope of public finance. Dialogue on SDG finance – or the lack thereof – usually begins with a statement that public finance alone will be insufficient. Public finance seems to be in crisis because of increasingly stretched public balance sheets. So, if we are to have any chance of meeting the SDG goals, we probably first need to get public finance right.

»Economic policy is always at the same time social policy.«

CONCLUSION

The SDGs address problems that affect every country. International trade, global knowledge for development, and the provision of environmental protection, health, financial stability and security have "non-excludable" (i.e. shared) benefits. Such global public goods transcend nation-states. But the provision of global public goods and management of cross-border externalities is currently suffering from a severe collective action problem at the global level. Establishing a long-term sustainable and community-based institution, that is, a "commons," recognized by the (regulatory) state appears to be a

possible solution. The concept of the commons accords sustainability priority over the rationale of profit maximization. It conceives of the economy instead as part of the broader cultural and social context. It must be re-coupled with human rights and societal values such as dignity, solidarity, social equity, environmental protection, democracy and transparency.

We need public funding and provision of public goods by states. This would already represent a shift away from the current understanding that public funding will be used only where private sector finance cannot be leveraged. In addition, we need supranational mechanisms. Global investment funds seem to acknowledge the global commons and in addition have the potential to "transform private goods (like country data) into public goods accessible to all" (Arian Hatefi: The costs of reaching the health-related SDGs, 2017).

In view of the developments in recent years, there is little to suggest that the impending challenges could be met successfully by even more reliance on the market, even more profit orientation and even more self-interest. Economic policy is always at the same time social policy. We cannot abandon the crucial questions of who pays the price of change, how transitions can be managed fairly, and what contributes to the public good to the free play of the markets. Many difficult issues remain open, such as the relationship between public interest-oriented and private sectors and between entrepreneurial autonomy and social control or the mobilization of public funds. There is no master plan that could lead us infallibly to an economy oriented to the common good. We must instead pursue a wide variety of concepts and approaches, and these certainly include public reflection and a public debate.

Gender equality for a sustainable future

G20 governance of the gender equality-climate change link

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The G20 Research Group is a global network of scholars, students and professionals in the academic, research, business, non-governmental and other communities who follow the work of the G20 leaders, finance ministers and central bank governors, and other G20 institutions. It is directed from Trinity College and the Munk School of Global Affairs and Public Policy at the University of Toronto.

INTRODUCTION

Scientists, stakeholders and the public largely recognize the intense connection between climate change and human health. For many G20 members, wildfires, flooding, extreme heat and Arctic thaw are consistently harming the health of their citizens. The integral role of gender and its intersection with climate change and human health are also now widely recognized. Women and girls are the most vulnerable to the associated health harms of climate change in the Global South and also experience gender-differentiated harms in the Global North. This vulnerability is driven by women's confinement to traditional roles as the primary users and managers of natural resources and as primary care givers. It is exacerbated by other intersecting factors such as poverty and indigeneity. Traditional food sources are increasingly at risk, which is leading to the increased onset and prevalence of non-communicable diseases such as diabetes. Extreme weather events increasingly cause displacement, death and stress-related mental illnesses.

Yet, despite their unique lived experiences and vast knowledge, women do not participate fully in climate change

decision-making. Although the G20 has addressed climate change, gender equality and health, it has done so in separate, siloed ways. Addressing the intersection of these issues and prioritizing the participation of women in climate change decision making will lead to more equitable and effective governance. It will also help contribute to meeting the United Nations Sustainable Development Goals (SDGs), to which the G20 remains committed. The G20's 2020 Summit in Riyadh has an opportunity to make progress on the link between gender equality and climate change, as it aligns with Saudi Arabia's two priorities of "Empowering People" and "Safeguarding the Planet."

THE CHALLENGE

Climate change is the defining challenge of our time. Rising temperatures cause deadly extreme weather events at an increasing and alarming rate. Public opinion polls now indicate that the majority of people in all countries surveyed consider climate change a "major threat to their nation," which makes it a truly global concern. The impacts of climate change, however, are not equally distributed. Women and girls are disproportionately vulnerable, largely due to socially constructed norms that make them poorer and confine them to traditional caretaking roles. This is particularly true in the Global South, where women make up a large percentage of the agricultural labor force, and also in the Global North and specifically for Indigenous women who often experience the impacts of climate change first and at a more rapid rate.

Changing patterns of rainfall, increased drought and scarce natural re-

sources increase the workload of female farmers as it becomes harder for them to secure household essentials. Consequently, girls are the first to leave school to help manage the workload, thus decreasing school enrollment rates for girls. Changing animal migration patterns and loss of biodiversity are increasing food insecurity and reliance on unhealthy, store-bought foods. The resulting chronic undernutrition leads to higher rates of obesity and non-communicable diseases such as diabetes. Weather-related crises and disasters also increase rates of gender-based violence, with women and girls most at risk.

»Given their unique knowledge and experience, women must be empowered to lead in addressing climate change at the global level.«

Because women tend to be poorer, have lower levels of access to financial information and services, and have restricted de-

cision-making ability, they are less able to adapt and respond to climate crises. The existing barriers to women's full economic, political and social participation limit their ability to make decisions not only at the individual household level, but also within the international frameworks governing climate change control. Given their unique knowledge and experience, women must be empowered to lead in addressing climate change at the global level.

G20 PERFORMANCE ON GENDER EQUALITY AND CLIMATE CHANGE

Since the G20 first met at the leaders' level in Washington, DC, in 2008, it has increasingly broadened its focus to include issues beyond its original purpose to contain and control financial crises. Over the years, as experts and the broader public began to recognize the adverse economic implications of gender inequality and climate change, the G20 has expanded its attention to these two issues. Despite this increase and the evidence that women across the globe are disproportionately affected by climate change, the G20 has failed to acknowledge the connection in its public deliberations. As such, the following two sections assess the institution's performance on gender equality and climate change separately.

G20 performance on gender equality

G20 leaders first addressed gender equality at the London Summit in 2009, by referring in their communiqué to building a fair and family-friendly labor market for both men and women. This was an indirect recognition that expanded social policies would enable women to participate more fully in the labor force. References

to gender equality were absent altogether from the next summits in Pittsburgh and Toronto. They appeared again in Seoul in 2010 with references to promoting gender equality in the context of development and acknowledging the gender gap in health. During this time, the G20 failed to translate its deliberation on gender equality into real, actionable commitments.

»The G20 has made significant progress in expanding the scope of its attention on gender equality.«

Between 2012 and 2016, attention to gender equality in communiqués gradually increased in both size and scope. The focus was predominantly on the full economic participation of women, with references to skills training, equal pay for equal work, fair and equitable treatment in the workplace and financial inclusion. The 2014 Brisbane Summit produced arguably the most well-known G20 gender equality commitment — to reduce the gap between men and women in the labor force by 25% by 2025. This was considered a major achievement, as it was the first time leaders committed to meet-

ing a specific target with a built-in, multi-year timeline on gender equality.

In 2017, at the Hamburg Summit hosted by German Chancellor Angela Merkel, gender equality had its biggest surge. It received priority placement in the chair's preamble. It carried forward references to gender equality and development, as they related to the SDG agenda. It also mentioned labor market inclusion and equity. It made new references to the importance of education in science, technology, engineering and mathematics (STEM) and of digital skills for girls. It expanded attention to female entrepreneurship. It also paid particular attention to female employment in Africa, supporting financial inclusion for female farmers and rural women, and ending gender-based violence.

The Hamburg Summit was an effective example of gender mainstreaming, something that gender equality scholars and experts have been advocating for many years. Attention plunged, however, at the 2018 Buenos Aires Summit. The summit documents did refer to Canada's adoption of the "Gender Results Framework," which tracks performance on gender equality and identifies what is needed to move forward. Attention rebounded at the 2019 Osaka Summit, where leaders reaffirmed their commitment to increasing female labor force participation, addressing the gender gap in unpaid care work, supporting girls' and women's education in STEM, and empowering women in the agro-food sector.

The G20 has made significant progress in expanding the scope of its attention on gender equality. Most notably, the 2017 Hamburg Summit, which made a major effort towards gender mainstreaming. And

yet Hamburg did not link gender to climate change. Nonetheless, the G20 has made commitments that will contribute to addressing the challenges within that link. These include empowering rural women and girls by increasing their access to finance and increasing the representation of women and girls in STEM.

G20 performance on climate change

The G20 governance of climate change also had a slow start. Much of the attention paid between 2008 and 2010 came in the context of the global financial crisis, including green growth and climate finance. The G20 also noted the importance of supporting the negotiations under the UN Framework Convention on Climate Change. During this period, the G20 made significant commitments to phase out inefficient fossil fuel subsidies over the medium term and to support investments in alternative sources of renewable energy.

From 2010 to 2016, G20 summit attention expanded by including the concepts of green transportation and green cities. Other subjects of note included low-carbon infrastructure, environmentally sustainable food production and vehicle emissions. During this period, the G20 leaders committed to climate finance with a pledge to support the operationalization of the Green Climate Fund.

Attention to climate change spiked at the 2017 Hamburg Summit. It referred to an extensive range of subjects including support for the UN's Paris Agreement, energy efficiency, climate resilience, disaster risk insurance and climate finance. However, the 2018 Buenos Aires Summit failed to make any significant progress on expanding the scope and level of ambition of its

commitments on climate change. In fact, the United States reiterated its withdrawal from the Paris Agreement and the G20 retreated from its commitment to end fossil fuel subsidies. At the 2019 Osaka Summit, very little was done to help control climate change, apart from expressing support for innovative clean energy technology.

Over the last 12 years, the G20 has failed to recognize the unique and differentiated impacts of climate change on women in its summit communiqués. It has also failed to connect climate change to human health in any significant way, even despite historically high levels of heat since 2019, which caused deaths across France, India, Canada and, most recently, Australia.

PROPOSAL

This policy brief recommends that the 2020 G20 Riyadh Summit acknowledge and act on the link between climate change and gender equality. If it is committed to taking real action on the priorities Saudi Arabia outlined when it assumed its presidency, including “Empowering People”

and “Safeguarding the Planet,” the Riyadh Summit could make real progress. It should do so in the first instance by reiterating its commitment to women’s full and equal economic, political and social inclusion, with a specific reference to their equal participation in climate change negotiations and related decision-making. A component of this commitment should be a report on progress made since the G20 began making such commitments in 2012. Second, G20 members should promote public understanding of the issue through the collection and dissemination of gender-disaggregated data on the impacts of climate change. Third, the G20 should recognize the impact of unsustainable population growth by integrating family planning into its climate change commitments, including access to contraception and the protection of sexual and reproductive health rights and education. Fourth, the G20 should reaffirm its commitment to educating girls, particularly in STEM, which can contribute to greater female participation in the renewable energy sector.

¹ Fagan.

² UN Environment Programme.

³ Women Deliver.

⁴ Kulik.

⁵ Kirton and Warren, “G20 Climate Change Governance” and “The Missing Link.”

⁶ Kirton and Warren “G20 Climate Change Governance: Performance, Prospects, Proposals.”

⁷ Women Deliver.

⁸ Hawken.

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Raising compliance with G20 commitments

Two evidence-based instruments

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ABSTRACT

G20 leaders can enhance compliance with their collective G20 summit commitments through the informed use of two instruments over which they have direct control. By hosting same-subject ministerial meetings and using highly binding language in their commitments, G20 leaders may increase the probability of those commitments being realized. These instruments have significant effects on G20 compliance even when gross domestic product (GDP), GDP per capita, change in GDP per capita, and year effects are controlled for.

INTRODUCTION

A major criticism of G20 summit governance is the failure of members to comply with the summit commitments that their leaders collectively make, possibly compromising the effectiveness of the institution.¹ It is thus important to know the degree to which members comply with their commitments and, above all, how such compliance can be improved to better address the issues that the G20 seeks to resolve.² This study attempts to answer this question using the latest data assembled by the G20 Research Group.

It finds that G20 members generally comply with their summit commitments. Furthermore, seven instruments appear to have significant effects on compliance rates. These instruments are: the number of total commitments produced at the summit, the number of official documents released at the summit, the inclusion of a specific date in the commitment, the hosting of a same-subject ministerial meeting, the binding level of the commitment, mention of developing countries in the commitment, and the number of commitments on the same subject produced at the summit.

Of these instruments, the hosting of a same-subject ministerial meeting and the binding level of the commitment have the most plausible causal relationship with compliance. Same-subject ministerial meetings – that is, meetings of G20 ministers on a specific subject relevant to a commitment (e.g. macroeconomic policy) – may enhance information sharing and policy coordination, while using more binding language in commitments could foster a shared sense of urgency for collective and coordinated actions.³ Thus, by hosting same-subject ministerial meetings and using highly binding language, the G20 may be able to increase compliance.

METHODOLOGY

For each G20 summit, the G20 Research Group, led by teams from the University of Toronto and the Russian Academy of National Economy and Public Administration (RANEPA), identify the official summit documents issued by the G20 leaders and extract the passages that contain commitments.⁴ Within these documents, the passages that constitute commitments are

extracted. Commitments are defined as discrete, specific, politically binding, publicly expressed, and collectively agreed to statements of intent; they are promises by summit members to undertake future action to move toward, meet, or adjust to reach a welfare target. They must also be measurable.

»G20 members generally comply with their summit commitments.«

The team then selects a subset of priority commitments that best represent the central priorities and overall achievements of the summit including those from both its built-in and innovative agendas. They code the commitments for the presence of particular compliance catalysts or constraints – elements thought by summit analysts and practitioners to raise or lower compliance.

Compliance for each commitment is then measured on a three-point scale, where each member is awarded +1 for full compliance, 0 for a work in progress, or -1 for non-compliance. Analysts assess each member's compliance with the priority commitments according to a standardized method outlined in the compliance coding manual.⁵

Since 2008, the G20 Research Group and RANEPA have produced compliance

reports on the progress made by each G20 member in meeting the priority commitments made at each summit. They have also published an interim compliance report, timed to assess progress at the half-way point between summits.

The data analyzed in this study came from 5,407 individual G20 member assessments of compliance with 277 commitments made at summits from 2008 to 2018. The effects of eight instrumental variables on these compliance scores were assessed using a polynomial regression model, controlling for possibly confounding effects of GDP and year.

RESULTS

Commitments

The 14 summits that have taken place between November 2008 in Washington, DC, and June 2019 in Osaka, Japan, have produced a total of 2,725 commitments. These commitments cover a broad range of subjects including macroeconomic policy with 476 commitments; financial regulation with 350; trade with 175; energy with 157; labor and employment with 153; financial institutional reform with 144; crime and corruption with 128; food and agriculture with 123; technology with 94; and climate change with 91. Over time, the number of commitments made at each summit has generally risen, with a peak of 529 commitments made at the Hamburg Summit in July 2017.

Compliance

Members' compliance with their leaders' priority commitments has generally risen over time. Overall, average compliance is 71%. The highest compliance was 79% at Buenos Aires in November 2018. By sub-

ject, compliance is highest for commitments on macroeconomic policy at 80%, followed by financial regulation at 77%, energy at 73%, climate change at 69%, development at 67%, and trade at 67%. By member, compliance is highest for the European Union and United Kingdom at 85%, followed by Germany at 84%, Canada at 84%, Australia at 83%, Korea at 75%, Japan and the United States at 74%, China at 71%, Brazil at 69%, Italy at 68%, Mexico and Russia at 65%, South Africa at 62%, Argentina and Indonesia at 60%, Turkey at 57%, and, lastly, Saudi Arabia at 56%.

Variables affecting compliance

The study assessed the effects of eight instruments: the number of total commitments produced at the summit, the number of official documents released at the summit, the inclusion of a specific date in the commitment, the hosting of a same-subject ministerial meeting, the binding level of the commitment, mention of developing countries in the commitment, the number of commitments in the same subject produced at the summit, and the number of words in official documents. When controlling for these variables and the effects of GDP and year, the number of words in official documents released at summits had no significant effect on compliance. The seven remaining significant instruments are discussed below.

Number of total commitments

The relationship between the total number of commitments produced at a given summit and a G20 member's compliance with any specific commitment from that summit is convex (Figure 1). On average and holding all other variables constant, as

Figure 1: Effect of total number of commitments on G20 compliance

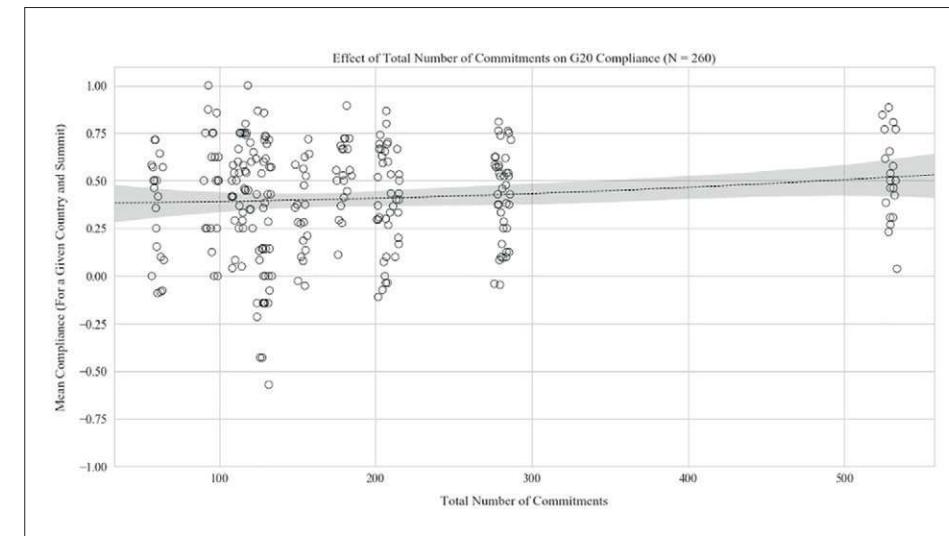
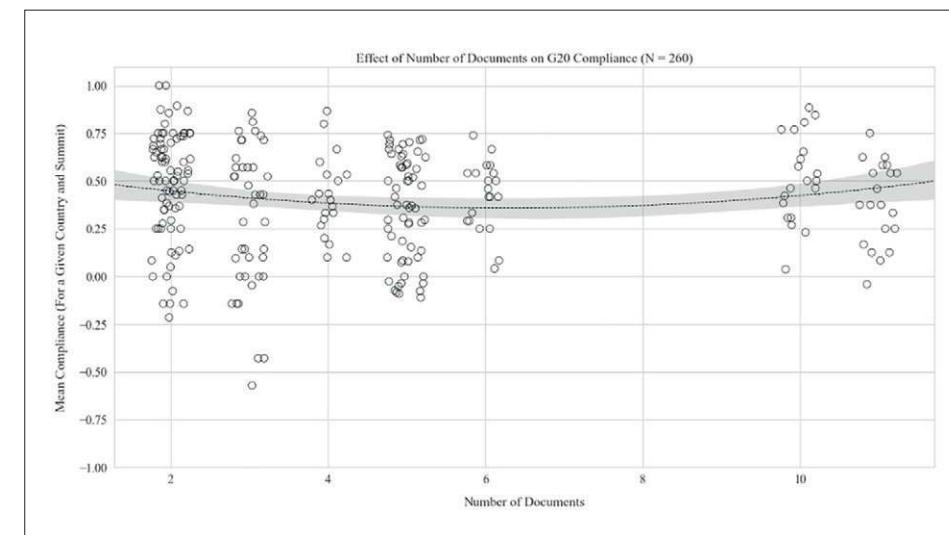


Figure 2: Effect of number of documents on G20 compliance



the number of overall commitments made increases, compliance decreases until it reaches a minimum at 236 commitments, and then increases. This is significant at the 5% level ($p = 0.014$).

For the first 236 commitments, on average and holding all other variables constant, each additional 10 commitments decrease G20 compliance by 0.95%. This slope decreases by 0.002% per additional 10 commitments until compliance is minimized at 236 commitments. After this point, each additional 10 commitments increase G20 compliance by 0.95% with an increasing slope of 0.002% per 10 commitments.

Number of documents

The relationship between the total number of official documents produced at a given summit and a G20 member's compliance for any specific commitment from that summit is convex (Figure 2). On average and holding all other variables constant, as the number of official documents produced increases, compliance decreases until a minimum at six documents, and then increases. This is significant at the 5% level ($p = 0.012$).

For the first six documents produced, on average and holding all other variables constant, each additional document de-

creases G20 compliance by 5.15%. This slope decreases by 0.4% per additional document until compliance is minimized at six documents. After this point, each additional document increases G20 compliance by 5.15% with an increasing slope of 0.4% per document.

Specific date

Compliance was significantly lower for commitments that contained a specific date (Figure 3). On average and holding all other variables constant, commitments with a specific date had 15.12% lower compliance than those without a specific

date. This is significant at the 1% level ($p = 0.000$).

Same-subject ministerial meeting

Compliance was significantly higher for commitments on the same subject as a ministerial meeting (Figure 4). On average and holding all other variables constant, commitments on the same subject as such a ministerial meeting had 4.4% higher compliance than those without. This is significant at the 1% level ($p = 0.000$).

Binding level

Each commitment was categorized by

Figure 3: Effect of specific date on G20 compliance

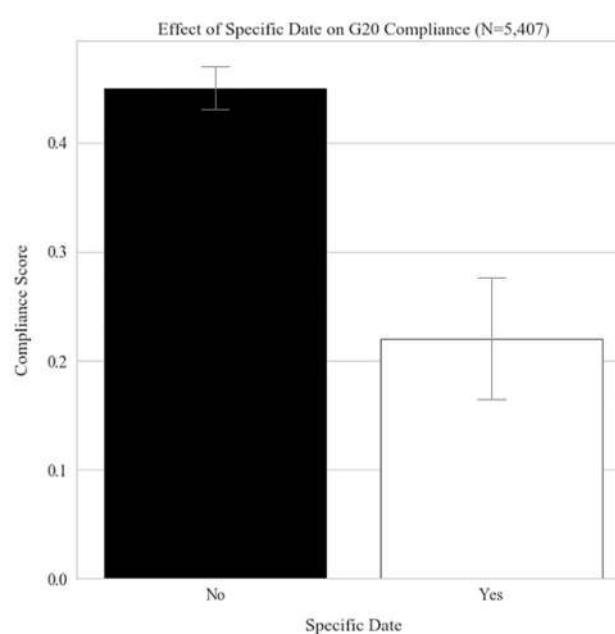


Figure 4: Effect of same-subject ministerial meeting on G20 compliance

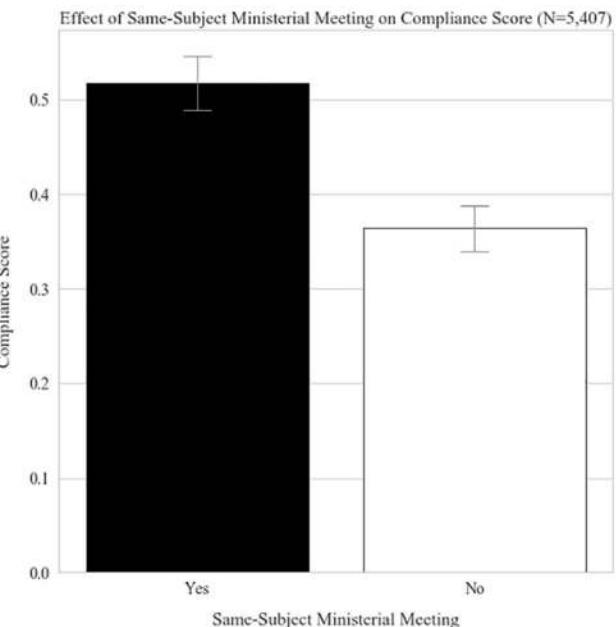
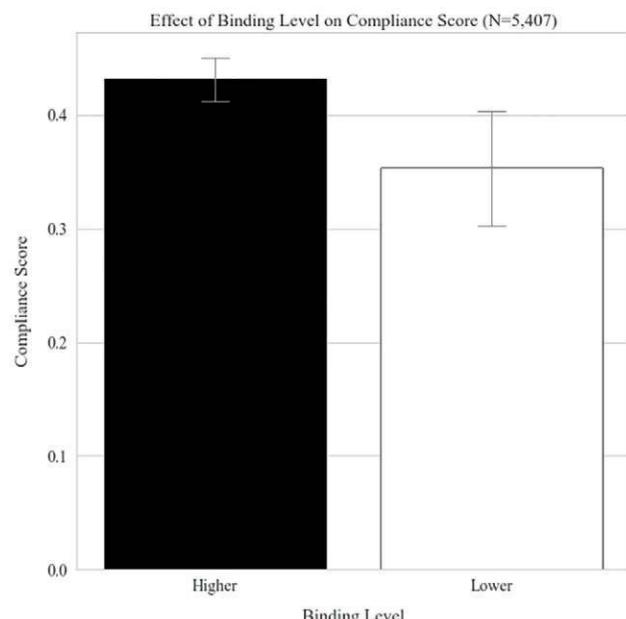
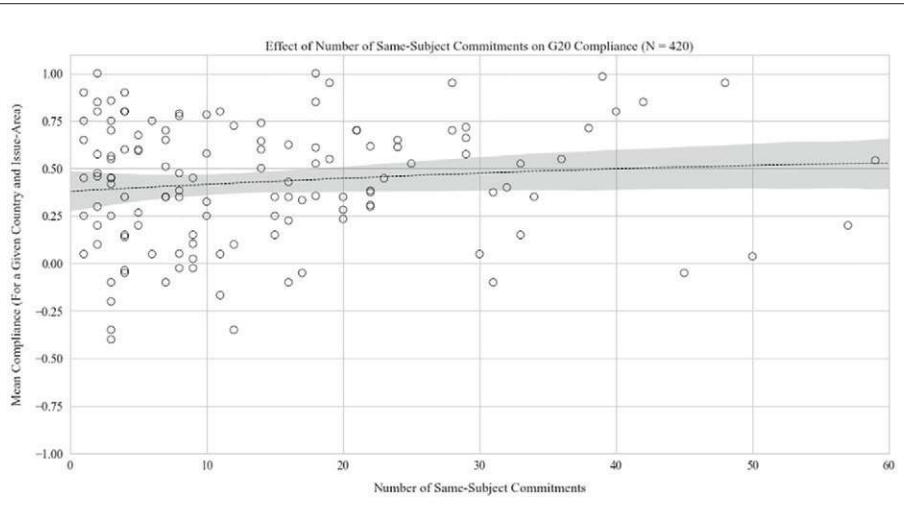


Figure 5: Effect of binding level on G20 compliance**Figure 6: Effect of same-subject commitments on G20 compliance**

whether it used words that indicated a higher or a lower degree of binding, as defined in the Compliance Coding Manual.⁶ For example, the words "promise," "are determined to," and "pledge" indicate a high degree of binding, while "support," "should," and "urge" indicate a low degree of binding.

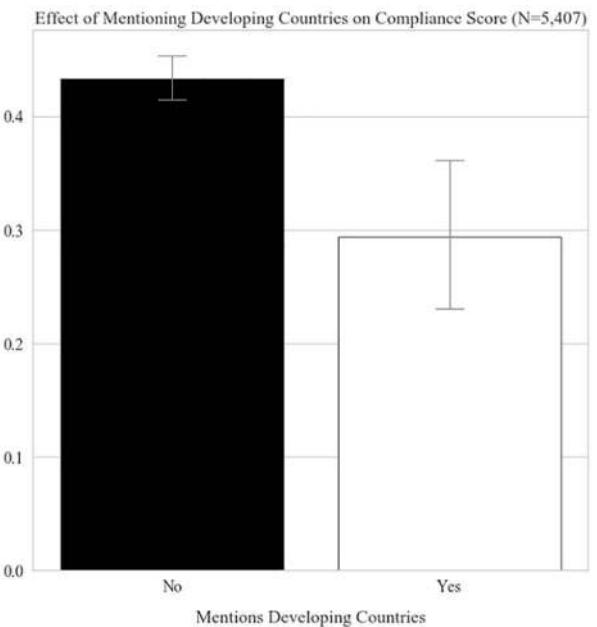
Compliance was significantly higher for commitments that contained words indicating a higher binding level (Figure 5). On average and holding all other variables constant, commitments with a higher binding level had 12.33% higher compliance than those that contained words indicating a lower binding level. This is significant at the 1% level ($p = 0.000$).

Mention of developing countries

Compliance was significantly higher for commitments that did not mention developing countries (Figure 6). On average and holding all other variables constant, commitments that did not mention developing countries had 9.53% higher compliance than those that mentioned developing countries. This is significant at the 1% level ($p = 0.000$).

Number of same-subject commitments

The relationship between the number of same-subject commitments produced at a given summit and G20 member compliance for any specific commitment from that

Figure 7: Effect of mention of developing countries on G20 compliance

summit is positive (Figure 7). On average and holding all other variables constant, as the total number of same-subject commitments increases, compliance increases. This is significant at the 1% level ($p = 0.002$).

On average and holding all other variables constant, each additional 10 same-subject commitments increase G20 compliance by 2.6%.

DISCUSSION

Of the seven instruments found to significantly affect compliance, the hosting of a same-subject ministerial meeting and the binding level of the commitment text have the most plausible potential for a causal relationship with compliance. Specifically, meetings of G20 ministers on a specific subject relevant to a commitment may enhance information sharing and policy coordination, and using more binding language in commitments could foster a shared sense of urgency for collective and coordinated actions.⁷ Caution should be taken, however, in concluding that the effects found in this study are definitely causal.

The remaining instruments have a substantially more dubious relationship with compliance, making it difficult to determine any causal connection. For example, the number of commitments made at a summit might be the result of uniquely synergistic collaboration among the leaders that produces both high compliance and a high number of commitments.

Further, some instruments might have an effect on compliance but might not be desirable for leaders to change. For instance, including a specific date is associated with lower compliance as it makes compliance more difficult, yet G20 leaders

may nonetheless wish to include specific deadlines in their commitments.

The low percentage of variance ex-

»It is recommended that G20 leaders host same-subject ministerial meetings.«

plained by the variables included in this study (approximately 7%) should also be noted. This value may indicate that compliance is determined mostly by factors outside the control of the G20 and actions of leaders are, to a large degree, independent of commitments made at G20 summits.

Finally, there are potential issues with the categorical coding mechanism used by the G20 Research Group. The categorical codes used may not correspond to the continuous values they were given in this study. For example, a score of 0 indicates partial compliance, which was treated as 50% compliance in the study, but the true degree of compliance could be much higher. This could make the effect of the variables examined on compliance in terms of percentages very different, and possibly higher.

RECOMMENDATIONS

Despite potential confounds and the seemingly low explanatory power of the model, there nonetheless remains evidence to suggest that the two instruments with the highest potential for a causal mechanism for compliance also are significantly correlated with compliance. These are, as previously mentioned, the hosting of a same-subject ministerial summit and the binding level of the commitment text. Although the benefits of these two instruments may seem obvious, the analysis in this study now offers empirical evidence to confirm

that these two strategies have an effect on G20 compliance, even when economic factors and the effects of other instruments are controlled for. Specifically, on average, compliance is 4.4% higher when a same-subject ministerial meeting is held and 12.33% higher when a higher level of binding language is used.

It is thus recommended that G20 leaders host same-subject ministerial meetings and use strong language for high-priority commitments to enhance compliance and implementation of their collective G20 summit commitments.

¹ Kokotsis, 194.

² Kirton and Larionova, 3-4.

³ Slaughter, 37; Larionova, Rakhmangulov, and Sheleпов, 211.

⁴ Kirton and Larionova, 264.

⁵ Global Governance Program, 23.

⁶ Global Governance Program, 5-6.

⁷ Slaughter, 37; Larionova, Rakhmangulov, and Sheleпов, 211.

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Making gender equality a reality

We need concrete policy action, substantial funding and multilateral cooperation

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The Kiel Institute for the World Economy is an international center for research in global economic affairs, economic policy consulting, and economic education. The Institute engages especially in creating solutions to urgent problems in global economic affairs. It advises decision makers in policy, business, and society and informs the broader public about important developments in international economic policy.

How many years will it take to achieve gender equality? According to the World Economic Forum's latest Global Gender Gap Report, at the current rate of change, it would take 99.5 years to close the overall global gender gap. To achieve gender equality in economic participation and opportunities, it would require as much as 257 years.¹ These projections are sobering for all girls and women who suffer injustices because of their gender on a daily basis. They are also bad news for the economy, as equal access between men and women to opportunities and life changes is not only a moral and social imperative but would also bring considerable economic benefits. A 2015 study by the McKinsey Global Institute found that if women played an "identical role in labor markets to that of men" in terms of labor-force participation, hours worked, and the sector mix of employment, up to 26 percent could be added to global annual GDP in 2025.² For countries to remain competitive, they need to make gender equality an integral part of their economic strategies. This is why equality needs to become both a top priority and a core issue on the agendas of the G7 and the G20, the main economic

fora of the world's most powerful economies. This article begins by summarizing the 2019 French Presidency's approach to advancing gender equality and the results it achieved. It argues that it is time for the G7 to increase policy action in this field and then offers recommendations for how the G7 can accelerate progress towards women's empowerment and gender equality within the G7 and beyond.

»Equality needs to become both a top priority and a core issue on the agendas of the G7 and the G20.«

THE FRENCH G7 PRESIDENCY 2019

Setting the ambitious goal to make gender equality a global cause, the 2019 French G7 Presidency rightly placed gender issues high on its agenda. To ensure that gender equality would feature prominently in the G7 discussions, three months prior to the summit, the French held a ministerial meeting dedicated to this theme. This followed the example of the Italians, who were the first to organize a G7 ministerial meeting on gender equality in 2017. Furthermore, French President Emmanuel Macron extended and renewed the Gender Equality Advisory Council (GEAC),

which was established during Canada's G7 Presidency the year before. The GEAC issued the "Biarritz Partnership",³ a report which identifies 79 laws worldwide that advance the rights of girls and women and calls on the G7 members to improve their legislative frameworks to promote gender equality. Giving special weight to the report, Macron invited prominent GEAC representatives to present their recommendations to the leaders of the world's major advanced economies at the Biarritz Summit. Moreover, to ensure gender equality was not only treated as an issue in its own right but prioritized throughout the entire G7 process, the French Presidency included gender-related topics in the agenda of all ministerial meetings.

Overall, it seems that the considerable efforts made by the French G7 Presidency led by President Macron paid off, as the Biarritz Summit yielded meaningful results for gender equality. The exclusion of gender equality in the principal G7 Leaders' Declaration adopted in Biarritz should not be given too much weight, since only a brief list of issues was produced instead of a comprehensive final communiqué. In fact, gender-related issues found their way into a number of G7 documents issued at the summit in Biarritz. What is more, separate declarations and statements on the subject, such as the Declaration on Gender Equality and Women's Empowerment as well as a statement on the promotion of women's entrepreneurship in Africa, were issued. By joining the Biarritz Partnership on Gender Equality, G7 members committed to individual legislative measures that advance gender equality and to support non-G7 countries to improve their legislative frameworks as well. The scope

and ambition of the political and financial contributions in the fight against gender inequality, however, vary widely among G7 countries. While some countries, notably France, have defined significant concrete financial commitments, the US, for instance, has not announced any concrete funding pledge.⁴ Unfortunately, several measures listed in the Annex for the Biarritz Partnership on Gender Equality lack ambition. Attempts to include reproductive rights in the G7 documents, that is the basic right to freely decide whether and when to have children, failed once again; according to close observers of the negotiations, this was mainly due to US resistance.

FROM RHETORIC TO ACTION

What then are the prospects for advancing gender equality worldwide if even a fully committed presidency of a small group of comparatively like-minded countries is unable to stimulate all its members to take strong and determined action to strengthen women's rights? As a club of liberal democracies and major economic powers, G7 countries have both the responsibility and the capacity to advance equal rights. The uncomfortable reality is, however, that breakthrough progress by the G7 in furthering gender equality is unlikely as long as equal rights continue to be viewed as a "niche issue" in many public administrations, most notably, but not exclusively, in the US. Transforming the traditionally "soft" issue into a generally acknowledged "hard" economic one is possible but requires time and political leadership, which are both scarce resources. Despite all these difficulties, however, achieving substantial progress on gender issues comes within reach if the G7 countries, or

at least a critical number of them, speed up their individual efforts and translate the commitments they have made into action. What it really takes to empower women and make gender equality a reality are not more and more rhetorical commitments and ambitious strategic frameworks but the concrete implementation and close monitoring of existing schemes as well as the provision of robust long-term funding. In the last few years, the G7 has delivered workable strategies, programs and initiatives to fight gender inequality, such as the Biarritz Partnership and the Affirmative Finance Action for Women in Africa (AFAWA) initiative. Furthermore, there are numerous international regulations, roadmaps and projects, such as the 2030 Agenda and the International Fund for Survivors of Conflict-Related Sexual Violence, which require the political and financial support of the G7 to produce tangible results. Where overall G7 action is not manageable, coordinated and individual actions by those willing to lead are the right way to go.

»We cannot wait another century to close the gender gap.«

CONCRETE POLICY ACTION, SUBSTANTIAL FUNDING AND ENHANCED MULTILATERAL COOPERATION

So where to start? First, all G7 countries should follow the recommendation by the

GEAC and the Women 7 and ratify the relevant international gender equality standards such as the Istanbul Convention and the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) and push other states to follow suit.⁵ Second, all G7 states should rigorously review their legislative frameworks with a view to gender equality, abolish discriminatory laws and enact and implement new ones,⁶ drawing on the legislative package put forward in the Biarritz Partnership and going beyond the not-too-ambitious individual commitments made in Biarritz. In order to continuously track and assess the G7's efforts to advance gender equality, the G7 should implement a comprehensive accountability framework as proposed by the GEAC. In addition to this, the G7 should actively assist developing countries in initiating similar legislative processes. Third, G7 members should provide financial support to women's rights organizations and initiatives promoting women's economic empowerment on a regular basis. This requires increasing financial resources in both domestic budgets and development assistance.⁷ By setting the goal to devote 50 percent of its development aid to projects to reduce gender inequalities,⁸ France has taken a first step in that direction. Fourth, the G7 need to better integrate their initiatives into the work of the United Nations (UN), in particular the 2030 Agenda, by aligning their policies with the targets defined under the Sustainable Development Goal 5 and continuously checking progress against these targets.⁹ Finally, the G7 should intensify and improve collaboration and coordination with

the G20 to increase both the outreach and legitimacy of their efforts. The G20 is the natural platform to create international momentum, as the G20 countries have made many commitments and started several initiatives related to gender equality, which are complementary to G7 actions. Above all, the G7 states need to comply with the commitments they have made at the G20 level, such as reducing the gender labor force participation gap by 25 percent by 2025 compared to 2012, and should encourage and help other G20 states to follow suit. In three of the G7 countries, namely Italy, the US and Canada, the decline in gender gap is not in line with the expected progress towards meeting the "25 by 25 target".¹⁰ Furthermore, the G7 should leverage their influence in the international organizations surrounding the G20, such as the International Monetary Fund, World Bank and the OECD. These institutions are important partners for building networks and knowledge on the one hand, and for implementing and monitoring specific policy action on the other.

To make a proportionate and overdue contribution to making gender equality a reality at the global level, G7 countries need to step up their engagement by backing up their commitments with both funding and concrete policy action and by using their influence in the G20 and international organizations. As we cannot wait another century to close the gender gap, it is time to turn rhetoric into action. While costs may appear high in the short term, investing in gender equality will have high returns for both women and men around the globe.

¹ World Economic Forum (2019): "Global Gender Gap Report 2020", available online at www3.weforum.org/docs/WEF_GGGR_2020.pdf, p. 6.

² McKinsey Global Institute (2015): "The power of parity: How advancing women's equality can add \$12 trillion to global growth", available online at <https://www.mckinsey.com/featured-insights/employment-and-growth/how-advancing-womens-equality-can-add-12-trillion-to-global-growth>

³ See Gender Equality Advisory Council (2019): "Biarritz Partnership for Gender Equality", available online at <https://www.elysee.fr/admin/upload/default/0001/05/cfb1e2ba2b9aa09c1660f1b6df2cabbc815ecc2.pdf>

⁴ For a comprehensive list of G7 commitments under France's leadership in 2019, see Ruthrauff, J., Thompson, L. and Cahill, M. (2019): "France Called for a Feminist G7, but Did the G7 Deliver? A Report Card on the 2019 G7 Commitments to Gender Equality", Washington, DC: International Center for Research on Women and Center for Democratic Education, available online at <https://www.icrw.org/report-card-on-2019-g7-commitments-to-gender-equality/>

⁵ See Gender Equality Advisory Council, p. 2, and W7 (2019): "G7: Women 7 Alternative Gender Declaration", August 23, 2019, available online at <http://www.feministscount.org/assets/presse/18%20-%20G7%20-%20Women%20%20Alternative%20Gender%20Declaration%20-%20August%202019.pdf>

⁶ This recommendation has been prominently put forward by the Gender Equality Advisory Council.

⁷ For a similar recommendation, see Women 7 (2019): "Towards a truly feminist and transformative G7. General recommendations of the W7", May 9, 2019, available online at <https://www.feministscount.org/assets/presse/7%20-%20EN%20-%20Towards%20a%20truly%20feminist%20and%20transformative%20G7%20-%20General%20recommendations%20of%20the%20W7%20-%20May%209-2019.pdf>

⁸ French Ministry for Europe and Foreign Affairs (2018): "France's international strategy for gender equality (2018-2022)", available online at https://www.diplomatie.gouv.fr/IMG/pdf/meae_strategie_-__en_cle076525.pdf, p. 7.

⁹ A similar point has been made by Kulik, J. (2019): "Advancing Gender Equality at the G7 Biarritz Summit: Good Steps Taken, Big Opportunities Missed", November 12, 2019, available online at <http://www.g7g20.utoronto.ca/comment/191112-kulik.html>

¹⁰ See OECD and ILO (2019): "Women at Work in G20 countries: Progress and policy action", available online at <https://www.oecd.org/g20/summits/osaka/G20-Women-at-Work.pdf>, p. 6.

Demographic change: Implications for Macroeconomic Policy

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**Structural reforms
to make the most of
demographic change**

Luiz de Mello
Yvan Guillemette
OECD

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**How does population
aging affect the
effectiveness of
monetary and fiscal
policy?**

Naoyuki Yoshino
Hiroaki Miyamoto
Asian Development
Bank Institute

Structural reforms to make the most of demographic change

The author:



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The Organisation for Economic Co-operation and Development (OECD) is an international organisation that works to build better policies for better lives. Our goal is to shape policies that foster prosperity, equality, opportunity and well-being for all. We draw on almost 60 years of experience and insights to better prepare the world of tomorrow.

Together with governments, policy makers and citizens, we work on establishing international norms and finding evidence-based solutions to a range of social, economic and environmental challenges. From improving economic performance and creating jobs to fostering strong education and fighting international tax evasion, we provide a unique forum and knowledge hub for data and analysis, exchange of experiences, best-practice sharing, and advice on public policies and global standard-setting.

INTRODUCTION

The world is going through rapid demographic change. In most G20 countries, employment-to-population ratios are set to decline through to 2060, putting downward pressure on progress in living standards. In this context, labor market reforms can potentially boost employment rates and thus help offset part of, or all of, the drag on living standards due to adverse demographics. At the same time, where populations are still young, favorable demographics can be a harbinger of greater prosperity in the future, especially if supported by policies that encourage the youth to stay in education and employment, and acquire the skills they need to thrive in rapidly changing economies and societies. The diversity of experiences among G20 countries calls for different policy actions in different countries.

DEMOGRAPHIC CHANGE IS PROJECTED TO WEIGH ON LIVING STANDARDS IN MOST COUNTRIES

The OECD Economics Department regularly generates long-run GDP projections for individual G20 economies using a model based on a conventional production function.¹ Accordingly, projected changes in living standards (real GDP per capita)

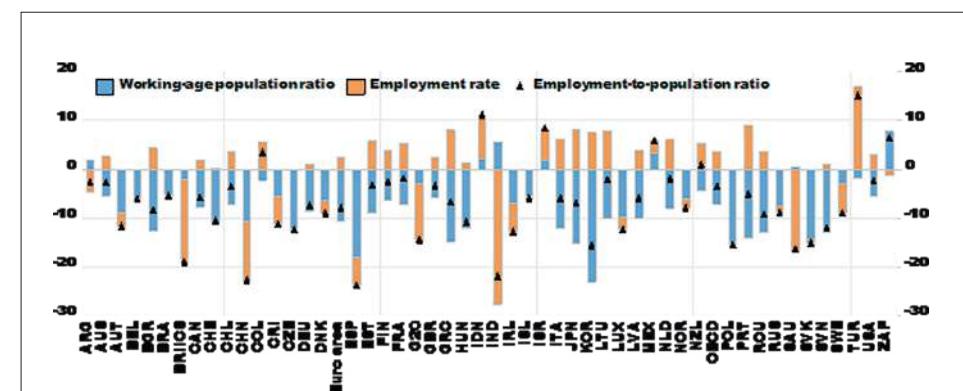
can be decomposed into two components: the employment-to-population ratio and labor productivity. The first of these components can be further decomposed into a working-age population ratio (ratio of population aged 15 to 74 to total population) and an aggregate employment rate (ratio of employment to the working-age population). A declining employment-to-population ratio does not mean that living standards will fall outright, because it can be compensated by labor productivity growth. However, for a given rate of labor productivity growth, a falling employment-to-population ratio hampers improvements in living standards.

The working age population ratio is a summary indicator of the age structure of the population. It tends to fall with population aging, indicating that each person of working-age must "support" an increasing number of young and old. According to the

latest population projections from the European Commission (for European countries) and the United Nations Population Division (for other countries), this support ratio is projected to decline in most countries over the coming decades. This effect alone is projected to lower real GDP per capita by about 3% across G20 countries through to 2060, all else equal (Figure 1). Support ratios are projected to increase over this period only in Argentina, India, Indonesia, Israel, Mexico and South Africa, due to higher fertility rates and lower life expectancies. At the other extreme, the largest declines in support ratios are projected in Korea, Spain and Japan, subtracting between 15% and 25% to real GDP per capita through 2060.

Aggregate employment rate projections are obtained from a cohort approach, incorporating generational trends and societal changes, such as rising female

Figure 1: Contributions to projected change in real GDP per capita between 2020 and 2060



Source: OECD long-term baseline scenario as of December 2019.

employment rates and rising educational attainment. The approach also integrates already-legislated future changes in statutory retirement ages. Projected changes in employment rates arise from differences in the employment propensities of different cohorts combined with shifts in the demographic structure of the population. The larger the differences between entry/exit rates into/from employment of different age cohorts, and the larger the size differences between cohorts, the more the aggregate employment rate changes over time in the baseline scenario as various cohorts progress through their active life cycles.

Population aging tends to depress the aggregate employment rate, because employment rates generally decline past the prime employment ages of 25 to 54. However, population aging is not the only influence on employment rates. In many countries, especially the more advanced ones, the negative aging effect is offset, at least in part, by other cohort dynamics, mainly rising female employment rates. Indeed, in the OECD area the projected change in the employment rate adds 4% to GDP per capita by 2060 [Figure 1]. In the G20 area, however, a falling aggregate employment rate subtracts 11.5% from living standards by 2060, reflecting declining employment rates in India and China. Although cohort models for these countries are less reliable given data gaps, the limited information available suggests that female employment rates, in particular, have been declining.

Putting together the working age population ratio and employment rate effects, projected changes to employment-to-population ratios are set to depress living

standards by 14.5% among G20 countries by 2060. This calls for policy action to lift employment rates and raise labor productivity, depending on initial country conditions and gaps in policy settings relative to good performers.

»Where populations are young, favorable demographics can be a harbinger of greater prosperity.«

LABOR MARKET REFORMS CAN RAISE EMPLOYMENT RATES

Labor market reform appears particularly desirable in the context of demographic change to encourage higher employment and longer working lives. OECD work on the impact of labor market reforms on the economy is extensive, but the specific policy effects used in the long-term model are from the recent work of Gal and Theising [2015[2]] and Égert and Gal [2017[3]].

A simulation exercise illustrates the potential effects of selected labor market reforms. Consider, for example, a case where OECD countries implement a per-

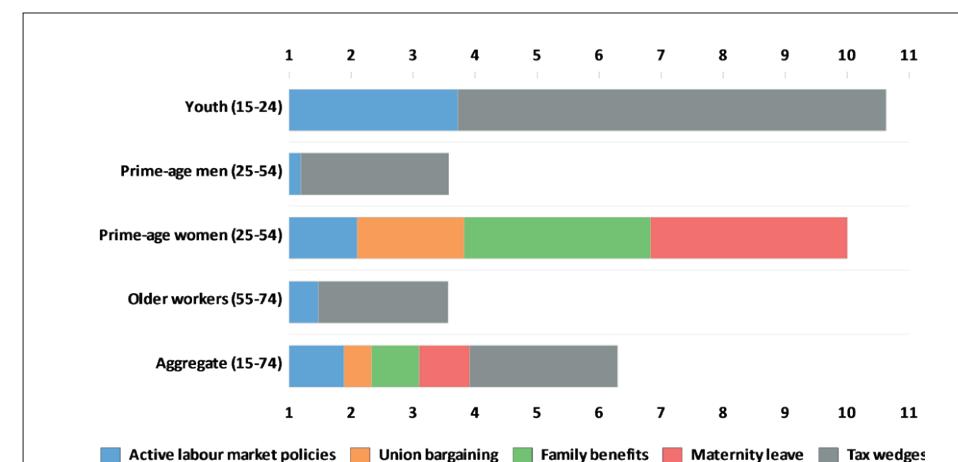
manent policy reform package between 2020 and 2030 that, for a number of policy indicators, would close half of the current gaps relative to simple (unweighted) averages of these indicators for the top five performing countries. In this exercise, the magnitudes of the policy changes depend, for each country and indicator, on the gap relative to best practices, defined as the policy settings in place in the best performing countries according to the latest available data. The exercise assumes that only half of the gaps close over the reform period in recognition of the difficulty of implementing these structural reforms.

More specifically, the reform package considered in the simulation exercise is as follows. The median country raises spending on active labor market policies

by 24 percentage points of GDP per capita per unemployed worker, lowers union bargaining excess coverage (defined as the difference between the coverage of collective contracts and union density) by 9 percentage points of the workforce, raises public spending on family benefits in kind by 0.6 percentage points of GDP, lengthens maternity leave by 12 weeks, and lowers tax wedges for single earners and couples by about 10 percentage points of labor costs.

The actual parameters of the reform package differ for each country depending on distance to best practices. Implementation raises employment rates for all age groups, but especially for the youth and prime-age women. For the OECD countries, by 2040 the aggregate employment

Figure 2: Impact of labor market reforms on OECD employment rates



Source: Guillemette, Y. and D. Turner (2018), The Long View: Scenarios for the World Economy to 2060, OECD Economic Policy Papers, No. 22, OECD Publishing, Paris, <https://doi.org/10.1787/b4f4e03e-en>.

rate is about 6.5 percentage points higher than in the baseline scenario, an outcome that is driven in large part by the boost to female employment coming from improvements to family benefits and maternity leave (Figure 2). In terms of policies, tax wedge reductions have the largest impact on the aggregate employment rate, because they affect employment rates for the youth, prime-age men and older workers. Lowering tax wedges and increasing family benefits in kind would promote not only employment among the lower-income segments of the population but also the integration of women in the labor market (OECD, 2017[4]).

In turn, rising employment rates would boost trend real GDP per capita growth by two-thirds percentage points in the OECD area at the peak toward the end of the reform implementation period (Figure 3, Panel A). The rapidity with which em-

ployment reacts actually drags down the amount of capital available per worker, hence the slight negative growth contribution of capital intensity. This would spur investment to rise and eventually capital intensity would also contribute positively to growth. OECD living standards would be some 4% higher than in the baseline scenario when the reforms are fully implemented in 2030 and 10% higher by 2060 (Figure 3, Panel B).

The cumulative improvement in living standards relative to the baseline scenario is as much as 12% to 15% in countries that are currently furthest away from best practices on the set of labor market policies considered here, including Italy, Belgium, Spain, France, Greece and Slovenia (Figure 4). Except for Spain, these policy-induced gains would be enough to fully compensate the negative contribution on GDP per capita growth stemming from

projected declines in employment-to-population ratios.

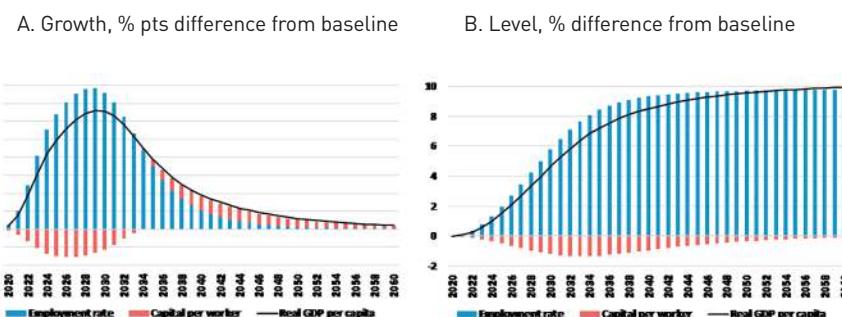
INFLECTING THE TREND DECLINE IN LABOR PRODUCTIVITY GROWTH

When it comes to emerging-market economies and developing countries, distances to best practices are especially large in the areas of governance, education and trade openness. Reforms in these areas could greatly accelerate the catch-up in living standards by boosting labor productivity growth. The goal of improving governance should be interpreted as targeting a wide range of objectives, from reducing corruption, improving law enforcement and the judicial process, increasing the effectiveness of public services and the accountability of those in power, to enhancing access and voice of the citizenry in public affairs. Improving education means making gains in both quantity (educational at-

tainment) and the quality of instruction, whereas promoting trade openness means lowering both tariff and non-tariff barriers to the flow of goods and services across borders.

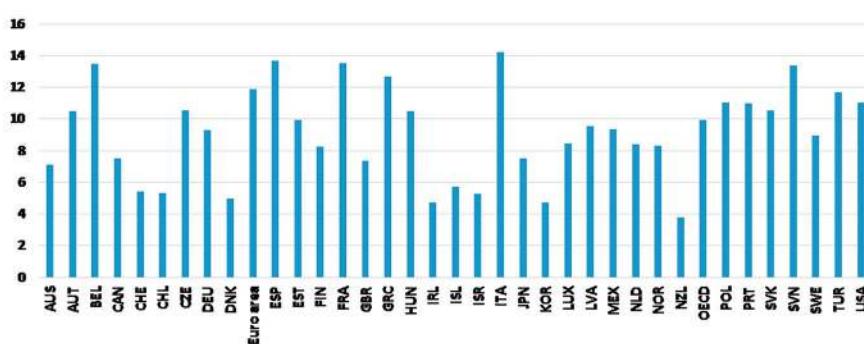
To illustrate the effects of these reforms, a reform simulation exercise akin to the one presented above can be considered for Brazil, Russia, India, Indonesia, China and South Africa, the so-called BRIICS countries. The simulation exercise shows that improving governance, educational attainment and trade openness to median OECD levels over the next 40 years could boost living standards by 30% to 50% relative to a baseline scenario of no policy change (Guillemette, 2018[1]). Governance appears a particularly potent source of potential economic gains in Russia, while Brazil, China and India also have much to gain by boosting educational attainment. The influence of greater trade

Figure 3: Impact of labor market reforms on OECD trend real GDP per capita



Source: Guillemette, Y. and D. Turner (2018), The Long View: Scenarios for the World Economy to 2060, OECD Economic Policy Papers, No. 22, OECD Publishing, Paris, <https://doi.org/10.1787/b4f4e03e-en>.

Figure 4: Impact of labor market reforms on real GDP per capita



Source: Guillemette, Y. and D. Turner (2018), The Long View: Scenarios for the World Economy to 2060, OECD Economic Policy Papers, No. 22, OECD Publishing, Paris, <https://doi.org/10.1787/b4f4e03e-en>.

openness is comparatively small, but largest in Brazil given relatively high import tariffs.

For all countries, raising labor productivity growth by moving to best practices in various policy areas appears especially desirable in the current context where productivity growth has been trending down and some research suggests that there could be a negative link between demographics and productivity growth [Feyrer, 2007[5]; Jones, 2020[6]]. If productivity growth depends on the generation of new ideas and inventions, and if the rate at which this occurs is proportional to the size of the population, then it is worrisome for productivity that global population growth is slowing, and that the populati-

on is projected to fall by 2060 in six of the G20 countries, including Japan and China. Even where the population will continue to grow, workers are getting older. Given findings that suggest a negative association between productivity growth and the average age of the workforce, investing in youth through more and better education and boosting productivity with institutional and policy reforms seems all the more appealing.

Luiz de Mello and Yvan Guillemette, OECD Economics Department. The analysis and opinions presented in this article are the authors' own and do not necessarily reflect those of the OECD and the Organisation's member and partner countries.

¹ See Box 1 in Guillemette and Turner (2018[7]) for an overview of the model and for references to more detailed explanations.

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How does population aging affect the effectiveness of monetary and fiscal policy?

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The Asian Development Bank Institute is an Asian think tank focused on identifying effective development strategies for Asia and the Pacific, and on providing support to ADB member countries in managing development challenges.

INTRODUCTION

How does population aging affect the effects of macroeconomics policies? Due to declining fertility and rising life expectancy, many countries are facing rapid aging of their populations. According to the population projection by the United Nations, the old-age dependency ratio (the proportion of people aged 65 or older in a working-age population) will double by 2050 (Figure 1). These demographic changes cause qualitative and quantitative changes in the demand and supply of the entire economy. In response to population aging, research analyzing the impact of population aging on the macroeconomy is growing. However, little attention has been paid to the impact of population aging on the effectiveness of macroeconomics policies.

The purpose of this article is to study how population aging would affect the macroeconomic effects of monetary and fiscal policies. It is based on a longer paper (Yoshino and Miyamoto, 2019) that exam-

ines the effects of population aging on economic performance and the effectiveness of monetary policy by using a dynamic stochastic general equilibrium (DSGE) model with heterogeneous households (comprising young and old households).

The novelty of the study is the development of a tractable DSGE model that enables us to examine the effects of demographic changes on the economy without assuming the life-cycle of the agents. Our model shows that a decline in the working population reduces aggregate output, consumption and investment by reducing total labor supply in the long run. We also find that the effectiveness of monetary policy diminishes when the working population declines.

The article also empirically examines the effect of population aging on the output effects of fiscal policy shocks by us-

ing a panel data of Organisation for Economic Co-operation and Development (OECD) countries. We identify the fiscal policy shocks as forecast errors of government spending, estimate their output effects, and examine how population aging modifies the output effects of fiscal policy shocks.

We find that demographic structure affects the output impact of government spending shocks. While in non-aging economies, the government spending shock increases output significantly in both the short- and medium-term, in aging economies, output responses are not statistically significant.

These results have important policy implications. Our analyses show that neither monetary policy nor fiscal policy would be effective in aging economies, and structural reform measures would

have a more important role. Our model suggests that postponing retirement age by paying a productivity wage rate and asking people to work as long as possible are helpful factors. This policy recommendation would increase the labor force and reduce the burden of social security expenses. Budget deficits would decrease, and fiscal sustainability could be achieved even if the economy is faced with an aging population.

Most related to this study is Yoshino and Miyamoto (2017), which shows that population aging weakens the effectiveness of macroeconomic policies by using a new Keynesian DSGE model. Imam (2013) and Wong (2019) also point out that population aging would reduce the effects of monetary policy on inflation and output. Rachedi and Basso (2019) show that fiscal multipliers depend on the age structure of the population at the state level in the US.

QUANTITATIVE ANALYSIS

The economic model in Yoshino and Miyamoto (2019) allows the examination of how a demographic change influences the economy. We first examine the long-term effects of a change in the proportion of the working population on the aggregate economy. We then investigate how a change of demographic structure alters the effectiveness of monetary and fiscal policies in the short run.

The long-term effect of population aging

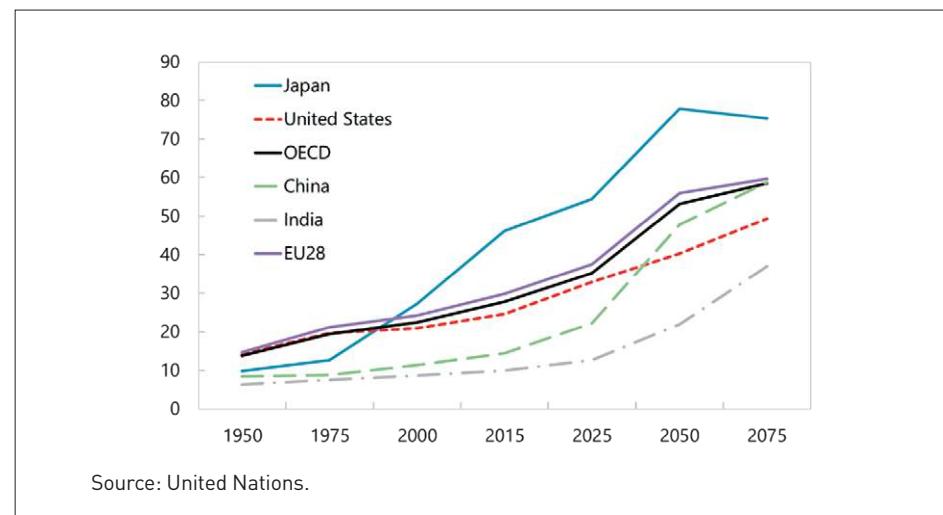
An increase in the proportion of workers caused by making retired people return to the labor force increases output, aggregate consumption, aggregate investment, and total labor input. These responses can be understood by examining the response

of taxes paid by workers. In the economy, the pension benefits are transfers from tax payments by workers to retirees. Since the amount of pension benefits per retiree is fixed, an increase in the proportion of the working population reduces each worker's tax burden. As a retired person receives a fixed amount of pension benefits and consumes all of it in each period, consumption of retirees does not change. In contrast, worker consumption increases due to the reduction of tax. This leads to a higher aggregate consumption.

»Demographic structure affects the output impact of government spending shocks.«

The positive disposable income effect caused by a reduction of taxes also reduces the labor supply of each worker. However, an increase in the working population caused by making retired people return to the labor force pushes up the total labor supply, leading to higher output. The decrease in the proportion of retirees reduces the amount of investment of each worker. However, aggregate investment increases due to the increase in the working population.

Figure 1: Old-age dependency ratios (%)



Interestingly, wages rise as labor participation increases. This is because the increase in the working population increases the capital-labor ratio. Since an increase in the working population increases workers' consumption, welfare increases as labor participation increases.

»Population aging weakens the effectiveness of monetary policy on the economy.«

Dynamics of aging populations and monetary policy

We now examine the dynamic responses of the economy to a monetary policy shock and how population aging affects the effectiveness of monetary policy.

Lowering the interest rate increases inflation. In turn, the resulting decrease in the real interest rate boosts consumption and investment. Increased demand puts upward pressure on the prices of production factors, leading to higher wages and increased working hours.

An expansionary monetary policy shock on an economy with a lower proportion of workers also has a dynamic effect. A change in the demographic structure does not affect the qualitative responses of

the economy to the monetary policy shock. However, it does affect the quantitative responses of endogenous variables to the shock.

Population aging weakens the effectiveness of monetary policy on the economy. In particular, the positive impact of the monetary policy shock on consumption is weakened in an aging economy. This is because the proportion of the working population that is positively affected by the expansionary monetary policy shock decreases. Given the fact that consumption accounts for about 60% of gross domestic product (GDP) in the Japanese economy, the reduction of total consumption brings about a significant negative impact on the economy. While monetary policy has had less of an impact on investment in recent years, as shown in the work of Yoshino, Taghizadeh-Hesary, and Miyamoto (2017), our result implies that the effects of monetary policy are weakened in an aging economy.

EFFECTIVENESS OF FISCAL POLICY AND POPULATION AGING

Population aging also affects the output effects of a government spending shock. The government spending shock is identified by a forecast error, and its output effects are estimated by using the local projection method. Using data from the OECD's Statistics and Projections Database, we find that the output effect of fiscal policy is more likely to be smaller in countries where population aging is proceeding.

Empirical results

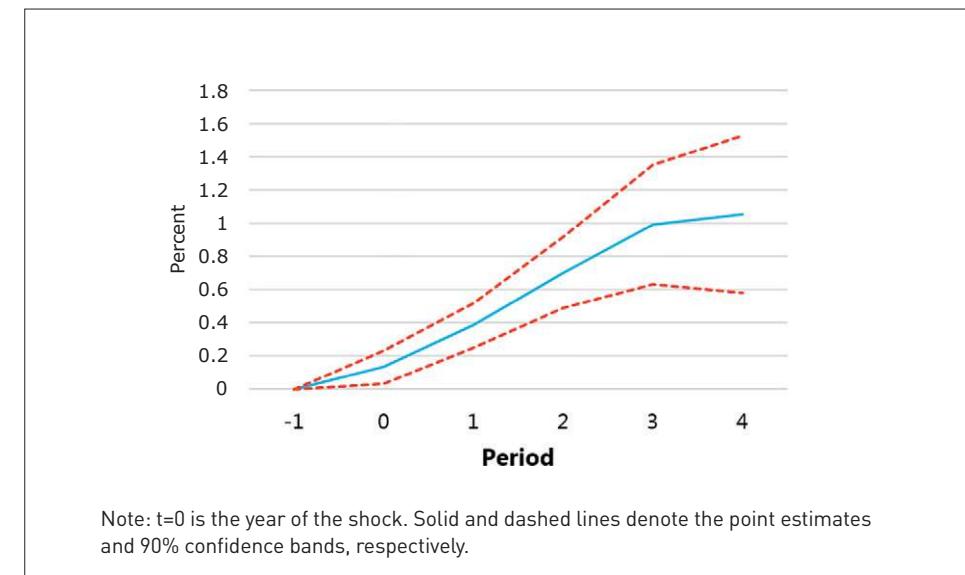
We first examine the average effect of the government spending shock. Figure 2 displays the impulse responses to an increase of government consumption by

1%. In this and subsequent figures, the horizontal axis measures years, while the vertical axis measures the deviation from pre-shock in percent for output. Dashed lines indicate 90% confidence bounds. An expansionary government spending shock increases output by about 0.1% in the same year. Using the sample average of government spending as a share of GDP, this implies a short-term fiscal multiplier of 0.7. The government spending shock also has long-lasting effects on output. Output increases by about 1.1% four years after the shock.

We now turn to examining how population aging affects the output impact of the government spending shock. Figure 3 shows the results of the empirical analysis further detailed in Yoshino and Miyamoto

(2019). The output effects of government spending shocks differ between countries with a high share of youth population (non-aging economies) and countries with a low share of youth population (aging economy). In non-aging economies, the positive government spending shock increases output by about 0.3% in the same year and by about 1.5% in the medium term. The implied short-term fiscal multiplier is 1.46. In contrast, in aging economies, the response of output is not statistically significant. This result is consistent with the prediction of Yoshino and Miyamoto (2017). They show that macroeconomic impacts of fiscal policy shocks are weakened when population aging occurs by using a new Keynesian DSGE model with heterogeneous households.

Figure 2: Output effects of an expansionary government spending shock



CONCLUSION

The world is in the midst of a demographic change toward population aging. Population aging can have significant effects on the macroeconomy. This article studies how population aging affects the effectiveness of monetary and fiscal policies. By using a DSGE model and panel data analysis, we find that population aging weakens the output effect of monetary and fiscal policies.

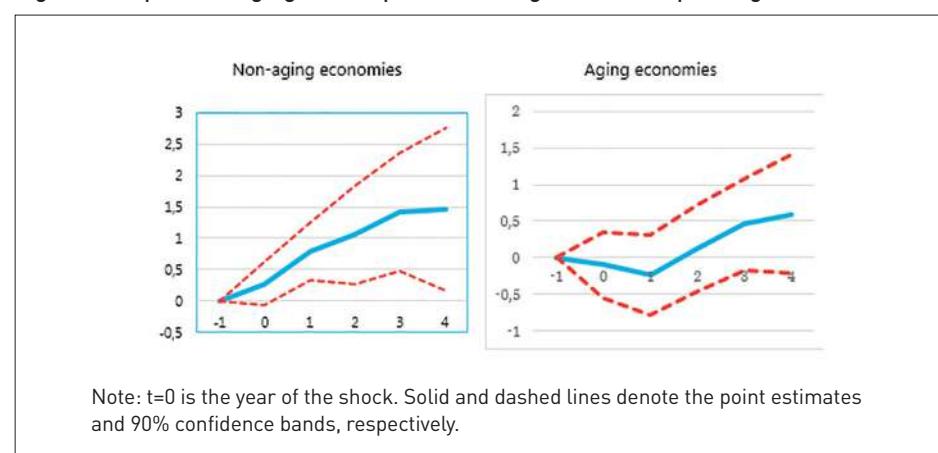
We can draw out important policy implications from our analyses. As neither monetary policy nor fiscal policy would be effective in aging economies, structural reform measures would have a more important role.

Let us consider specifically the case of Japan, which has the world's oldest population. Japan's economy continues to suffer from long-term stagnation that dates back to bursting of its economic bubble three decades ago. Monetary and

fiscal policies have been implemented to help the Japanese economy recover. Although these macroeconomic policies have brought temporary relief, a number of studies show that the effectiveness of monetary and fiscal policies has diminished (Nakahigashi and Yoshino, 2016; Yoshino et al., 2017). This is consistent with results of our analyses.

Our analyses suggest the following policy recommendations for Japan: (1) postpone the retirement age and ask people to work as long as possible; and (2) the wage rate must be based on productivity rather than following a seniority-based wage rate. These two recommendations will increase the labor force and reduce the burden of social security expenses. Budget deficits will decline, and fiscal sustainability could be achieved even if the economy is faced with an aging population. The results for Japan may also be applicable to other G20 countries facing aging populations.

Figure 3: Population aging and output effects of government spending shocks



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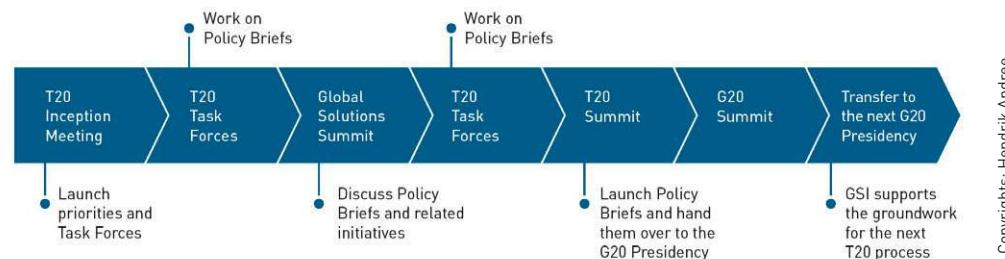
The Global Solutions Initiative for the G20

The Global Solutions Initiative is a global collaborative enterprise that proposes policy responses to major global problems, addressed by the G20, the G7 and other global governance fora. The policy recommendations and strategic visions are generated through a disciplined research program by leading research organizations, elaborated in policy dialogues between researchers, policymakers, business leaders and civil society representatives. The Global Solutions Initiative's mission is to provide an intellectual backbone for the Think20 process and thereby for the G20, pursued in the spirit of global citizenship for the recoupling of economic, social, political and environmental prosperity.



European Commission's Frans Timmermans, German Environment Minister Svenja Schulze, Global Solutions President Dennis J. Snower, OECD Chief of Staff Gabriela Ramos, German Vice Chancellor and Finance Minister Olaf Scholz, G20 Sherpa Saudia Arabia H.E. Fahad Almubarak, G20 Sherpa Argentina Pedro Villagra Delgado, and ADBI Dean Naoyuki Yoshino at the 2019 Global Solutions Summit.

The Global Solutions Initiative's Involvement in the T20/G20 Timeline



Contributions

- Contributions to global research:** The Global Solutions Initiative is built on a global network of research institutions, connecting national and international expertise in the service of global citizenship.

Implementation-oriented contributions:

The Global Solutions Initiative is inherently solution-driven and generates cutting-edge policy briefs for policy leaders of the G20, G7 and other international associations.

Organizational continuity:

The Global Solutions Initiative strives to provide a permanent trans-national, trans-organizational structure that adjusts yearly to provide a stable platform that promotes continuity and policy coherence.

Activities

The Recoupling Dashboard:

A country-specific research tool to measure the wellbeing of society beyond GDP, while illustrating the correlation between economic prosperity, social prosperity and environmental sustainability.

The Global Solutions Summit:

The annual Summit is held in Berlin, Germany, and serves as a stepping stone in the middle of the G20 calendar.

- The Global Solutions Summer School:** A network of inspired, determined individuals committed to making the world a better place present their Global Solutions in Berlin and participate in the Summit.

- Workshops and conferences:** Researchers and implementers take "deep dives" into policy areas.

Publications

- The Global Solutions Journal:** The Global Solutions Journal disseminates policy recommendations from scientists and implementers.

- G20 Insights:** The G20 Insights platform publishes policy recommendations generated during the respective G20 Presidency.

- The Social Macroeconomics Series:** The Social Macroeconomic working paper series aims to understand the role of human sociality within macroeconomic activity.

- The Global Solutions Papers:** The Global Solutions Papers contain recommendations or visions for policymakers that deal with major global challenges.

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