The Governance of Global Public Goods

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The Governance of Global Public Goods

Stefan Collignon

"If every country fulfilled its obligations under the Charter, the right to peace would be guaranteed.

When countries break those pledges, they create a world of insecurity for everyone.

So, it is time to transform our approach to peace by recommitting to the Charter -- putting human rights and dignity first, with prevention at the heart."

Antonio Guterres (06 February 2023)

Introduction

Preserving the survival of humanity is the greatest global public good. No one has expressed the need for improving the governance of global public goods more clearly than UN General Secretary Antonio Guterres when he warned that "humanity faces 'collective suicide' over climate crisis".[1] In 2015, the United Nations adopted 17 Sustainable Development Goals (SDGs) as a universal call to action to end poverty, protect the planet, and to ensure that by 2030 all people enjoy peace and prosperity. It was a road map to more inclusive growth and development that respects the limits of nature. These SDGs are one of the most condensed descriptions of global public goods.[2] They set an agenda for 2030 with 17 goals, 169 targets and 232 indicators to monitor the progress in pursuit of the goal. The 17 SDGs are integrated—they recognize that action in one area will affect outcomes in others. In other words, they generate externalities that define them as global public goods. While initially there was enthusiasm for the agenda, it has now stalled and in some areas even gone backward (UN 2023). The evidence is clear; we know what needs to be done, but actions to reach sustainable development are insufficient.[3] This requires new ideas to improve the governance of global public goods.

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[1] New York Times, July 18, 2022

[2] Global public goods can also be described in greater detail such as: maintaining peace and avoiding transborder conflicts; curbing the proliferation of nuclear arms; reversing ozone layer depletion, greenhouse effects and combating climate change; preventing epidemics and ensuring equal access to vaccines; monitoring financial institutions to prevent systemic crises; protecting global ecosystems such as forests, arable land, oceans; fostering cybersecurity; regulating international transport systems; allocating geostationary orbits; emergency aid for natural calamities like earthquakes, floods and droughts.

[3] (IPCC 2023)

Box 1
The 17 Global Sustainability Goals

1. No poverty;
2. Zero hunger;
3. Good health and well-being;
4. Quality education;
5. Gender equality;
6. Clean water and sanitation;
7. Affordable and clean energy;
8. Decent work and economic growth;
9. Industry, innovation and infrastructure;
10. Reduced inequalities;
11. Sustainable cities and communities;
12. Responsible consumption and production;
13. Climate action;
14. Life below water;
15. Life on land;
16. Peace, justice, and strong institutions;
17. Partnerships for the goals.

According to Kaul, Grunberg and Stern (1999) there are three key weaknesses in the current arrangement for providing global public goods.

- The jurisdictional gap is created by states emphasising national sovereignty.
- The participation gap prevents citizens and civil society institutions from monitoring the implementation of international agreements.
- The incentive gap is created by temptations to free ride on others.

I will concentrate on the incentive gap. To understand the governance failure of realising the common global goals, we must clarify the nature of global public goods. The incentive gap is intrinsic to the collective action problems generated by public goods (Olson 1971). Because everyone could freely access their benefits, there is no mechanism to ensure that the resources for their creation are provided in sufficient quantity. Based on this clarification, we can then design strategies for better policy implementation with global effects.

The nature of global public goods

Global public goods encompass many aspects of ordinary life, from peace and security to natural environments, technological progress, human-made regulations (such as the metric system or international treatises), and even changes in history and cultures. They are all defined by their externalities. As the world is increasingly more connected, what happens in one corner of the planet can have consequences in many other regions. These interconnections and the resulting spillover effects and externalities are particularly evident in crises, such as wars, pandemics, climate change, financial breakdowns, refugee, and migration crises; but they also play a positive role in economic development, advances of technology, peace keeping and international aid.

Economic textbooks typically speak of public goods in the context of nation states. Sometimes, the analysis is extended to regional public goods, or narrowed down to municipal public goods. However,

as a result of globalisation a growing number of global public goods have emerged. These goods potentially affect all people living on the planet. The COVID-19 pandemic, refugee crises, climate change, to mention only the most urgent ones, are global problems that have made the existence of global public goods tangible. What is the nature of these public goods? How do they differ from local and national public goods? How can they be supplied globally and efficiently?

The answer lies in the concept of externalities. The difference between the public and private benefits (or costs) is an externality that is caused by positive and negative spillover effects from specific actions by third parties. For public goods the externalities are usually large, and the benefits diffuse.[4] The mismatch between public benefits and private costs prevents the efficient allocation of resources which markets ensure for private goods.

The mismatch results from the specific characteristics of public goods which are *non-excludability* and *non-rivalness*.

Non-excludability means, no one can be barred from accessing the benefits and consuming the good or can avoid the negative consequences of such goods. A classic example is a lighthouse that signals the dangers of rocks to the bypassing ships, or air pollution that affects everyone.

Non-rivalness means the benefits or costs of such goods can be accessed repeatedly by anyone without diminishing the benefits they deliver for others. A classic example is a concert where all people jointly enjoy the music or the protection of citizens through national defence deterrence.

Public goods are distinct from *private* goods, because these are excludable and rival. Private goods can be traded on markets where the price mechanism excludes anyone not willing to pay the price and establishes rivalry between suppliers. Private goods are therefore efficiently allocated by markets because the only way to access privately offered commodities is by paying the price that covers its cost of production. But for public goods there are no markets (market failure). For public goods, the costs must be covered by the collective. Local or national public goods are usually financed by taxes. International public goods require cooperation between states and this cooperation can be strengthened by international organisation, such as the UN, IMF, etc. Producing public goods therefore requires a joint (non-rival) effort. This causes the risk of undersupply of public goods when people are unwilling to pay for something that has small benefits for themselves, but large effects in aggregate. This logic will generate incentives to refuse paying the contributions required and to free-ride on others.

The literature distinguishes between pure public goods, which are both non-rival and non-excludable, and partial public goods when the conditions of non-rivalness or non-excludability do not hold jointly. This is shown in Figure 1.

[4] Negative externalities are sometimes called public “bads” and positive externalities are public “goods”. However, we will use the term public goods for all causes of externalities. These may be material conditions, like CO_2-generating processes, or institutions and policies that affect other constituencies.

Figure 1.

Public Goods

	excludable	***non-excludable***
rivalrous	private goods	common resource goods
Non-rivalrous	club goods	pure public goods

When goods are non-rival but excludable (such as toll roads, theatres, the internet, or institutions like customs unions and monetary unions) they are called *club goods*. Club goods generate positive sum gains. Often such gains are generated by economies of scale. These joint gains create incentives to cooperate. Asymmetric information (not trusting that the others will do what they promised) can be an obstacles to cooperation, but it can be overcome by setting up independent organisations that ensure the flow of information to all group members. Non-cooperative behaviour can also be avoided when potential losers from negative externalities are compensated out of the gains. By contrast, when they are rival but non-excludable, they are common resource goods (e.g., preserving natural resources, combatting climate change, conditions that generate mass migration). Access to these goods is free and unrestricted, but the more people use them, the more the benefits for each user will dimmish. The non-excludability for common resource goods therefore generates zero-sum or even diminishing benefits and this impedes cooperation and the efficient allocation of rival benefits. When the benefits from a public good are small for a national government, or if they only occur in the distant future, short-sighted policy makers may seek to free-ride on others.

The scope of public goods

Governance theories such as the subsidiarity principle often treat public goods as if they formed a hierarchy from the most specific to the most general with local public goods at the bottom, and national, regional, or global public goods on a higher level. Local public goods are often dominated by material conditions, such as the construction of schools or hospitals or streets or power stations. National public goods are sometimes more value driven and prone to governmental policies that affect all citizens. Regional public goods emerge with regional integration, such as in the European Union. Global public goods generate spill-over effects from national and regional public goods that potentially affect all humankind.

For reasons discussed below it is useful to give up this hierarchical view. A more appropriate approach focuses on the *scope* of public goods. The scope describes the size of the group of people affected by the externalities and by the intensity of their cost and benefits. For example, a hospital mainly affects local people, and so does a nuclear power station that provides electricity for a local community, but if there is an accident, the negative spillover of the nuclear disaster is large and global.

The literature on SDGs has shown that there are cross-cutting issues and synergies between the different goals; for example, for SDG 13 on climate action, the IPCC sees positive externalities with SDGs 3 (health), 7 (clean energy), 11 (cities and communities), 12 (responsible consumption and production) and 14 (oceans).[5] Conversely, there exist also trade-offs between the goals, such as between ending hunger and promoting environmental sustainability.

[5] (IPCC 2018)

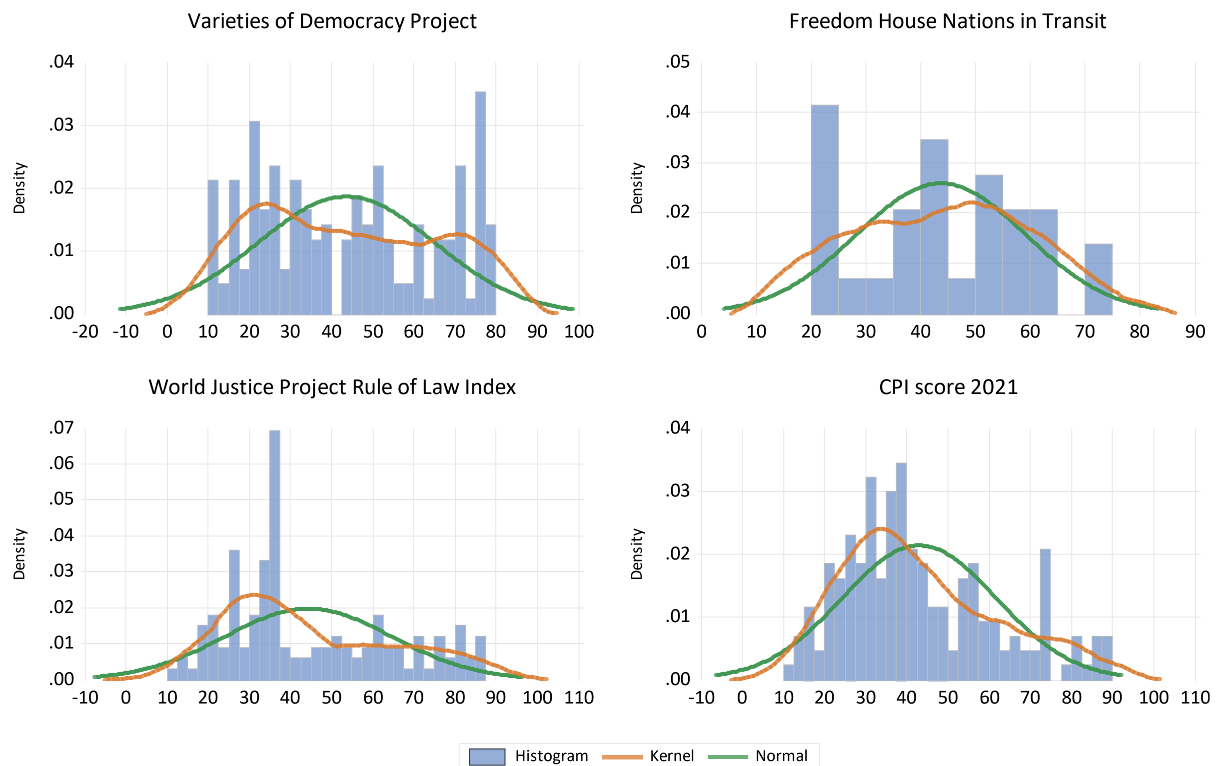
Yet, the larger the geographical scale of potential externalities, the greater is the extend of heterogeneity with respect to the willingness of contributing to their efficient provision. Traditionally, spillovers on a narrow geographic scale were managed by foreign policy, but with the expansion of the scope of public goods resulting from technological progress, demography and economic globalisation, institutions of global reach have become a necessity.

The governance of global public goods requires the cooperation between governments. However, the incentives for cooperation diverge with the increasing scope of public goods. Some of these divergences result from the inherent incentive structure of public goods discussed in the previous section. Others result from cultural diversities among countries or from the narrow interests of dominating elites. This is a fundamental difference between global and national (or European) public goods, where collective preferences and cultural values are more homogenous. A crucial but often neglected factor are economic and political regimes. In democratic societies, civil society organisations monitor, and citizens decide. Citizens are the owners of public goods; they are the sovereign who collectively appoints governments as their agents. In authoritarian and dictatorial regimes, elites highjack the institutions of the state to serve their narrow interests (Acemoglu, D. and J. Robinson 2012). The ownership of public goods has been usurped by local elites who serve their partial interests. In many countries, access to government positions is the fast lane from poverty to personal wealth. This means that the decision to cooperate serves the interests of governing elites which will not systematically coincide with the collective preferences of citizens. When partial interests oppose the public good, cooperation fails. The distinction between democratic, authoritarian, and dictatorial regimes is therefore important for the effective governance of global public goods. Box 2 shows that the distribution of political regimes in the world is biased toward authoritarian and corrupt governments. Hence, the wider scope of global public goods does not allow humankind to exert direct control over the management of global goods. This is a major obstacle for the provision of global public goods.

Box 2

The distribution of political regimes in the world

Political regimes in the world are tilted toward authoritarian and dictatorial regimes. The chart below shows the distribution of four well-known indicators for democracy, freedom, rule of law and perceived corruption. In all cases, a high index value indicates high standards of democracy and low corruption. The histogram for each indicator shows the kernel density to the left of a normal distribution. This means that values for low democracy, freedom, rule of law, and high corruption are more frequent in the world.



Varieties of Democracy (V-Dem) is a unique approach to conceptualizing and measuring democracy. It provides a multidimensional and disaggregated dataset that reflects the complexity of the concept of democracy as a system of rule that goes beyond the simple presence of elections. The V-Dem project distinguishes between five high-level principles of democracy: electoral, liberal, participatory, deliberative, and egalitarian, and collects data to measure these principles. *https://www.v-dem.net/about/v-dem-project*

Freedom House is founded on the conviction that freedom flourishes in democratic nations where governments are accountable to their people; the rule of law prevails; and freedoms of expression, association, and belief, as well as respect for the rights of women, minority communities, and historically marginalized groups, are guaranteed. *https://freedomhouse.org/*

The 2022 *WJP Rule of Law Index*® is the world's leading source for the rule of law. It evaluates 140 countries and jurisdictions around the world. Measuring the rule of law since 2008 the Index has been at the forefront of creating positive social change through information. *https://worldjusticeproject.org/rule-of-law-index/*

Transparency International focusses on issues with the greatest impact on people's lives and holds the powerful to account for the common good. It publishes the Corruption Perceptions Index (CPI) and ranks 180 countries and territories around the world by their perceived levels of public sector corruption, scoring on a scale of 0 (highly corrupt) to 100 (very clean). *https://www.transparency.org/en/cpi/2022*

The difficult governance of public goods

The characteristics and scope of public goods determine the incentives to cooperate. The implication for the governance of global public goods is as follows. First, we look at the nature of public goods and then at the implications for their scope. We distinguish three groups of public goods.

For the first group of global *club* goods, the incentives to cooperate are strong, because the cooperation generates positive sum gains out of which potential losers can be compensated. However, the performance and success of such cooperation requires transparency so that each member of the group can observe and rely on the cooperation by others. Such trust can be supported by global multilateral institutions. Countries which benefit more than others must take a leadership position in providing compromise positions, and individual countries or coalitions of counties must not have veto power which allows them to blackmail others to get compensation.

For the second group of global *common resource* goods, cooperation is unlikely to emerge because they generate zero-sum or diminishing gains. Hence, one party's gain is another party's loss. Distributional conflicts are harsh. The efficient management of such public goods requires a global authority that can set binding rules and enforce the compliance of agreements about the generation and allocation of public goods.

Similarly, the third group, *pure* global public goods also require global institutions which can set rules and regulate the common interest of humankind. The legitimacy of such authority must be established by a global compact on the governance of global public goods.

Thus, to manage these last two groups of public goods requires a central authority which does not exist in the world. Since the Peace of Westphalia in 1648, the world order is based on the principle of national sovereignty and non-interference into the affairs of other states. The European Union is the most advanced experiment in overcoming this tradition by assuming joint responsibility for common public goods. But in a world stacked up by autocrats and dictators this model for managing global public goods is unlikely.

Nevertheless, a reform of the governance of the United Nations could set up mechanisms for imposing solutions when cooperation between stated fails. Under the present-day arrangements, the Security Council fosters negotiations, imposes sanctions, and authorizes the use of force, including the deployment of peacekeeping missions. Critics say the Security Council fails to represent many regions of the world and that increasing frequency of the veto is inhibiting its functionality (Ibrahim, Bussemaker and Rosenthal 2023). Since the Russian invasion of Ukraine and with the rising systemic conflict between China and the USA, the Security council has become dysfunctional. *The way out of this impasse is to install legislative power to the UN General Assembly.* With appropriate majority voting rules (which take into account Box 1) it must be possible to enact and enforce international legislation in the interest of humanity. This reform of the governance of global public goods would primarily apply to global resource and pure public goods.

Aggregating club goods

For club goods, we can take a different approach. One possibility is aggregating groups of states with likeminded governments and then gradually extending the size of the groups and deepening the positive externalities they can generate. Box 2 lists seven conditions for aggregation, based on (Buchholz and Sandler 2021).

Box 2

Technology of aggregating contributions for global public goods.

The *technology of aggregation* determines how countries' contributions determine the global goods' overall level for consumption or use. Several options are available.

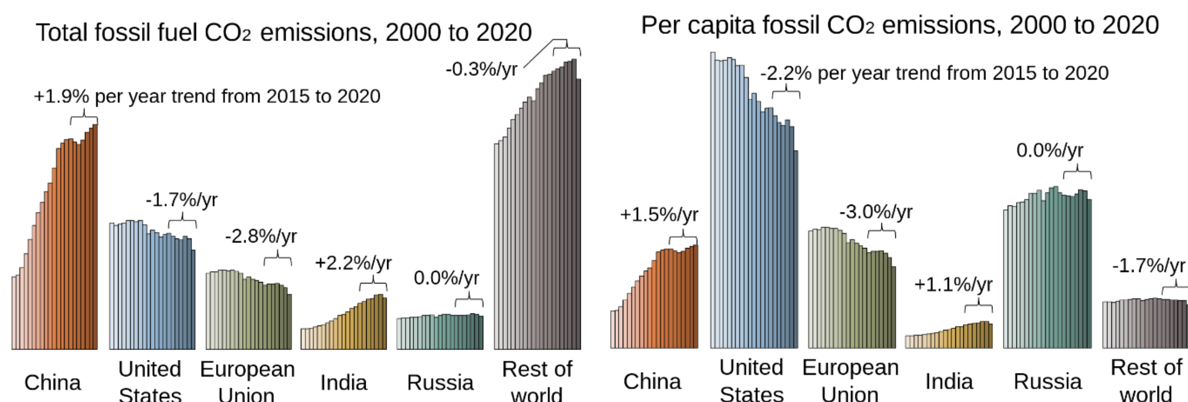
1. *Summation* means each contributor adds equally at the margin to the level of the public good. This encourages free riding and underprovision. Outcomes may be improved by grants and loans, and multilateral institutions.
2. *Weighted sum* aggregation means each country's provision is given an empirical weight prior to the determination of the provision levels. These weights reflect objective conditions such as the size of GDP, special or locational factors (e.g., land-locked countries may not contribute to ocean protection to the same degree as coastal countries).
3. For *weakest link* global public goods, the smallest individual contribution fixes the aggregate level of the public good. For example, the surveillance for financial crises or disease outbreak is only as good as the smallest effort made to prevent a crisis. Here, capacity building is essential and global institutions or dominant country partnerships can assist weakest link countries.
4. The *weaker-link* aggregation for providing public goods is a more moderate form, where the smallest contribution has the greatest influence on the global public goods' aggregate level followed by the second smallest contribution and so on. This does not prevent crises but can slow down or contain the spreading of systemic crises. Insurance schemes can be tools for improving of such goods.
5. A *threshold* aggregation requires the overall provision of a global public good to meet or surpass some alert level before benefits are generated. Emergency crisis aid falls into this category. Multilateral institutions can induce countries to be threshold contributors and thereby increase the willingness of individual contributors to pay.
6. *Best shot* global public goods hinge solely on the largest contribution by a country that exerts global leadership and provides public goods as a service to all. Global income inequality promotes this provision by rich countries.
7. Better shot public goods a softer variant that allows coalitions of countries to ensure the provision of the public good. This approach for providing public goods is appropriate if no single country is willing to take leadership. In the European Union this function was frequently assumed by the French German cooperation.

Effectively, the strategy of aggregation calls for the creation of clubs with different standards, and clubs of clubs that gradually improve the implementation of Sustainable Development Goals. The important part of this approach is that clubs are exclusive which means that they can establish conditionality on fulfilling sustainability criteria. Members of a given club ensure the sustainability of the common goals by jointly providing resources for their production. They also impose barriers and sanctions for states that do not cooperate. This creates incentives to join a club that contributes to the efficient supply of global public goods and SDGs.

The Paris Climate Agreement serves as an example which can be extended to other SDGs. The Agreement is a legally binding international treaty on climate change. Countries submit national climate action plans, which are nationally determined contributions (NDCs) toward achieving the agreed goal of limiting global warming to 1.5°. Each country must determine, plan, and regularly report on its contributions. Over time, goals must become more ambitious. Not all states make the same contribution, but more developed countries provide financial assistance to countries that are less endowed and more vulnerable, while also encouraging voluntary contributions by other parties.

However, because countries determine themselves what contributions they should make to achieve the aims of the treaty, enforcement is hardly possible. Figure 1 shows that Western democracies have made significant efforts (even the United States who exited the Paris Agreement under President Trump but have returned under President Biden), while large emerging countries like China, India and the Rest of the World have increased their CO_2 emissions. In the present form, the Paris Agreement is toothless: Global carbon dioxide (CO2) emissions from energy combustion and industrial processes grew by 0.9% in 2022 to a new all-time high of 36.8 billion tonnes (UN 2023).

Figure 1.



Source: https://en.wikipedia.org/wiki/Paris_Agreement [accessed 1.7.2023]

How would the aggregation principle solve this problem? For argument's sake, let's speak of two clubs, emission reducers and emission raisers. The reducers form an SDG-club that grants positive incentives for members who wish to reduce CO_2. For example, they provide financial support and subsidies for the costly investment in new technology. At the same time, they would make life more difficult for states who stay outside the club. For instance, they would exclude high and not cooperating emission states from accessing their internal markets. This can be done efficiently because controlling access to their home markets is within their power. The conditions of financial support need to be carefully considered.

Sustainability clubs can overcome the criticism which has been addressed to President Biden's Inflation Reduction Act (IRA). This law is the largest piece of federal legislation ever to address climate change in the US. However, its unilateral protectionist provisions have deeply frustrated US trade partners. In a sustainability club, all club members would agree to keep their markets open and provide fund for the ecological transition, while differentiated regulations (see Box 2) are still addressing each member state's specific conditions. Sustainability goal clubs are therefore an improved tool for multilateralism in global affairs. In today's context of renewed competition between liberal and authoritarian states, winning countries to join a particular club that provides global public goods could reduce global tensions (in accordance with SDG 16 and 17).

Reforming the global economic governance

In his address to the UN General Assembly in 2023, Antonio Guterres declared: "Something is fundamentally wrong with our economic and financial system. The global financial architecture is at the heart of the problem. It should be the means through which globalization benefits all. Yet it is

failing. The global financial architecture does not need a simple evolution; it needs a radical transformation. It is time for a new Bretton Woods moment."

No doubt, the global financial system is fragile and needs reform. However, there are fundamental differences between the present situation and Bretton Woods in 1944. To start with, in the 27 years between 1913 and 1950, the world economy grew by only 1.8% pa. In the 27 years since the Wall came down in Berlin, the global economy grew by 3.3 percent and between the creation of European monetary union in 1999 and 2015 the rate was 3.6 percent. At Bretton Woods, monetary instability was identified as the major economic cause for two world wars. The principal goal of the Bretton Woods agreement was to create an efficient foreign exchange system that would prevent competitive devaluations of currencies and promote international economic growth. Today, exchange rate stability between the major currencies is sustained, unemployment is low, and despite a significant inflation shock, financial markets strongly expect that inflation will return to 2 percent. Hence, today's problems do not arise from lack of growth, inflation, or unemployment. They emerge from the structural change in the world economy which over the last 30 years has generated growing inequalities *within* states and growing equality *between* states.

Growing *inequality within states* undermines the fundamental consensus that no one will be left behind as the economy grows. If people cannot trust this age-old principle anymore, they will rebel and aggressively defend their partial interests. Solidarity with others, including with victims of disasters and persecution will vanish.

Growing *equality between states* is the result of rapid growth in emerging economies, most prominently China. The equality is manifest in catch-up growth of GDP per capita, but it does not extend to social and political values. This economic development undermines the role of the United States as the hegemon providing the security anchor for the system. Instead, competing networks emerge. For example, the share of G7 countries in global GDP has fallen from 50 percent in the 1980s to 30 percent today, while the BRIC states have climbed to 31.5 Percent. They now seek to replace the US dollar as the world's anchor currency (presumably with the Renminbi)[6] which will inevitably create greater uncertainty and exchange rate instability in the world.

Nevertheless, a decline in the dollar share of international reserves has taken place since the turn of the century (Arslanalp, Eichengreen and Simpson-Bell 2022). This decline reflects active portfolio diversification by central bank reserve managers; it is not a byproduct of changes in exchange rates and interest rates, of reserve accumulation by a small handful of central banks with large and distinctive balance sheets, or of changes in coverage of surveys of reserve composition. The decline in the dollar's share has not been accompanied by an increase in the shares of the pound sterling, yen and euro, other long-standing reserve currencies and units that, along with the dollar, have historically comprised the IMF's Special Drawing Rights. Rather, the shift out of dollars has been in two directions: a quarter into the Chinese renminbi, and three quarters into the currencies of smaller countries that have played a more limited role as reserve currencies. A characterization of the evolution of the international reserve system in the last 20 years is thus as gradual movement away from the dollar, a recent if still modest rise in the role of the renminbi, and changes in market liquidity, relative returns and reserve management enhancing the attractions of nontraditional reserve currencies.

[6] World leaders are often economically illiterate. For example, at a recent BRICs meeting in South Africa, President Lula talked about replacing the dollar, and argued that the US dollar dominance put countries such as Brazil at a disadvantage when it came to trade. When Argentina and Brazil or China and Brazil trade with one another, he asked, why can't we trade in our own currencies?" (Financial Times, June 23 2023). The answer is: of course, you can, but Argentinian and Brazilian traders find it more cost-efficient to use the US dollar as an anchor currency.

The reason why world trade and finance need a global anchor currency, and only one, lies in the greater exchange rate stability which supports investment, and the lower transaction cost which come with large volumes of trade.[7] Yet, their political values are very different and this must be cause of concern. The average of the BRIC indices for non-corruption, rule of law, and democracy are roughly half of the G7. These challengers seek to gain supporters. Attracted by the promise to access to new financial resources from a new regional development bank, Algeria, Egypt, Audi-Arabia, Iran, Indonesia, Thailand, Senegal, Argentina, and Venezuela would like to join the BRICS. Their average indices for anti-corruption, rule of law and democracy are even worse than for the BRICS. See Table1.[8]

Table 1.

Index:	Anti-corruption	Rule of Law	Democracy
G7	71.3	74.0	73.4
BRICS	38.0	34.8	41.3
BRIC Candidates	34.7	32.0	31.0

If you give a gun to a gangster, he will shoot you; if you rehabilitate him, you can live in peace. The Bretton Woods institutions of IMF and World Bank provide loans and liquidity on a global scale, but they are subject to strict conditionality. This ensures the long run stability of the global financial system. Of course, sharp crises have happened (in Asia in 1998; in the USA in 2007), but in the long run the system has always returned to a steady state equilibrium. The greatest danger in the global financial architecture is that the emerging challengers to the hegemon will set up institutions that are not imposing the financial solidity required for the proper functioning of financial market. Increased debt may lead to a short run boom that benefits the elites, but not necessarily the sustained provision of global public goods. It will be followed by financial crises of unknown violence. For this reason, it is important that the reform of the global financial architecture combines the need for investment with the perspective of financial stability, strict conditionality and the need to support the provision of global public goods.

Financing SDGs and global public goods

The need for financing the investment required to achieve all SDGs is massive. An IMF Staff Discussion Note (Gaspar, et al. 2019) found in 2019 that delivering on the SDG agenda will require additional spending in 2030 of 2.6 trillion US dollars (2.7 percent of world GDP), US$0.5 trillion for low-income developing countries and US$2.1 trillion for emerging market economies. However, high income countries also need to make costly shifts in their economic structures – especially with respect to climate change, energy, and food security.

How can these enormous amounts of investment be financed? The easy answer is: more debt. A UN document (UN 2023, May) put it clearly in context: “Sovereign borrowing allows countries to invest in the future. Productive investments, including in resilient infrastructure, can improve debt sustainability in the long run: a growing economy helps to raise domestic tax revenue and the capacity to service debt over time. Debt financing is also critical to the financing of crisis responses. Such

[7] (Kawai and Akiyama 1998); (McCauley 2011)

[8] Sadly, Thailand fits in nicely with these countries. The respective values are:

	Anti-corruption	Rule of Law	Democracy
Thailand	35	35	26

positive outcomes are, however, only achievable if borrowing and lending decisions are made responsibly, resources are used effectively, risks are well managed, and lending is affordable."

In other words, these new investments stand in the context of SDG 17. This goal calls for a global partnership for sustainable development and highlights the importance of macroeconomic stability and of mobilising financial resources for developing countries. All reform proposals must heed attention to this condition. SDG 17 also stresses the importance of trade and equitable rules for governing it.[9] This sets the difficult path between the Scylla of unsustainable debt and the Charybdis of more rapid growth that destroys natural resources. Only debt that is coherent with these double requirements of sustainability can contribute to the attainment of SDGs. We must distinguish debt for long term development, liquidity provision for sound investment, short term emergency funds.

Long term development debt

Given the state of political regimes in the world, pumping money into states that are controlled by more or less corrupt elites is unlikely to achieve sustainable development goals. Simply leveraging public debt with private debt does not change this logic. An alternative could be the decentralisation of lending to target-specific SDG projects with greater technical surveillance.

We suggest setting up *investment funds for target-specific SDG projects*. For example, one fund would focus on investment for CO2 reduction; another on energy transition to renewable resources; a third one on cleaning up the global oceans, etc. These funds would be professionally managed with a technical focus on achieving sustainability goals. Being constituted with technical missions for SDGs, they are politically independent from governments – like modern central banks. Investors in these funds reflects a variety of stakeholders: International institutions like IMF, World Bank, European Union, ASEAN; a club of willing states; private investors who are involved in the management and realisation of the sustainable development goal. The fund management would be authorised to borrow in financial markets at commercial rates and conditions in addition to the share capital paid up by investors. This keeps the pressure up on improving efficiency. As these funds are target-specific, the fit between material output and finance input is tight – certainly tighter than if one would transfer money to national governments which then decide what to do with this aid. This cuts short the social elevator of corruption.

The IMF can play an important role in setting up Target-specific SDG project funds as a shareholder that invests Special Drawing rights into the funds' share capital. This requires to declare these new funds "prescribed holders of SDR". At the moment, there is only a very limited number of institutions outside the IMF that can hold SDRs as assets.[10]

Target-specific SDG project funds are a new form of decentralised multilateralism. Traditionally, multilateralism is a form of cooperation between at least three states. Target-specific SDG project funds allow cooperation with a focus on results, not only between states but between stakeholders who are directly affected by the externalities of global public goods. They would therefore change the

[9] SDG 17 also emphasises the importance of access to science and technology, in particular internet-based information and communications technology.

[10] The 15 prescribed holders are: four central banks (European Central Bank, Bank of Central African States, Central Bank of West African States, and Eastern Caribbean Central Bank); three intergovernmental monetary institutions (Bank for International Settlements, Latin American Reserve Fund, and Arab Monetary Fund); and eight development institutions (African Development Bank, African Development Fund, Asian Development Bank, International Bank for Reconstruction and Development and the International Development Association, Islamic Development Bank, Nordic Investment Bank, and International Fund for Agricultural Development). (Plant 2021)

traditional top-down governance hierarchy. The funds would not only work across nations but also across higher and lower governance levels such as regional entities or local municipalities. They could also federate low-level administrations into target specific cooperation. For example, a coalition of several municipalities could set up a joint program for waste processing that generates economies of scale and would receive finance directly for the target-specific project fund for Waste Management without being dependent on national governments.

Short-term liquidity provisions for long-term investment

Sovereign debt has been rising worldwide over the last decade and in many countries, it has once again reached critical levels. Nine least developed countries and other low-income countries are currently in debt distress, and another 27 are at high risk (UN 2023, May). Not surprisingly, yields for such debt are rising, which generates a vicious spiral. Yet, simply granting debt relief is not desirable, as it would generate moral hazard. Some structural faults in a country's debt dynamic can be solved by debt resolution programs which would involve our suggested target-specific SDG project funds. The surveillance programs of IMF and World Bank, BIS, and others and if needed adjustment programs, are also crucial for preventing misallocations of funds. However, debt restructuring may require additional short run funding.

In the national context, liquidity is provided by central banks acting as lender of last resort. In the global context, international liquidity is created by Special Drawing Rights (SDRs), issued by the IMF. SDRs are reserve assets for central banks. They are not money.[11] SDRs can be exchanged for currencies among the IMF member countries and therefore soften the hard budget constraint on foreign exchange and increase the flexibility of national monetary policies. Their value is determined by a basket of the five freely and most traded currencies. SDRs play a role if a country with high current account deficits is running out of foreign currency reserves. This is particularly useful when a country is hit by a sudden disaster (say an earthquake, or devastating storms or floods) and there is urgent need for importing resources.

However, when the current account deficit is structural and persistent, the central bank's foreign exchange reserves are running out and SDRs will not remedy this. The need for medium to long term finance requires then adjustment policies. However, with respect to SDGs traditional adjustment policies linked to austerity are not enough. They also must consider the structures of foreign trade and public goods must become a criterion for the sustainability of current accounts. For example, due to heavy government subsidies and large economies of scale, China has an 80 percent monopoly on the global solar manufacturing industry today. According to the International Energy Agency,[12] this control has emerged as a threat to the huge consumption of solar PV systems needed to help achieve net zero emissions throughout the planet. Countries wishing to switch to solar power must import panels from China for which they need renminbi. For rich industrialised countries, this is probably affordable, but for less developed and emerging market economies, such energy transition requires foreign exchange which they do not have. A new allocation of SDRs by the IMF would not help, as deficit countries would have to switch their SDRs for renminbi (for which they also must pay interest) and China accumulates interest income. Diversification is one of the key strategies for reducing supply chain risks. A more balance structure of solar panel production would enable countries to move to solar energy without balance of payment problems.

New SDRs are allocated in proportion to countries' quota shares. The last allocation took place in August 2021 in response to the Covid crisis and was with US$650 billion (€550 billion) the largest in

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[11] Money is the *liability* of central banks. Central bank are *assets* and therefore not money.

[12] https://www.iea.org/reports/solar-pv-global-supply-chains

history (0.6 percent of world GDP).[13] An initiative was also launched to re-channel SDRs to vulnerable low-income countries, and the IMF is setting up a Resilience and Sustainability Trust (RST) that IMF members may stock up with funds, using their SDR allocations on a voluntary basis. The IMF will monitor these funds and ensure that these SDRs are distributed to members on the condition that they implement the necessary economic policies. The EU supports the re-channelling process, in the awareness of the looming risks for the stability of the international monetary system if highly indebted and less wealthy countries are not supported in fighting the pandemic and attaining economic recovery (European Parliament 13-06-2022). This logic must prevail for SDGs more generally.

Taxation

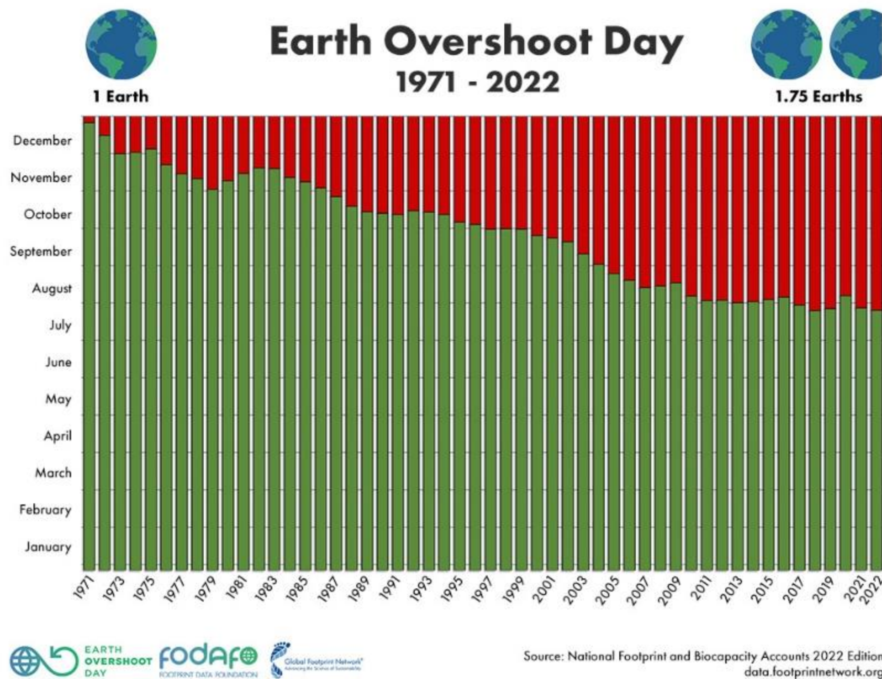
Fiscal policy has a crucial role for development. Specific SDGs were set in development areas for which public intervention is critical, including ending poverty (SDG1) and hunger (SDG2), improving health (SDG3) and education (SDG4), achieving gender equality (SDG5), reducing inequality (SDG10), and enhancing infrastructure (SDGs 6, 7, 9, 11). This assigns a fiscal role for redistribution, through taxes and income-related transfers, and for equalizing opportunity, through in-kind spending (Gaspar, et al. 2019).

Typically, tax-to-GDP ratios are less than half of those in advanced economies. This opens a space for raising taxes in less developed countries and emerging markets. Adopting a medium-term approach to raising revenue is critical to achieving and sustaining the much-needed increases in the tax-to-GDP ratios. According to the IMF paper (Gaspar, et al. 2019), increasing the tax-to-GDP ratio by 5 percentage points of GDP in the next decade is an ambitious but reasonable aspiration in many countries. This would require (1) building broad-based consensus for medium-term revenue goals to finance needed public expenditures; (2) designing a comprehensive tax reform covering policy, administration, and the legal framework; (3) committing to sustained political support over multiple years; and (4) securing adequate resources to support coordinated implementation of the medium-term revenue strategy. Such public consensus is more likely in democratic societies as authoritarian and dictatorial elites often use tax income for their own enrichment. This danger must be taken in consideration when richer countries commit to aid and transfers. Countries need to spend not only more, but better. Structural reforms at home are often a prerequisite for collecting higher revenues,

Conclusion

Our planet is suffering. Each year, *Earth Overshoot Day* marks the date when we have used all the biological resources that the earth can renew during the entire year. Figure 2 shows that we are running a permanent deficit on global renewable resources. Like a permanent current account deficit that one day turns into a sudden currency crisis, the likelihood of the sudden collapse of the global conditions of material reproduction is rising. It would be nice if governments would act, but the political economy of partial interests blocking the proliferation of public goods and the accomplishment of sustainable development goals tells us that we should not expect too much from the good will of national governments. Taking power from governments and placing it in the hands of specialized task-oriented agencies that create common club goods might prove a more successful approach.

[13] The allocation was vetoed by President Trump and then authorised by the incoming Biden administration.



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