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Rethinking international financing for health to better respond to future pandemics

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ABSTRACT

International financing for health has been high on the political and global health agenda since COVID-19. The recent launch of the Pandemic Fund represents the first consolidated effort of the international community to mobilise additional voluntary financial resources for the purpose of strengthening global efforts in pandemic prevention, preparedness and response (PPR). Against such a dynamic landscape, building on recent critiques and new policy proposals, we propose a new generation of more equitable, effective and coordinated financing arrangements for pandemic PPR and for global health and development more broadly: lessons that could be applied in the ongoing endeavour of the Pandemic Fund. We also explore the principles of Global Public Investment and consider their potential to achieve greater inclusiveness in governance, diversity in financing, and transparency and performance in operations. The Pandemic Fund could become the first example of a global health initiative based on innovative concepts. It needs to be broad based, more flexible, leverage a great variety of funding sources and join forces with multiple stakeholders to maximise the impact.

SUMMARY BOX

⇒ Building on the key learning points from major global health initiatives and drawing out their implications for the Pandemic Fund, the authors examine recent critiques and new policy solutions in a wider and longer-standing literature assessing the global health financing landscape.
⇒ The authors take a substantial policy step by outlining how a proposed new reform agenda, Global Public Investment (GPI), could address some of these challenges and what would be required to implement GPI in the context of the Pandemic Fund; the authors further explore the key principles of GPI and consider their potential to achieve greater inclusiveness in governance, diversity in financing, and transparency and performance in operations.
⇒ The authors argue that the Pandemic Fund needs to incorporate and meaningfully include a broader contributor base, and devise a new governance model that can ensure the impact of its investments is maximised in respect of equity and return on investment.
⇒ The Pandemic Fund and future global health initiatives need to combine creativity with inclusivity in introducing new building blocks and 21st century approaches to international public finance.

INTRODUCTION

Effective international health financing, via global health initiatives (GHIs) and funds, can play a significant role in supporting the development of national and global health systems, usually with a focus on low-income and middle-income countries (LMICs).[1] The global health community has dedicated great efforts to mobilise resources for such GHIs in recent years. The total volume of global health financing, inclusive of COVID-19-related funding, reached US$67 billion in 2021: more than four times the amount in 2000 (figure 1).[2] At the same time, the structure of global health funding has changed significantly over the past decades. According to the Institute for Health Metrics and Evaluation health financing data, the share of bilateral aid from sovereign countries has declined from around 41% in 2000 to 28% in 2021. Concurrently, the proportion of funding dispersed through GHIs, including Gavi, the Vaccine Alliance (Gavi), the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund), Coalition for Epidemic Preparedness and Innovations (CEPI), and other non-governmental organisations, has increased from 16% to 36%.

The growth in financing has gone hand in hand with an increase in the number and variety of stakeholders in global health and has contributed, in turn, to a series of more structural challenges: from a more fragmented global health agenda, to competition between GHIs for funding, and to a top-down approach to financing for global health that has failed to sufficiently incorporate the voice

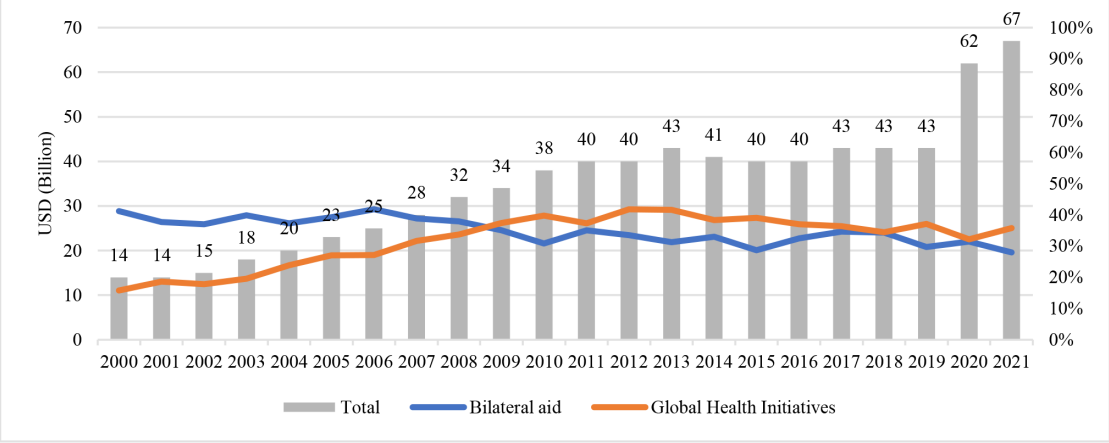

Figure 1 Volume trends in global health financing, 2000–2020. USD, US dollar.

of recipient countries in decision-making and implementation.[3–5] In order to address some of these shortcomings, the Wellcome Trust-funded Future of Global Health Initiatives process, co-chaired by Norway and Kenya, was established in 2022 to report on possible remedies.[6] Discussions are also under way, led by the WHO, to establish a new Medical Counter Measures platform.[7] Yet, the COVID-19 pandemic has led to at least one new GHI, the Pandemic Fund, which was purposefully crafted to mobilise additional financial resources for pandemic prevention, preparedness and response (PPR), while existing funds such as Gavi and the Global Fund will continue to play an important role in the global health architecture.

Where does the Pandemic Fund sit in these discussions? Like other GHIs, the Pandemic Fund emerged not as an intergovernmental initiative but through the initiative of governmental and private actors. It was promoted by the G20 starting with the High-Level Independent Panel on financing the global commons for pandemic preparedness and response launched in January 2021. The respective G20 presidencies of Italy and Indonesia advocated for a new financial instrument. It was therefore less based on a global movement, and less a common undertaking of the United Nations and its agencies, than a concerted effort of the major economies of the world brought together in the G20 format. With the World Bank as the trustee and the WHO as the technical lead, the Pandemic Fund is mandated to support and strengthen the capacity building and implementation of pandemic PPR under the International Health Regulations (IHR 2005) and other internationally endorsed legal frameworks. Although the political and health dynamics of COVID-19 emphasised the need for financial instruments to support these efforts, especially in LMICs, successive global health crises, including H1N1 influenza (2009), Ebola (2014) and Zika (2016), had previously highlighted the weaknesses of the IHR,[8] especially in terms of their capacity building requirements. Recognising this, the Pandemic Fund is expected to support and reinforce seven core capacities, including laboratories, surveillance, human resources/workforce strengthening, infection prevention and control, risk communication and community engagement, zoonotic diseases and medical countermeasure readiness, selected from among the areas listed in the IHR 2005, State Party Self-Assessment Annual Report and Joint External Evaluation tools. The Pandemic Fund's first round of a Call for Proposals was opened in March 2023.[9 10]

It is to be hoped that new GHIs such as the Pandemic Fund will be able to mobilise sufficient and truly additional resources and be a positive addition to international financing for health while keeping to a minimum duplication and further fragmentation of the global health architecture.[5 11] Yet, once again, with just about US$2 billion secured so far by the Pandemic Fund, it falls far short of the ambitious target of US$10.5 billion per year indicated as the required level by the G20 High-Level Independent Panel.[12] It has become evident that the need to improve both the volume and the governance of international finance for health is a global priority, as more than a decade of critical literature has emphasised.[13 14] It has further become only that much clearer that it matters not only how much funding is raised, but how that funding is managed and spent. Looking ahead to ways in which another pandemic on the scale of COVID-19 could be avoided and more effectively responded to, the Pandemic Fund should therefore give priority to inclusiveness in governance and employ new financing modalities that are transparent, high performance and support the realisation of health equity (figure 2).

A MORE DIVERSIFIED FINANCING LANDSCAPE: CHALLENGES AND OPPORTUNITIES

A critical question that hangs over the Pandemic Fund at present is where the money to support its medium to longer-term ambitions will come from. Recent work has revealed the skewed nature of current global health funding with over-reliance on just a few core donors, as shown in table 1.[15] The total amount requested in 2022 in multiannual funding asked from just a few primary

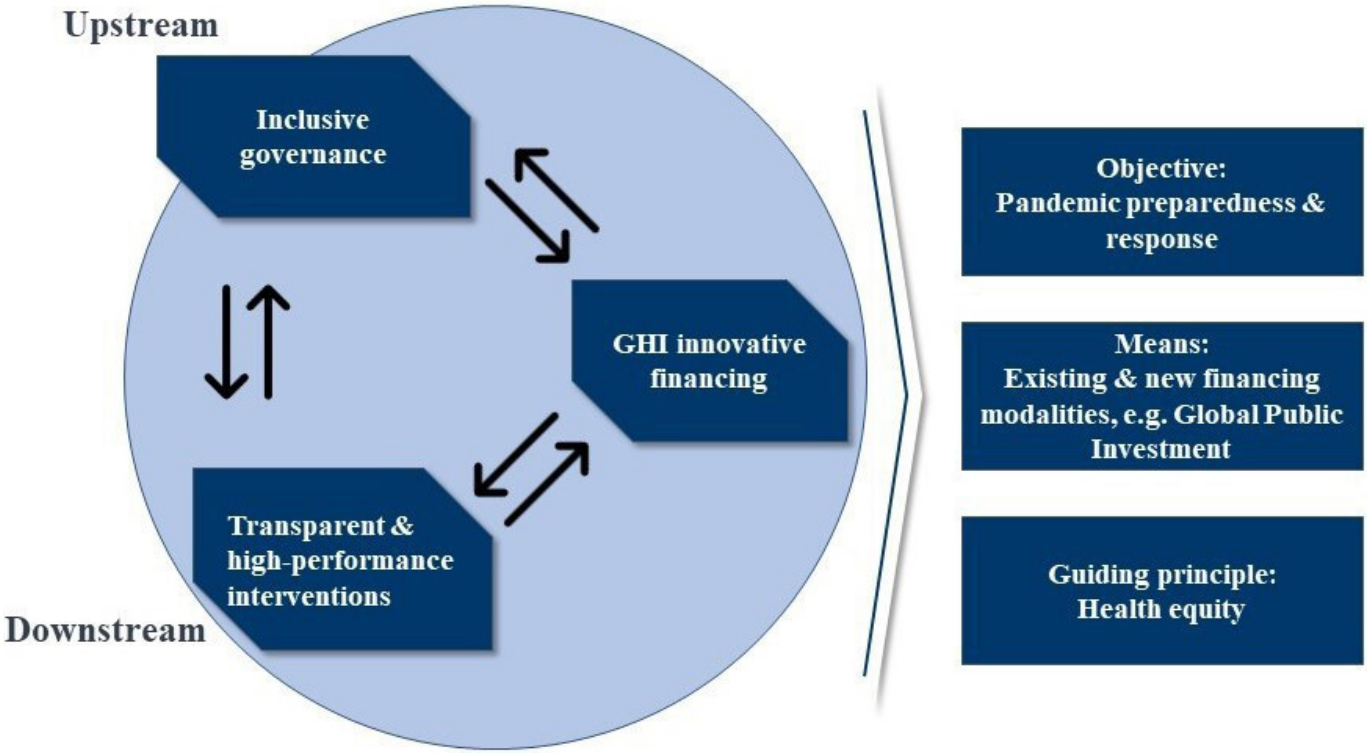

Figure 2 Analysis framework. GHI, global health initiative.

sources, such as the Global Fund, CEPI, the Pandemic Fund, the Global Financing Facility for Women, Children and Adolescents and the Access to COVID-19 Tools Accelerator (ACT-A) partnership, totalled US$137.2 billion across different replenishment rounds.

Different answers have been provided. As McDade and Yamey highlighted, for some commentators, there is a need to recognise the limitations of development finance and to look towards national security and/or national defence budgets.[16] Given the emphasis placed on the

Table 1 Core donors of global health funding

Country grouping	GNI, Atlas method (current US$) 2020	Share of world population	UN regular budget-assessed contributions 2020, gross (incl. WHO)	Multilateral voluntary mechanism	Multilateral partnerships	
				ACT-A in total	Gavi (2021–2025)	Global Fund (2023–2025)
G7*	47%	10%	48%	83%	69%	88%
HIC, incl. G7	63%	15%	73%	99%	66%	99%
HIC, excl. G7	17%	5%	25%	16%	30%	11%
HIC, excl. G20†	12%	4%	49%	12%	23%	9%
G20	80%	9%	80%	88%	77%	91%
G20, HIC only	51%	11%	24%	87%	76%	91%
G20, non-HIC	29%	48%	56%	1%	1%	0%
UMIC	28%	33%	25%	1%	0%	0%
LMIC	9%	43%	2%	0%	0%	0%
LIC	0.40%	9%	0%	0%	0%	0%

*G7: Group of Seven, an intergovernmental political forum consisting of Canada, France, Germany, Italy, Japan, the UK and the USA.
†G20: Group of 20, an intergovernmental forum comprising 19 countries and the European Union (EU). As of 2023, members of G20 include: Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, South Korea, Japan, Mexico, Russia, Saudi Arabia, South Africa, Turkey, the UK, the USA and the EU.
ACT-A, Access to COVID-19 Tools Accelerator; Gavi, Gavi, the Vaccine Alliance; Global Fund, Global Fund to Fight AIDS, Tuberculosis and Malaria; GNI, gross national income; HIC, high-income country; LIC, low-income country; LMIC, low-income or middle-income country; UMIC, upper middle-income country.

securitisation of global health and especially epidemics of infectious disease, there is a clear logic to this suggestion as well as clear concerns. Power relations attendant to the development system remain a prominent feature of the framing of global health, as do power relations regarding the place of health in economic and national security threats, such as those posed by pandemics.[16] The 'soft power' of global geopolitics played a role in the nature of the COVID-19 vaccine rollout, for example.[17] Ultimately, the sheer scale of the fiscal policy response to the COVID-19 crisis, which has resulted in huge budget deficits and substantially increased public debt levels,[18] combined with the likely fiscal consequences of the Russia–Ukraine war, make suggestions that economic and security budgets could provide a sustainable and transparent source of pandemic PPR financing less plausible. In such a context, turning to a strategy of leveraging country contributions with new financing instruments may appear the most sustainable option for achieving the funding goals set out by the Pandemic Fund.

The Pandemic Fund's inaugural Call for Proposals focused on disease surveillance, laboratory systems and human resources, and its Governing Board awarded $338 million in grants for 19 projects in July 2023, which covered 37 countries and would mobilise over $2 billion in additional resources, thereby generating a leverage of $6 for each $1 contributed by the fund.[19] It is important to acknowledge that, during this initial phase, not all areas outlined in its Government Framework and Operations Manual were addressed. This limitation is predominantly attributable to the available resources accessible to the Pandemic Fund at its current stage of operation. Nonetheless, there are some lessons for the Pandemic Fund to be more creative in stimulating the dynamic of various health financing instruments to enlarge the funding pool, but also to be more careful in the use of valuable public grant funding. Here, we suggest three considerations needed to guide such an approach:

First, it needs to be equitable for all contributors. Such an approach can refer to the UN's 'scales of assessments' principle of contributing according to ability but would need to include other metrics of capacity too, as well as making sure that there is flexibility and incrementality for funding commitment, while avoiding setting a maximum payment ceiling. A more democratic decision-making process for allocating fiscal burdens to different contributors is also required.[20] In some cases, the most impoverished recipient countries are, to varying extents, compelled to adhere to specific conditions in exchange for financial assistance. Alternatively, they must come to terms with the fact that decisions regarding which of 'their' challenges can be addressed are made by donors rather than by their own authorities.[21]

Second, it needs to be sustainable over time. Enabling and then ensuring the sustainability of funding over the longer term is a key issue to be reckoned with, particularly for the Pandemic Fund, which at present, does not have a clearly defined approach to replenishment. This is a potential challenge for all 'voluntarily funded' mechanisms. Using external or international funding for treatment cycles, or other long-term medical interventions, might also set expectations that create moral dilemmas for funders. Strategies here need to focus both on expanding the range of contributors and finding ways to do this at the same time as commitments from existing donors remain firm.

Third, transfer financing can be better integrated with co-financing from public sources, which includes taxation, prepaid and pooled mechanisms organised by the local government.[22] Innovative or improved taxation should be considered, such as taxes related to global health bads (eg, tobacco, alcohol and sugar), and should be combined with adapted policies and measures to increase tax compliance, reduce illicit flows and curtail tax competition among countries.[23]

A MORE INCLUSIVE GOVERNANCE STRUCTURE

The Governing Board of the Pandemic Fund, comprised of investor countries, foundations, sovereign co-investors (countries that could receive funding), civil society organisations (CSOs), non-voting members and observers, will set the overall work programme and make funding decisions.[24] The World Bank serves as the trustee and hosts the Secretariat, which includes technical staff seconded from the WHO. The Technical Advisory Panel (TAP) with a pool of up to 21 experts will provide independent advice to the board on critical gaps in pandemic PPR, funding priorities and calls for proposals, as well as reviews of proposals submitted.[25] Governance in the Pandemic Fund can be strengthened in two ways:

First, with respect to civil society. Early criticism of the fragmented, in Fidler's term anarchic,[26] structure of global health governance that has emerged in the past two decades relates to the marginalisation of key stakeholders, including CSOs.[27] As Storeng *et al* noted,[28] one of the key responses to this criticism, which was often targeted at global health public–private partnerships, was to give civil society representatives 'a seat at the 'high table''.[29] The Global Fund was the first to do so in 2002, and its Governing Board has a wide variety of representative organisations covering the main types of stakeholders active in global health, ranging from sovereign countries, UN agencies, other international organisations, philanthropic institutes, the private sector, academic institutions, as well as CSOs and people living with or affected by diseases. Yet, criticism remains of the 'rhetoric–reality gap' when it comes to the skewed nature of representation in decision-making and the contribution of CSOs beyond advocacy, fund raising and discussions around implementation. What is needed, today, is not just inclusion but what some civil society groups, for example, STOPAIDS, call for as 'meaningful inclusion' of those constituencies in decision-making processes and for community seats to be created alongside seats

representing international CSOs from the Global North and Global South.

Second, with respect to country representation. It is obvious that the governance structure of the Global Fund reflects the world at the time of its creation but not the geopolitical situation in the third decade of the 21st century. In 2002, the world was more clearly divided into donor countries in the high-income group and the IDA-eligible countries mostly located in Africa, Asia and Latin America, with some European countries included.[30] In the first decade of the Global Fund, countries like China, Turkey, Brazil, Mexico and Argentina, as well as Hungary, Poland and the Baltic countries, received the Global Fund funding, and they were all represented on the board through implementing country constituencies. When most of these countries moved into the upper middle-income country (UMIC) or even high-income country (HIC) category, however, they lost their eligibility for funding.[31] Many of these countries are now neither donors nor implementers and therefore not represented in the governance structure at all. In addition to ensuring inclusiveness for UMICs, it is also imperative to enhance the representation and voice of LMICs in the decision-making processes, even within new GHIs. In the early stages of ACT-A, there was a conceptually elevated role for a group of governments from HICs within the governance structure. However, as the governance arrangements solidified over the following year, these HIC governments no longer held their elevated positions, except as members of the Facilitation Council. LMICs only began to participate in this collaboration several months into its formation, as members of the Facilitation Council, which, as noted, held no oversight or decision-making authority.[32] Here, the Pandemic Fund as a new institution could seize the opportunity and strengthen the inclusiveness of the governance structure, enhancing the representation of new emerging actors and promoting a greater diversity of perspectives and more capacity for critical reflection.[33]

In this context, it is worth noting that the role of the UMICs and of some HICs that do not consider themselves part of the traditional donor group needs to be reconfigured in the governance of GHIs.[34] Most of those countries have graduated from the ranks of implementing countries and have the potential to contribute in terms of financial resources and technical assistance. The Pandemic Fund has already attracted some middle-income countries (MICs) as investors but may find difficulty in accommodating a larger number of MICs as the governance structure is still based on a prior categorisation of sovereigns into the dichotomy of a donor–recipient model. MICs and emerging economies have become more active in international development and cooperation at the regional and global level and have gained influence among other implementing countries by playing multiple roles as funders, coordinators, technical assistance, public goods providers, etc. While they are not yet able to contribute at the level of traditional donor countries, MICs have the potential to contribute a meaningful amount.[15] As such, they need to be properly represented in the governance structure.

A more inclusive governance arrangement is critical not simply for reasons of decision-making legitimacy. The detrimental effects of inadequate inclusiveness are practical too. First, it is hard to leverage additional resources: be it from MICs, which do not 'fit' in the current governance standards, from non-contributing or minimally contributing HICs or from the private sector and CSOs that are also able and willing to contribute more in terms of funding, technical and community expertise, public goods, workforce, etc. Moreover, in the present fiscally constrained context, and with growing pressure on the international development budget in most donor countries, it will be more difficult over time to maintain the current level of funding. Another factor that cannot be ignored is the turn towards deglobalisation, in which context it becomes imperative to have broader-based and flexible financing arrangements in which collective financing of public goods provision can be de-risked.

The second problem with inadequate inclusiveness is that it might impair the objectivity of grant making and decrease the performance of the fund, while increasing the risk of fund duplication and unfilled gaps across the wider health financing landscape.

Third, there is a strong need for country ownership: the intelligence and expertise of implementing countries, the private sector and CSOs need to be fully leveraged. The Pandemic Action Network serves as a compelling example, illustrating how CSOs can empower local communities. Launched in April 2020 with the primary mission of combating the COVID-19 pandemic, the Pandemic Action Network played a pivotal role in initiating the creation and launch of the COVID-19 Action Fund for Africa (CAF-Africa) in mid-2020. CAF-Africa is a collaborative effort dedicated to safeguarding the well-being of community health workers (CHWs) who are on the frontline of the pandemic response. By 2021, CAF-Africa had achieved significant success in its mission, successfully distributing nearly 86 million pieces of personal protective equipment to nearly 500 000 CHWs and other community members in 18 countries. This example demonstrates the proactive and high-impact nature of CSOs, showcasing their ability to empower and support local communities during critical health crises.[35] Therefore, the global community should embrace the move from 'donor driven' to 'country ownership', while further adding a second pillar, alongside country ownership, that we would call 'common benefit'.[36] While in no way overlooking the role and value of official development assistance (ODA)-type arrangements in providing important public goods globally, there is a need to build the necessary institutional and infrastructural architecture of an emergent sphere of global public goods needs, and for this, the twin pillars of 'country ownership' and 'common benefit' are key and provide appropriate guardrails within which a new standard of governance

arrangement can be established. Such an approach makes it easier for all countries, including implementing countries, to contribute insights into fund allocation and programme design by leveraging their own experience and placing this alongside that of other stakeholders, such as CSOs and the private sector, contributing to the formation of tailor-made and 'learning' partnerships.

A TRANSPARENT AND HIGH-PERFORMANCE OPERATIONAL MODEL

For the Pandemic Fund, programme monitoring and evaluation and impact assessment need to be scientifically established. To exercise risk-based supervision of the programme, implementation should be discussed in detail. Due to the varied implementing entities of the Pandemic Fund, if the fund is to succeed, it will be necessary to set up an oversight mechanism to ensure consistency and transparency in reporting. Reliance on the principal recipient's statutory auditor might be the preferred option for auditing purposes, if deemed efficient and effective.[37] It will facilitate the use of harmonised financial management systems of both implementing entities and co-investors of the Pandemic Fund. Otherwise, a programme-specific auditor should be contracted.

Adopting a holistic performance and impact evaluation mechanism is also critical, and should account for both the financial and non-financial aspects.[38] Financial evaluation can be measured from different perspectives, including fund raising and allocation. In terms of fund raising, a more flexible measurement approach might be adopted that allows for the conversion of in-kind and other non-direct financial inputs into funds, adding up to the total funding volume. Parameters of financial performance evaluation should be carefully designed so that both existing and prospective donors could be motivated and the dilution of the contribution avoided.

Another critical aspect that should not be overlooked is the criteria for fund allocation. Equity must serve as the cornerstone principle to ensure that resources are directed to where they are needed most in a prompt and efficient manner. While health burdens and country-specific threats are of paramount consideration, there are other crucial factors at play, including population size, social development status and geographical considerations. As demonstrated by the outcomes of the Pandemic Fund's first round of Call for Proposals, careful attention appears to have been given to the geographical location and the income level of recipient countries. This strategy has resulted in the allocation of resources to 37 countries, encompassing all World Bank geographical regions, with a minimum of two projects assigned to each region. Approximately 30% of the grants have been directed towards projects in sub-Saharan Africa, a region with the highest demand for Pandemic Fund grants. Furthermore, more than 75% of the projects supported by the first call are located in low and lower middle-income countries.[19]

Another aspect to consider is the timeliness of fund distribution. The failure of the 'Pandemic Bond' introduced by the World Bank's Pandemic Emergency Financing Facility has yielded valuable lessons. Due to incorrect targeting of fund recipients, stringent bond payment conditions and the misalignment of key triggering conditions, the bond fell short in expediting the delivery of vital medical resources, consequently hindering its ability to effectively combat the epidemic during its early tamable stage.[39] Thus far, the Pandemic Fund appears to have avoided this pitfall.

It is also necessary to assess performance in terms of social and health impact, such as the disease burden reduction and equitable access. Nevertheless, measuring these non-financial outcomes and impacts is challenging in terms of analytical methodology, parameter and indicator sets, model building, etc. This is one reason that an economic return on investment (ROI) approach was adopted in the investment case of several replenishments of the Global Fund.[40] For example, in 2022, the Global Fund projected that by comparing the new replenishment of US$18 billion with a scenario modelled after continued disruptions caused by COVID-19, it would yield an ROI of 1:31. This ROI figure stands significantly higher than that of the sixth replenishment, potentially delivering a compelling message to donors. This could be a useful tool that allows for the estimation of disease burden averted and entails careful calculations, but other social and health criteria need to feature in measurement indices and targets as well to enable a measure of the public or social ROI.

GLOBAL PUBLIC INVESTMENT AS A VIABLE MEANS OF REALISING THESE REFORMS

In this final section, we argue that continued reform in the overall direction outlined above could best be implemented if the Pandemic Fund were to align with the principles of Global Public Investment (GPI). GPI emerges out of recent debates on the need to substantially overhaul our approach to international public finance, which relies heavily on the use of ODA for objectives and outcomes that exceed the capacity of ODA to deliver.[20 41] GPI as a policy idea has been co-created by civil society, development experts and countries. GPI envisages (ultimately) all nations as contributors and beneficiaries to international funding arrangements in a way that advances current approaches to incentives and governance away from a traditional donor–recipient (ODA) framework and towards a universal contribution framework with immediate application for meeting (presently unfunded) global public goods needs and for addressing some of the known collective action challenges around this, such as free riding.[42] In a GPI approach, all countries are meaningfully included in the governance structure, whether they are among the largest contributors or whether they participate through co-financing arrangements.[20] In other words, all countries contribute,

all benefit and all get to decide. A GPI model would, in theory, provide *additional* and *compatible* financing to global common priorities alongside existing ODA budgets and for this reason lends itself particularly well to providing a framework in which to iterate the design of the Pandemic Fund in line with each of the three points above.

A GPI approach to *financing* would mean that contributions are made on a fair share basis determined by a formula co-created by the parties to the arrangement. This ensures all countries can be included as contributors, while recognising the different capacities of countries to contribute and different ways in which they might do so. The Pandemic Fund should, from the beginning, retain the flexibility to accommodate contributing countries in its governance structure based on acceptable levels of contribution in relation to their income level, thereby avoiding the challenges other comparable funds are facing in attracting non-traditional donor countries. Second, it requires those contributions to ultimately be paid through predictable multiyear contributions. Third, it integrates closely with domestic spending: either by enabling co-financing arrangements with lower-income countries or by using ways that leverage or draw in other financing sources, such as the World Bank loans or International Monetary Fund support fixed to delivery on the fund's overarching objectives. It could conceivably include future receipts from global tax initiatives or benefits-based voluntary contributions. To this end, a GPI approach can be better integrated with regional and national spending and investment and broader reform ambitions within the global financial architecture.

A GPI approach to *governance* would tread a middle path between UN-assessed contributions (as these are calculated and applied to all member states) and the current replenishment-driven approaches to raising voluntary contributions pioneered by today's GHIs (as these are targeted, usually for good reason, at a few wealthiest nations, such as the G7 plus a few other particularly generous donors). Building on the steps forward that GHIs, such as the Global Fund, have taken in the direction of incorporating recipient country constituencies and civil society in their decision-making structures, a GPI approach to governance would create multiple constituencies of similarly positioned and contributing countries out of the wider pool of all countries meeting a fair share-type allocation, and from which individual countries would be chosen to represent their constituency on a governing board. Adopting GPI principles within the Pandemic Fund would thereby combine equity with decision-making agility and representativeness. It would also make permanent seats available for CSOs and communities to ensure bottom-up accountability and inclusivity within global structures.

A GPI approach to *implementation and operational procedures* would mean taking the 'public' in GPI seriously by, for example, the use of public interest conditionality in grants disbursed by the fund (as proposed in other contexts by Mariana Mazzucato).[43 44] The quality of public outcomes could be factored into the prioritisation process that the board would agree on and assign to the technical advisory group in its ranking of funding proposals and built into evaluation metrics. It is critical that a commitment to meaningful co-creation is upheld in determining how best to apply the principles of GPI in any given fund. In such ways, GPI can be understood as not only a framework for risk management, but also a way of upholding public interest guardrails that can ensure, from the moment funds are committed, that investment outcomes are tied to a meaningful and shared public return, including equity of access, and to lock in concrete and legally binding commitments from countries in advance of a future pandemic event. This could be achieved by developing the use of Country Coordinating Mechanisms, based on the Global Fund model but designed in such a way that identifies public vulnerability and needs and pre-liaises (through a separate process) on how meeting these needs is best coordinated regionally and globally.

CONCLUSION

The Pandemic Fund, together with its key stakeholders (including the G20, World Bank, WHO, philanthropic organisations and founding donor countries), emerged through a 'champion' approach that has redefined the operational mode of contemporary GHIs. But there is scope for incorporating greater country voice and ownership in this process as the fund continues to evolve to fill a critical niche in international financing for pandemic PPR. It is desirable to explore the potential to enable greater collaboration and coordination among existing and new global health partnerships to maximise the impact of the investment. The Wellcome Trust-sponsored Future of Global Health Initiatives process is intended to provide further insights into how funding and implementing agencies in the global health landscape may better cooperate in the future. However, all GHIs will need to find new ways to raise contributions from a larger base of countries. Governance and financing mechanisms will be critical issues in determining their ability to do so, and the principles of GPI may apply to facilitate the process. To make a difference, the Pandemic Fund should be forward-looking, resilient and agile, with multichannel funding sources that can enable holistic solutions to addressing global health challenges. We argue that the Pandemic Fund needs to introduce new building blocks and 21st century approaches to international public finance and uphold the following guidelines in its configuration:

- Embracing inclusive governance with a broad representation of multistakeholders as a result of co-creation and shared accountability.
- Employing diverse financing models that could exploit the unique strengths of a GPI approach, including a broader base of country contributors,

alongside non-government donors, the private sector and other stakeholders.
- Underscoring the effectiveness and impact of programming, strengthening coordination and interactions with related stakeholders, and public safeguards.

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