

A Europa no Mundo Circa 2030

Europe In The World Circa 2030

Vitor Gaspar and David Amaglobeli

Abstract—Este artigo irá examinar como várias dinâmicas evolutivas subjacentes irão moldar a economia global, a partir de uma perspectiva europeia. O artigo discutirá também algumas áreas de cooperação multilateral centradas nas alterações climáticas, na preparação para pandemias, e no desenvolvimento sustentável. Numa época de tensões geopolíticas acrescidas, a cooperação internacional é fundamental para evitar a fragmentação e o agravamento da instabilidade na economia global.

Palavras-Chave — Europa; Cooperação global; Alterações climáticas; Desenvolvimento sustentável; Preparação para pandemias.

Abstract—This article will examine how several underlying evolutionary dynamics will shape the global economy, from a European perspective. The article will also discuss some areas of multilateral cooperation focusing on climate change, the pandemic preparedness, and sustainable development. At a time of heightened geopolitical tensions, international cooperation is key to avoid fragmentation and aggravating instability in the global economy.

Keywords — Europe; Global cooperation; Climate change; Sustainable Development; Pandemic preparedness.

Submitted—10-11-2022. **Accepted**—24-11-2022.



Vitor Gaspar and David Amaglobeli from Fiscal Affairs Department at the International Monetary Fund. Their email addresses are: vgaspar@imf.org and damaglobeli@imf.org. The views expressed in this paper are those of the authors and do not necessarily represent the views of the IMF, its Executive Board, or IMF management. The authors would like to thank Maureen Burke, Paolo Mauro, James Roaf, Abdel Senhadji, Genet Zinabou, and an anonymous referee, for their helpful comments and suggestions. Virat Singh provided outstanding research assistance. The views expressed in this paper are those of the authors and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

-
- **Vitor Gaspar and David Amaglobeli.**

1 Introduction

As the world economy is experiencing shock after shock, multilateral cooperation is urgently needed to tackle numerous problems requiring collective action on a global scale. Pandemic management and prevention, climate change, poverty, food and energy security, debt and development in low-income countries are a few examples. More cooperation between all countries, especially the largest, is crucial to avoid the specter of fragmentation. Such international cooperation is even more warranted because there is not a single natural "hegemon" - following Charles Kindleberger - who can stabilize the international economic system (especially) in times of stress or crises. When in 1929 "the British could not and the United States would not" act as a lender and consumer of last resort, the world economy ended in a deep and protracted depression (Kindleberger 2013).

Confronting these formidable challenges together is in the best interest of all countries. Future pandemics may be unavoidable, but the risks and costs can be reduced through joint efforts by countries and organizations. The WHO provides a platform for cooperation between governments to prevent and manage future pandemics among other health objectives. Given that epidemics can impose significant economic and financial costs on affected countries closer collaboration between the WHO, on one hand, and multilateral financial institutions, such as the IMF and the World Bank, on the other hand, is crucial. Cooperation between countries to support development objectives in developing countries is crucial for a more stable and socially cohesive world. With about 60 percent of the world population projected to live in today's low and lower-middle income countries by 2050 (compared with 52 percent today), developed countries and international organizations should provide support to these countries in achieving the Sustainable Development Goals (SDGs). Finally, no country can combat climate change on its own. Global cooperation is required. Such cooperation needs to create incentives for countries at various development stages to exceed their climate objectives, which is necessary to limit the rise in temperature

well below 2.°C (as agreed in Paris, in 2015).

Unfortunately, the temptation to free ride and risks to such cooperation have become stronger. If history is any guide, the global economy prospered when the international community agreed on the rules for cooperation and set up a system of multilateral institutions to aid the implementation of those rules. Recognizing the benefits of international cooperation is crucial. Unfortunately, developments in the last few years, such as COVID-19 and Russia's invasion of Ukraine, have created risks of polarization and division, which need to be overcome. The European Union (EU), as one of the major economic powers in the world, can play a crucial role in promoting the common agenda and effectively facilitating international cooperation. In this paper we briefly review the experience of international cooperation and its benefits and focus on three key areas in which global cooperation is needed going forward: pandemic preparedness, SDGs and combating climate change.¹

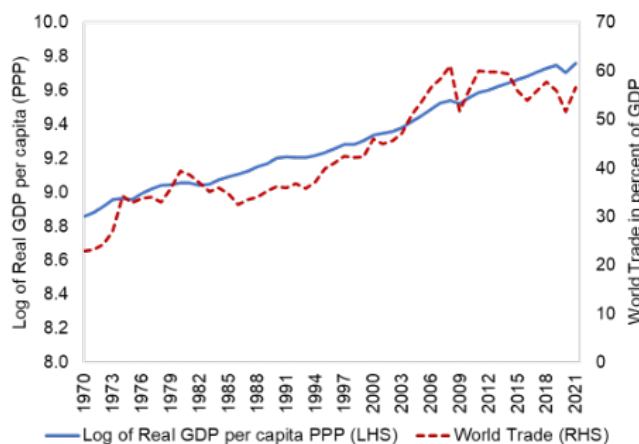
2 Benefits of and Risks to Global Cooperation

The establishment of the Bretton Woods institutions in 1944 marked the beginning of a new era of multilateral cooperation. The key objective of the new institutions - the International Monetary Fund and the World Bank - was to rebuild the shattered global economy after the disastrous effects of the Second World War by promoting international economic cooperation and development among the participating nations. Later, in 1947, the agreement was reached to create the General Agreement for Tariffs and Trade (GATT), the predecessor of the World Trade Organization (WTO). The creation of the new post-war economic order was truly an international effort-involving countries from all parts of the world including the Western countries such as the United States and the United Kingdom, and other global players like China, India, and

1. Combating climate change is one of SDGs (SDG 13) but we single it out given the existential threat presented by climate change to the world.

the Soviet Union. Stability and structure provided by the new global order has helped many countries to grow their economies as economic interconnectedness increased. The share of international trade in percent of the global GDP rose 2.5-times in the period between 1970 and 2021 (Figure 1). Real average world per capita as well as GDP per capita of the European Union also increased by about 2.5 times. Concurrently, the share of the world population living in extreme poverty declined. Following the successful launch of new institutions of global economic governance other crucial international organizations, such as the World Health Organization (WHO) and the Food and Agriculture Organization (FAO) were created.

Figure 1: World Trade and Global per capita GDP



Source: World Bank.

Russia's invasion of Ukraine is threatening to upend the system of global economic cooperation and fragment the world into us-versus-them blocs. The war and the policies adopted by a number of developed country governments and firms against the aggressor have resulted in colossal human losses, triggered the largest population displacement since the Second World War and disrupted global trade and financial flows.² Russia is a major exporter of

2. Sanctions against Russia have been progressively instituted since 2014 after its illegal annexation of Crimea. Sanctions expanded massively in 2022 following the Russian military aggression against Ukraine.

oil and gas products, grains, fertilizer, and other key commodities and has a much larger footprint in the global economy than other countries that had been under sanctions in previous historical episodes, such as Iran, South Africa, or Venezuela. Therefore, the impact on the rest of the world is much more profound. The fighting has also disrupted trade routes in the Black Sea limiting Ukraine's ability to export grains, sunflower oils, and other goods from its seaports. Isolation of Russia from the international financial system (especially the exclusion of several Russian banks from the SWIFT system in March 2022) and from trade have prompted some redirection of Russian trade and financial flows. For example, bilateral trade between Russia, on the one hand, and China and India, on the other hand, has been growing during 2022.³ The trade between Russia and China and India is increasingly denominated in local currencies.

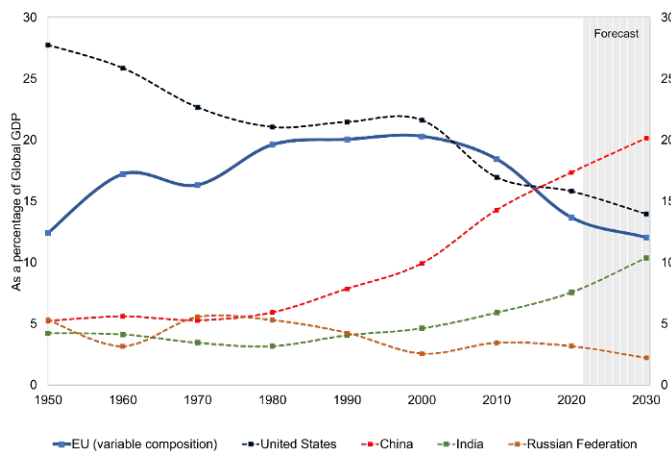
The global power balance is also changing as China has emerged as a major global economic player. The rise of China has been impressive since the 1980s. During most of twentieth century, including at the time when the key multilateral institutions were created, the United States was a dominant world economic power (Figure 2). Shortly after the recovery from the WWII, Europe restored some of its former economic might through its own regional cooperation. As Jean Monnet observed in 1954 "Our countries have become too small for the present day world, for the scale of modern technology and of America and Russia today, or China and India tomorrow."⁴ Even so, in purchasing power parity (PPP) dollar terms, the weight of the EU (after accounting for the expansion of its membership and for Brexit) in the global economy has been consistently declining since the 1960s because of the rapid growth of the Chinese and Indian economies. China, in particular, has more than tripled its PPP GDP weight in the global

3. According to calculations by Reuters (based on Chinese customs data) year on year growth in Chinese exports to Russia stood at nearly 27 percent in August 2022 while Chinese imports from Russia were at 59 percent.

4. The statement was made on November 9, 1954 and is reproduced in his *Memoirs: the Architect and Master Builder of the European Economic Community*, New York, Doubleday, 1978.

economy and now exceeds that of the United States. Meanwhile, Russia (Soviet Union before its independence), a country with the largest land mass in the world, has been losing its weight in the global economy in PPP terms and is projected to continue its decline partly as a result of its declining population.⁵

Figure 2: Global GDP Weights of Real GDP (in percent of global GDP, 2011 purchasing power parity dollars)



Sources: Maddison Database Project 2019; IMF WEO; and the authors calculations.

Note: Each datapoint corresponds to a 10-year average for each country/group in the global economy. The variable used is real GDP in 2011 US dollars. Projections are based on extrapolations of the Maddison data assuming real GDP growth rates from the IMF World Economic Outlook (WEO) database (April 2022 vintage). Beyond 2027 (the terminal year of the IMF WEO projections extrapolation is done using the growth projection for 2027).

3 Strengthening Pandemic Preparedness

If there is one main lesson to draw from COVID-19 it is that strengthening international cooperation for pandemic preparedness is crucial. The effects of the COVID-19 pandemic have been catastrophic. The officially

5. The population of Russia started declining in the 1990s. The turning-point is well before the corresponding point for Japan (normally referred as the paradigm of early demographic transition). See United Nations, Department of Economic and Social Affairs, Population Division, Population Projections.

reported figures put the global death toll at nearly 7 million. Credible estimates by independent researchers are much higher, at 17.2 million as of May 31, 2022 (Sachs and others, 2022).⁶ The difference between the reported and estimated numbers results from the fact that more than 100 countries do not collect reliable statistics on expected or actual deaths, or do not release them in a timely manner (Adam 2022). In addition to the staggering human toll, the pandemic has resulted in massive economic losses estimated to be close to \$13.8 trillion through 2024 relative to pre-pandemic forecasts (Gopinath 2022). These estimates could have been significantly higher if not for the extraordinary work of scientists to develop vaccines at neck-breaking speed, and the swift policy responses across the world.

Even before COVID-19 outbreak it was evident that pandemic preparedness should have become one of the top priorities for the global community. The history of emerging or re-emerging infectious disease pandemics shows that the frequency of pandemics has increased significantly (Ross and others 2016). The rise in the frequency of emerging infectious diseases is largely associated with demographic changes and the increased world population density (Jones and others 2008). There have been several major epidemics (both established and emerging) since 2000 (Figure 3).⁷ In the last 15 years alone six public health emergencies of international concern have been declared by the WHO (Wilder-Smith and Osman 2020). Nonetheless, despite major advances in medical sciences global preparedness has not been adequate. For example, the Ebola outbreak in 2014 exposed weaknesses in the identification of community outbreaks, limited capacity of local health systems, poor communication

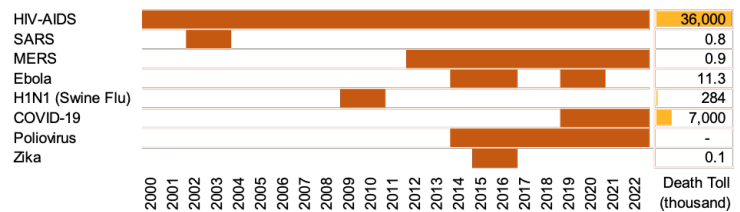
6. The Economist excess deaths model available at, https://ourworldindata.org/grapher/excess-deaths-cumulative-economist-single-entity?country=-OWID_WRL, puts the total deaths estimate at 21 million.

7. Established infectious diseases are those that have been prevalent for a sufficient period of time to allow for a relatively stable and predictable level of morbidity and mortality. Emerging diseases include newly emerging diseases i.e., diseases that are recognized in the human host for the first time and re-emerging diseases that historically have infected humans but continue to reappear either in new locations or in resistant forms or reappear after apparent control or elimination or under unusual circumstances (Fauci and Morens 2012).

between response teams and the population, and the slow and poorly coordinated international response (Sands and others 2016).

The international community should recognize that investing in pandemic preparedness helps address a systemic risk to the global economy. All nations need to mobilize additional financing to invest in strengthening their capacity to fight the next pandemic. It is crucial that as countries upgrade their systems, they let themselves be guided by International Health Regulations, which provide an overarching legal framework for handling public health events and emergencies. Such investments in health systems can reduce the probability of future pandemics occurring and the costs (both human and economic) associated with the fight against them. Moreover, these investments can also help tackle other long-standing infectious diseases, such as HIV/AIDS and Malaria. Eradication of smallpox in the 1970s - an endemic disease of 20th century - was an outstanding practical achievement and was possible owing to international cooperation in public health and investments in vaccination programs and information and knowledge sharing (Cooper and others 1989). The total annual financing needs for investing in the strengthening pandemic prevention and preparedness is estimated at US\$ 31.1 billion, which implies additional financing needs of US\$ 10.5 billion after considering current and expected domestic and international financing (G20 2022a). Many emerging and developing economies will not be able to mobilize substantial additional financing needed. Therefore, the cooperation among all key stakeholders, such as national governments, multilateral and specialized institutions, and the private sector will be needed to scale up financing for pandemic preparedness. In addition, a new dedicated multilateral financing mechanism has been proposed to signal the importance of pandemic preparedness, sustain global attention in inter-pandemic years and mobilize and deliver additional resources (G20 2022b).

Figure 3: Major Epidemics, 2000-2022



Source: various sources.

4 Achieving Sustainable Development Goals

Even prior to the pandemic many low-income developing countries faced colossal challenges to reach the SDGs by 2030. Delivering on SDGs in the areas of primary physical infrastructure (roads, electricity, and water and sanitation) and in the social sector (health and education) was estimated at 15 percent of GDP in low-income developing countries and 4 percent of GDP in emerging market economies prior to the pandemic (Gaspar and others 2019). Most emerging market economies could finance the additional spending to achieve the SDGs by raising tax revenues through major, sustained efforts to strengthen tax capacity. In low-income developing countries, however, the magnitude of required additional spending implies that an ambitious but realistic increase in tax revenues could potentially finance only one-third of the total additional spending. Improving efficiency through better economic management together with enhanced transparency and governance could also allow governments to achieve more with less. Estimates suggest that about one-half of the spending on public investment in developing countries is wasted (Schwartz and others, 2020). Strengthening the institutional framework through better governance and a more robust regulatory environment would help catalyze additional private investment. For countries in Sub-Saharan Africa, for example, increasing spending efficiency could yield 21/2 percent of GDP in savings (Desruelle, Razafimahefa, and Sancak 2019) while the private sector, both domestic and international, could bring an additional 3 percent of GDP over the

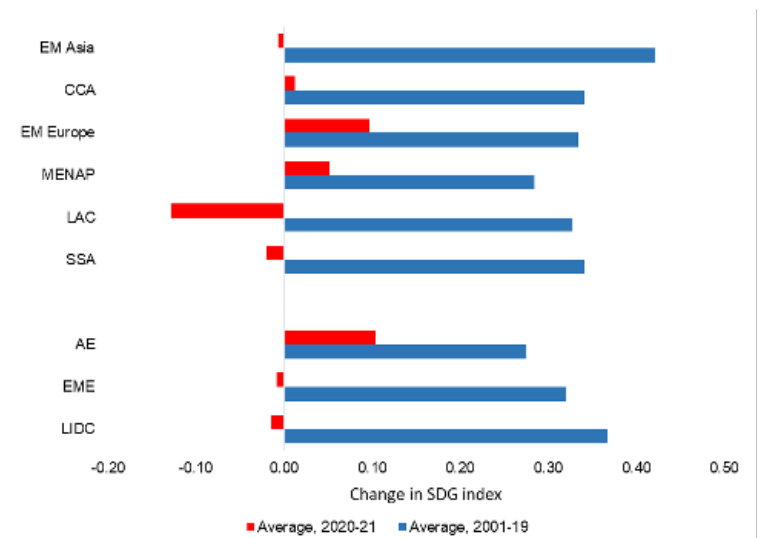
next decade (Eyraud and others 2021). Even with these efforts, a sizable financing gap would remain, which in many countries could potentially be financed through support from international partners by stepping up efforts to increase Official Development Assistance (ODA) to meet the target of 0.7 percent of aggregate DAC GNI.

The pandemic first and then the war in Ukraine were major setbacks for the achievement of the SDGs by 2030. The pandemic has markedly slowed down the progress toward achieving SDGs, especially in Latin America and the Caribbean and in Sub Saharan Africa (Figure 4). The pandemic has also substantially raised the financing needs to reach the SDGs. In the five key development areas - education, health, roads, electricity, and water and sanitation - the financing needs for four case study countries increased by about 21/2 percentage points of GDP (Benedek and others 2021). The pandemic also affected other SDGs. For example, the number of people living in extreme poverty is estimated to have increased by 124 million to 779 million in 2020, implying a global poverty rate of 10 percent, which is 1.9 percentage points higher than forecasted for 2020 before the onset of the pandemic (World Bank 2022). The war in Ukraine has brought about further challenges to ambitions of reaching various SDGs. In addition to devastating effects to Ukraine itself, the war is having a profound impact on global food security, making the achievement of the SDG2 on ending hunger by 2030 significantly more challenging.⁸ Moreover, higher food prices are hurting the poor the most as food normally represents a higher share in the consumption basket of lower-income households. The eventual poverty impact could be substantial. For example, the 2010-11 food price spike raised the number of the worlds poor by an estimated 8.3 million (Ha, Kose and Ohnsorge 2019). The confluence of factors, such as the pandemic, climate change, and the war in Ukraine, suggest that the risk of famine today is much higher than it has been for many decades (Alfani and O Grada, 2022). These multiple crises have jeopardized meeting the agenda for SDGs by 2030

8. The SDG2 is on ending hunger, achieving food security and improving nutrition and promoting sustainable agriculture.

(United Nations, 2022).

Figure 4: Annual Change in SDG Index Scores*



Sources: Sustainable Development Report; and authors' calculations.

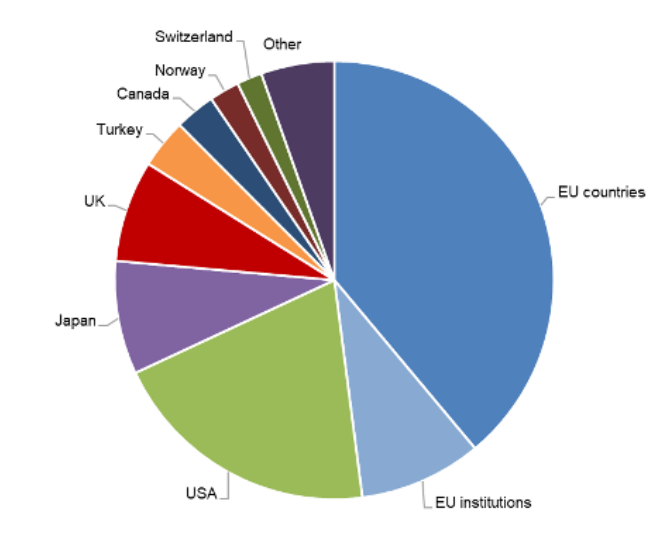
Note: AEs Advanced Economies; EME Emerging Market Economies; LIDC Low-Income Development Countries; CCA Caucasus and Central Asia; MENAP Middle East, North Africa, and Pakistan; LAC Latin America and Caribbean; SSA Sub Saharan Africa.

The SDG Index is an assessment of each country's overall performance on all SDGs. The score ranges between 0 (the worst possible outcome) and 100 (the target).

The current predicament requires a more intense global partnership to salvage the SDGs against the backdrop of recent shocks. The consequences from Russia's invasion of Ukraine necessitate that the international community stand together to provide crucial support to those most affected by the war. More than 14 million displaced individuals within and outside Ukraine, mostly across Europe, need urgent aid to support their livelihoods. Meanwhile, it is equally important that the assistance provided to the victims of the war does not crowd out support from the members of the international community to low-income countries in their efforts to meet the SDGs. The EU member states in particular, which account for nearly half of total official development assistance, should stay the course and step up their efforts in supporting countries whose development agendas have been set back by the two major shocks (Figure 5). Demonstrating the EU's steadfast support for low-income coun-

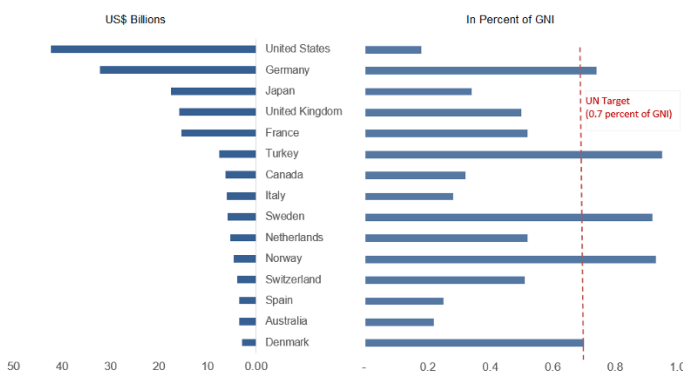
tries would also help ensure that these countries continue to view the EU, and the global community more generally, as constructive partners in their quest for economic development. Among the largest providers of official development assistance only a handful meet the 0.7 percent of GNI target set by the UN resolution adopted in 1970 (Figure 6). Meeting the 0.7 percent of gross national income target would provide about US\$230 billion in additional funding to contribute to closing development gaps (Gaspar and others 2019).

Figure 5: Official Development Assistance (percent of total)



Source: OECD, and authors calculations.

Figure 6: Official Development Assistance (percent of total)



Source: OECD, and authors calculations.

Promoting economic growth is the most effective way to rapidly achieve SDGs. Growth expands the pool of available resources for investing in SDGs creating a virtuous circle of growth and development. To accelerate growth rates, countries need to rigorously implement structural reforms that strengthen macroeconomic fundamentals, the quality of key institutions and the regulatory environment for the private sector. For a typical emerging market and developing economy, major simultaneous reforms in domestic and external finance, international trade, labor and product market regulations, and governance could raise annual economic growth by about 1 percentage point over five to ten years, doubling the current speed of income-per-capita convergence to advanced economy levels over the next decade (IMF 2019a). Doubling projected GDP per capita in 2030 would reduce additional spending needs by some 41/2 percentage points (Gaspar and others 2019). As a successful example, Vietnam managed to achieve a remarkable progress thanks to structural reforms implemented starting from the late 1980s. Being initially poorer than most of today's low-income developing countries, Vietnam managed to lift its per-capita GDP 10-fold, and as a result reduce the poverty rate (living at below \$1.90 per day) from more than 60 percent in the 1980s to below 5 percent of the population now and to become a country that ranks in the top quarter of SDG performance across emerging market economies for the majority of indicators (Baum 2020).

5 Tackling Climate Change

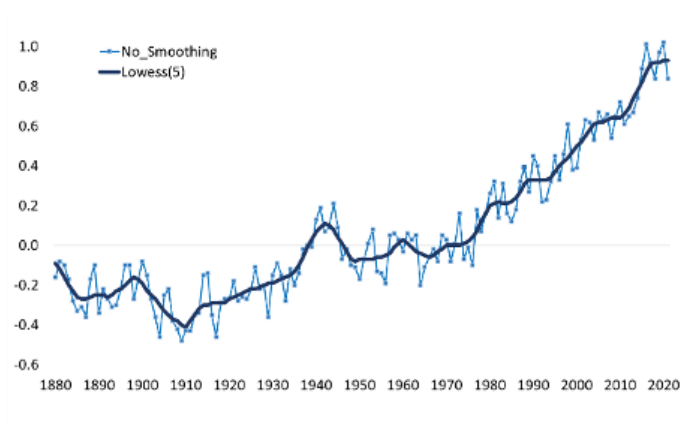
Global temperatures are rising at an alarming speed and, if unaddressed, could exceed pre-industrial levels by 3 degrees Celsius or more by the end of the century. The global annual average temperature has already increased by about 1.1°C compared with the preindustrial average. The years 2020 and 2016 were the two hottest years on record since the beginning of recordkeeping in 1880.⁹ Decade after decade average temperatures kept creeping

9. Source: NASA's Goddard Institute for Space Studies (GISS).

up (Figure 7). The increase has been greatest in the Europe and Central Asia region followed by the Middle East and North Africa and North America.

The consequences of the increase in temperatures include the rise in extreme weather events, such as heatwaves, droughts, and flooding. The frequency of such extreme weather events has accelerated over the last three decades across many geographic areas (Figure 8). In addition to their large human toll, extreme weather events bring about significant socio-economic disruption. Moreover, extreme weather events tend to affect the poor more than the rich. The poor are also most exposed to the more gradual, slow, and more pervasive environmental disasters caused by climate change (Stern 2019). Empirical evidence suggests that an increase in climate vulnerability is positively associated with rising income inequality, after controlling for economic and demographic factors (Cevik and Jalles 2019). Therefore, climate change could undermine poverty eradication efforts as it disproportionately impacts the poorest regions, and worsens income inequality within countries (World Bank 2020). Climate change may also prompt international migration.

Figure 7: Global Annual Mean Surface Air Temperature Change



Source: NASA.

Note: Land-ocean temperature change with respect to the base period of 1951-1980.

Figure 8: Frequency of Climate Related Disasters (total for each decade)



Source: The Emergency Events Database (EM-DAT), Centre for Research on the Epidemiology of Disasters (CRED) / Université catholique de Louvain (UCLouvain), Brussels, Belgium - www.emdat.be.

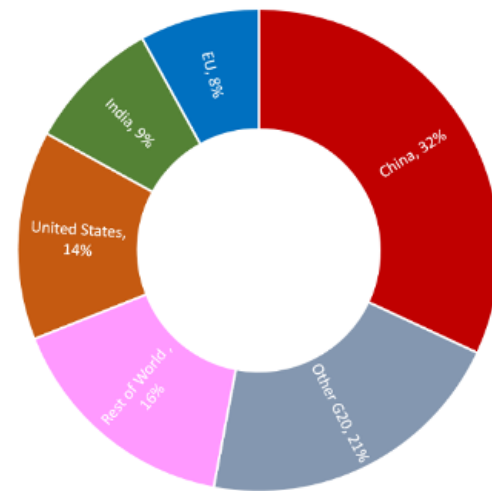
Note: Includes droughts, extreme temperatures, floods, landslides, and storms.

Given that temperature rises impact the entire globe, all countries need to invest in resilience to adapt to climate change. It is clear that even with the best mitigation efforts climate change will continue. Therefore, national adaptation plans should be developed and implemented using a three-pillar approach that focuses on (a) structural resilience by building climate-resistant infrastructure; (b) financial resilience that ensures countries have fiscal buffers to cope with disasters; and (c) post-disaster resilience requires that requires contingency planning (IMF 2019b). The costs of adaptation, especially building structural resilience, are high for low-income developing countries. Annual adaptation costs could exceed 1 percent of GDP for some developing countries and above 10 percent of GDP for some island states (Aligishiev, Bellon, and Massetti 2022). Importantly, most of these low-income countries have not significantly contributed to global warming but they face high adaptation costs against the backdrop of limited fiscal space. Therefore, there is a significant role for the international community to provide support to climate change vulnerable countries anchored in nationally developed disaster-resilience

strategies. Advanced economies should deliver on their promise to provide additional \$100 billion to developing economies in climate finance. The IMF's new policy instrument the Resilience and Sustainability Trust (RST) will provide crucial financing to eligible low-income countries to enhance their economic resilience and sustainability with a special emphasis on climate change (IMF 2022).

If adaptation policies are needed for all countries climate mitigation by large emitters matters most to avoid catastrophic effects on the planet. Recognizing that low-income countries have historically contributed less to global greenhouse gases (GHG) emissions, the international community adopted the principle of "common but differentiated responsibility and respective capabilities" to fight climate change. The top three emitting countries in the world - China, the United States, and India - are projected to account for about 55 percent of global CO₂ emissions in 2030, suggesting that a pragmatic approach among these countries could have a profound effect on the overall volume of emissions (Figure 9). The EU's contribution to the global emissions is projected to be 8 percent (one-quarter of China's contribution), while all G20 countries together account for up to 85 percent. The ultimate objective of mitigation policies, which was endorsed by 196 signatory parties in Paris in 2015, is to keep the increase in global temperature by 2100 within 1.5°C - 2.°C. Mitigating the climate and the attendant decline in extreme weather events will have a very positive long-term economic impact, especially taking into account health and productivity gains from reduced local pollution. However, the progress to date in achieving emissions reductions has been limited.

Figure 9: Shares of Countries and Regions in Global CO₂ Emissions, 2030



Source: Parry, Black and Roaf 2021

Carbon pricing is the most effective policy instruments to curb climate change.

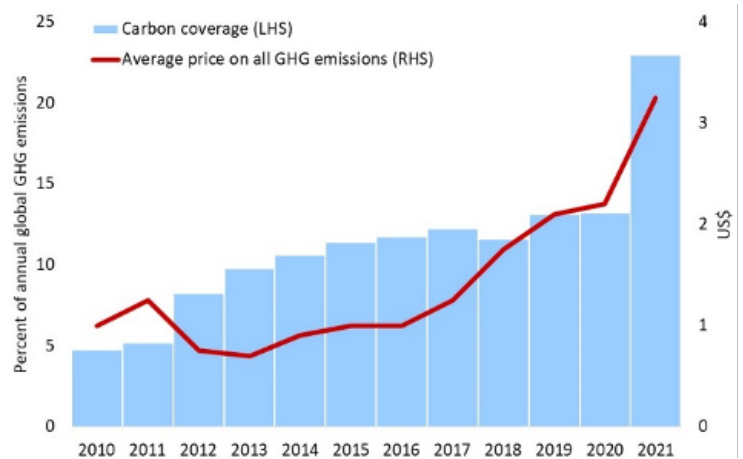
Each country would have to take measures to set carbon prices at appropriate levels to ensure the required carbon emissions reductions. To avoid a collective action problem an international carbon price floor (ICPF) has been proposed as a pragmatic solution (Parry, Black and Roaf 2021). The ICPF would be negotiated among key large emitters and focuses on the minimum price for carbon. For equity considerations, including for application of the principle of "common but differentiated responsibility and respective capabilities", the carbon price floors would be differentiated depending on countries income level. For illustration, a price floor of \$75 per ton of carbon could be adopted for advanced economies, \$50 for emerging market economies and \$25 for low-income developing countries. The ICPF with a tiered price system, appropriately designed and simultaneously adopted by countries, would likely be sufficient to achieve the target of keeping the global temperature increase within 2.°C, would have only a small impact on global economic growth and would help ensure a fairer redistribution of burden of reducing emissions across countries (Chateau, Jaumotte, and Schwerhoff 2022).

Strong global action to raise carbon pricing is urgently needed as current levels of carbon prices remain woefully low. Although

several countries, including EU members, have been aggressively raising carbon pricing, either through carbon taxes or emissions trading systems (ETS), this has not been sufficient to meaningfully raise the global average price. About four-fifths of global GHG emissions remain unpriced and the global average carbon price in 2021 was only \$3 per ton (Figure 10). The slow progress has triggered discussions in countries with high carbon prices to place charges on the carbon content of imports from low carbon price countries. However, this is a highly ineffective instrument for emissions reduction compared to the ICPF because carbon embodied in trade flows is typically less than 10 percent of countries' total emissions.

In contrast to mitigation objectives, many governments are underpricing fossil fuels, which leads to overconsumption and subsequently to faster global warming. Fossil fuel subsidies, measured as underpricing compared to the full supply and environmental costs of the fuels, stood at nearly 7 percent of GDP in 2020 (Parry, Black, and Vernon 2021). Such subsidies are particularly high in the Middle East and North Africa region and the lowest in North America (Figure 11). The size of these subsidies has very likely increased in 2021 and 2022 with the substantial rise in global energy prices. In addition to their contribution to global warming, fossil fuel subsidies lead to worsening in local air quality problems, with knock-on social and healthcare effects. Fossil fuel subsidies are also costly, poorly targeted, and crowd out other productive government spending. Reforming fossil fuel subsidies can be politically difficult but if designed appropriately such reforms can become acceptable. Subsidy reform needs to rely on a comprehensive reform plan consisting of a far-reaching communications strategy, appropriately phased energy price increases, sequenced differently across energy products, targeted mitigation measures for vulnerable households, improvements in the efficiency of state-owned enterprises, and depoliticization of energy pricing (Clements and others 2013).

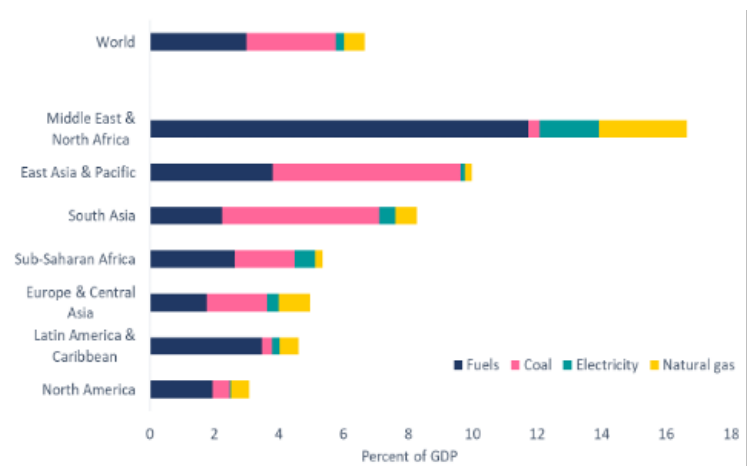
Figure 10: Carbon Pricing, Coverage and Average Price



Source: World Bank.

Note: Carbon coverage shows the share of global carbon emissions subjected to a carbon price.

Figure 11: Fossil Fuel Subsidies, 2020 (in percent of GDP)



Sources: Parry, Black and Vernon (2021); and authors calculations.

Note: Subsidies include explicit (subsidies due to supply costs being greater than the retail prices) and implicit subsidies (subsidies due to the efficient price being greater than the retail price, exclusive of any explicit subsidy).

Russia's invasion of Ukraine has put energy security at the forefront of the policy agenda for many countries creating risks for the green transition. In response to rising energy prices many countries have announced emergency measures to cushion the effects of higher prices on vulnerable households and firms. In most

cases the key objective of announced policies was to limit the pass-through of the increase in international prices to domestic consumers (Amaglobeli and others 2022). Some governments also took measures to boost local fossil fuel productions to ensure affordable access to energy. These measures are aimed at further boosting coal production to reduce reliance on imported coal (for example, China), or to sustain household consumption of coal briquettes through price subsidies (for example, Mongolia). It is crucial that the current energy price shock does not derail the world from meeting the target to limit global warming to below 2.°C and is managed in a way that is consistent with the climate ambition. Diversification of energy supplies can help accelerate the transition to green economies and strengthen energy security. Speedily increasing investments in the production of renewables and reducing dependence on fossil fuels are urgent priorities to ensure both energy security and climate change mitigation. However, in the short run, as economies grapple with supply shortages, alternative supply sources of nonrenewable energy, including, for example, enhancing markets for liquefied natural gas, and temporarily expanding production of shale oil and gas may be unavoidable.

6 Conclusion

In this paper we argue that even in today's highly interdependent but polarized world international cooperation is crucial and feasible. Effective cooperation should focus on areas where collective action is urgently needed. Cooperation in public health to eradicate smallpox in 1970s serves as an inspiring example when key global players, the United States and the Soviet Union, then rivals in the Cold War, joined forces to introduce a program under the auspices of the WHO. In today's world, strengthening pandemic preparedness, supporting low-income countries in achieving SDGs and tackling climate change are priority problems. Russia's war in Europe, the disastrous effects of the COVID-19 pandemic, derailed efforts to achieve SDGs and the increased frequency of extreme weather events should prompt countries, and especially all major players, to embrace

collaborative action for the ultimate benefit of the entire world.

The EU can act as a center of gravity for multilateral cooperation. It has a special role to play given its unique position on the global arena. In particular,

- The EU is a large and successful global player. Despite its declining weight in the global economy the EU still accounts for about 15 percent of the world GDP in PPP terms. Moreover, the EU has been successful in building an inclusive economy with its member states enjoying one of the highest levels of social protection globally.

- The EU is an example of multilateral cooperation, based on collective institutions and community law. The EU is a union of nations, peoples and citizens that has reached a deep level of international integration. The single market and the euro are its most emblematic achievements.

- The EU has established itself as a reliable partner on global arena. The EU has been forceful in taking actions in all crucial transnational areas. Over the last several decades the EU has made strong progress in reducing its greenhouse gas emissions. For many years the EU has been providing financial and technical support to low-income countries to implement necessary policies in support of SDGs. The EU has been an important actor in helping countries strengthen pandemic preparedness and has contributed considerably, for example, to increasing COVID-19 vaccine access globally.

Global cooperation is a vital priority for the EU. Its exercise of soft power requires global peaceful coexistence to deliver security and prosperity to European citizens. The EU can play a constructive role in finding practical ways forward. One good example is climate change. By 2030, the EU emissions are projected to be below those of China, the US and India. Differences in numbers are stark: 8 percent projected for the EU against 55 percent for the sum of these three countries. China alone is projected to represent almost one-third of total emissions. Nevertheless, the EU is most advanced in the use of carbon pricing. In this area, the EU could help push a comprehensive agenda that would include financing, innovation, technology transfer, and development. In such agenda, adaptation would have to be considered

together with mitigation. By playing such a role, the EU would be pushing for security and prosperity for all citizens of the world.

References

- [1] Adam, D., (2022). *The pandemics true death toll: millions more than official counts*. In Amaral, Carlos (coord). Nature, <https://www.nature.com/articles/d41586-022-00104-8>
- [2] Alfani, G., and C. O Grada. (2022). *Famine, war, and climate change: From the Middle Ages to the Russia-Ukraine War*. VoxEU, <https://cepr.org/voxeu/columns/famine-war-and-climate-change-middle-ages-russia-ukraine-war>
- [3] Aligishiev, Z., M. Bellon, and E. Massetti. (2022). *Macro-Fiscal Implications of Adaptation to Climate Change*. IMF Staff Climate Note 2022/002, International Monetary Fund, Washington, DC.
- [4] Amaglobeli, D., E. Hanedar, G. Hong, and C. Thevenot. (2022). *Fiscal Policy for Mitigating the Social Impact of High Energy and Food Prices*. IMF Notes No 2022/001.
- [5] Baum, A. (2020). *Vietnam's Development Success Story and the Unfinished SDG Agenda*. IMF working paper 2020/031
- [6] Benedek, D., E. Gemayel, A. Senhadji, and A. Tieman. (2021). *A Post-Pandemic Assessment of the Sustainable Development Goals*. IMF Staff Discussion Note 2021/003.
- [7] Cevik, S., and J. Jalles.(2022). For Whom the Bell Tolls: Climate Change and Income
- [8] Chateau, J., F. Jaumotte, and G. Schwerhof. (2022). *Economic and Environmental Benefits from International Cooperation on Climate Policies*. IMF Departmental Paper DP/2022/007.
- [9] Clements B., D. Coady, S. Fabrizio, S. Gupta, T. Alleyne and C. Sdravovich (eds.). (2013). *Energy Subsidy Reform: Lessons and Implications*. IMF book.
- [10] Cooper, R., B. Eichengreen, G. Holtham, R. Putnam, and C. Henning (eds.). (1989). *Can Nations Agree? Issues in International Economic Cooperation*. Brookings Institution Press.
- [11] Desruelle, d., I. Razafimahefa, and C. Sancak, 2019, "Sustainable development, sustainable debt: Finding the right balance", IMF conference paper.
- [12] Eyraud, L., H. Devine, A. Peralta-Alva, H. Selim, P. Sharma, and L. Wocken. (2021). *Private Finance for Development: Wishful Thinking Out of The Box?* IMF Departmental Paper, DP/21/11.
- [13] Fauci, A., and D. Morens. (2012). *The Perpetual Challenge of Infectious Diseases*. New England Journal of Medicine, 366: 454-461 (DOI: 10.1056/NEJMra1108296)
- [14] Gaspar, V., D. Amaglobeli, M. Garcia Escribano, D. Prady, and M. Soto. (2019). *Fiscal Policy and Development: Human, Social, and Physical Investments for the SDGs*. IMF Staff Discussion Notes No. 2019/003.
- [15] Gopinath, G. (2022). *A Disrupted Global Recovery*. IMF blog, January 25, 2022. <https://blogs.imf.org/2022/01/25/a-disrupted-global-recovery/>
- [16] G20. (2022a). *Analysis of Pandemic Preparedness and Response (PPR) architecture, financing needs, gaps and mechanisms*. Paper prepared by the WHO and World Bank for the G20 Joint Finance & Health Task Force, March 22, 2022.
- [17] G20. (2022b). *Financing Modalities for Pandemic Prevention, Preparedness and Response (PPR) Paper prepared by the World Bank and the World Health Organization** for the G20 Joint Finance & Health Task Force
- [18] Ha, J., A. Kose, and F. Ohnsorge.(2019). *Inflation in Emerging and Developing Economies: Evolution, Drivers and Policies*. Washington, DC: World Bank. World Bank. <https://openknowledge.worldbank.org/handle/10986/30657> License: CC BY 3.0 IGO."

- [19] International Monetary Fund (IMF). (2019a). World Economic Outlook Chapter 3, Reigniting Growth In Low-Income And Emerging Market Economies: What Role Can Structural Reforms Play? Oct 2019
- [20] (2019b). *Building Resilience in Developing Countries Vulnerable to Large Natural Disasters*. IMF Policy Paper.
- [21] (2020). *Mitigating Climate Change Growth and Distribution-Friendly Strategies*. World Economic Outlook, Chapter 3, April 2020.
- [22] (2022). *Proposal to Establish A Resilience and Sustainability Trust*. IMF Policy Paper.
- [23] Jones, K., Patel, N., Levy, M. *Global trends in emerging infectious diseases*. Nature 451, 990993 (2008). <https://doi.org/10.1038/nature06536>
- [24] Kindleberger, C., (author), B. DeLong (foreword) and B. Eichengreen (foreword). (2013). *The World in Depression, 1929-1939*. University of California Press.
- [25] Mott, G., C. Razo and R. Hamwey. (2021). *Carbon emissions anywhere threaten development everywhere*. UNCTAD.
- [26] Parry, I., S. Black, and J. Roaf. (2021). *Proposal for an International Carbon Price Floor among Large Emitters*. IMF Staff Climate Notes 2021/001, International Monetary Fund, Washington, DC.
- [27] Parry, I., S. Black, and N. Vernon. (2021). *Still Not Getting Energy Prices Right: A Global and Country Update of Fossil Fuel Subsidies*. Working Paper No. 2021/236.
- [28] Ross, A., S. Crowe, M. Tyndall. (2016). *Planning for the Next Global Pandemic*. International Journal of Infectious Diseases, Volume 38, September 2015.
- [29] Sachs, J., S. Abdool Karim, L. Akinin, J. Allen, K. Brosbøl, F. Colombo, G. Cuevas Barron, M. Fernanda Espinosa, V. Gaspar, A. Gaviria, A. Haines, P. J Hotez, P. Koundouri, F. Larraín Bascañán et al.. (2022). *The Lancet Commission on lessons for the future from the COVID-19 pandemic*. The Lancet, Elsevier, DOI: [https://doi.org/10.1016/S0140-6736\(22\)01585-9](https://doi.org/10.1016/S0140-6736(22)01585-9)
- [30] Sands, P., C. Mundaca-Shah and V. Dzau. (2016). *The Neglected Dimension of Global Security A Framework for Countering Infectious-Disease Crises*. The New England Journal of Medicine, 374:1281-1287.
- [31] Schwartz, G., M. Fouad, T. Hansen, and G. Verdier, eds. (2020). *Well Spent: How Strong Infrastructure Governance Can End Waste in Public Investment*. Washington, DC: International Monetary Fund.
- [32] Stern, N. (2019). *Poverty and Climate Change*. in the book *Measuring Poverty around the World* by Anthony Atkinson, Princeton University Press.
- [33] United Nations. (2022). *The Sustainable Development Goals Report*.
- [34] Wilder-Smith, A. and S. Osman. (2020). *Public health emergencies of international concern: a historic overview*. J Travel Med. 27(8): taaa227. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7798963/>
- [35] World Bank. (2020). *Poverty and Shared Prosperity 2020: Reversals of Fortune*. Washington, DC World Bank. doi: 10.1596/978-1-4648-1602-4.
- [36] World Bank. (2022). *Poverty and Shared Prosperity Report: Toward Inclusive Recovery*. Washington, DC: World Bank.



A Portuguese national **Vitor Gaspar** is Director of the Fiscal Affairs Department of the International Monetary Fund. Prior to joining the IMF, he held a variety of senior policy positions in Banco de Portugal, including most recently as Special Adviser. He served as Minister of State and Finance of Portugal during 2011-13. He was head of the European Commissions Bureau of European

Policy Advisers during 2007-10 and director-general of research at the European Central Bank during 1998-2004. Mr. Gaspar holds a Ph.D. and a post-doctoral agregado in Economics from Universidade Nova de Lisboa; he also studied at Universidade Católica Portuguesa.

ORCID: <https://orcid.org/0000-0002-9659-2914>



David Amaglobeli is a Deputy Division Chief in Fiscal Affairs Department. Previously he was an assistant to the director in Fiscal Affairs Department. Prior to that he has worked on intense surveillance country cases and on the design and review of IMF-supported programs in several crisis countries. Before joining the IMF in November 2009, he held several positions in his native

Georgia, notably as acting governor of the National Bank of Georgia, and deputy minister of finance.

ORCID: <https://orcid.org/0000-0002-7258-9235>