Equity in the Fight Against Covid-19:
The Benefits to Germany from a Global Approach

COMMISSIONED BY THE BILL & MELINDA GATES FOUNDATION

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Executive summary

- Eurasia Group's analysis suggests that leaving low- and lower-middle-income countries, or LLMICs (see appendix for full country list), to fend for themselves amid the Covid-19 pandemic will cause significant economic damage that puts at risk decades of economic progress.
- The Access to Covid-19 Tools Accelerator (Act-A) program is the only "end-to-end," complete global solution across tests, treatments, and vaccines for tackling the pandemic. The world needs strong leadership and international cooperation to make this program a success. The Act-A program needs $38 billion, of which $28.2 billion is still currently outstanding.
- Rapid, widespread, and equitable vaccination, tests, and treatments will save countless lives in LLMICs, allowing policymakers' focus to return to the core development goals of raising living standards, empowering women, and marginalized communities, and strengthening institutions.
- Equitable approaches to fighting Covid-19 have a clear health and moral case, and Germany has already made sizable contributions in support of these outcomes. Our analysis suggests this approach is not only the right thing to do but the smart thing to do for Germany.
- Analysis suggests that leaving LLMICs to fend for themselves amid the Covid-19 pandemic will create significant economic damage in these countries, with major implications for growth, and putting at risk decades of global progress. This economic damage will also be felt in Germany.
- However, drastic changes in economic outcomes are possible by helping to achieve better virus outcomes. The benefits to the German economy from supporting LLMICs are estimated to be in the range of €2.7 billion ($3 billion) in 2020-21 alone, with the majority coming from lost manufacturing exports. Over the next five years, this sum is expected to rise to €8.1 billion ($9 billion).
- The geopolitical context provides further weight to the self-interested case. At a critical juncture for the international political and economic system, the need for strengthened multilateral approaches to today's biggest global challenge is of pivotal importance.

Introduction

Helping the rest of the world is essential to Germany's economic and political interests. As a leader in international and European affairs, Germany has a strong incentive to continue to support the Access to Covid-19 Tools Accelerator ("Act-A") program. The program takes a multilateral approach to promote health and prosperity in developing countries struggling to combat Covid-19. At a time when the international order is under threat from numerous angles, Act-A is the best approach to tackling a global challenge while simultaneously ensuring that Germany's international partnerships can continue to thrive. Supporting Act-A and encouraging other governments to join will further demonstrate Germany's commitment to development assistance and ensure that no country is left behind in the fight against the virus.

What is Act-A?
Act-A is the only end-to-end global solution that aims for equitable access, building on its public health expertise and offering risk mitigation for the investment made. It achieves this through four focal points: 1) vaccine risk pooling, to increase each country's chances of having access to the "winning candidate"; 2) limiting operational risk by bringing together the best global expertise across fields; 3) providing an end-to-end solution across tests, treatments, and vaccines; and 4) focusing on equitable access to ensure that Covid-19 tools will be delivered in the most efficient way to those who need them the most, restarting all economies and protecting international mobility, trade, and economic activity.

An equitable approach takes into consideration public health, ethics, global economic risk, and political realities. Not only will joining Act-A bolster Germany's role as a world leader and pioneer in public health; there are also clear economic benefits for the country. This paper seeks to demonstrate in both quantitative and qualitative terms that there is a clear self-interested case for Germany's commitment to the program.

The focus of the analysis is on Germany and Act-A's support for LLMICs—in particular, through the Gavi Covax Advance Market Commitment (AMC), which will help to ensure that developing countries get equitable access to a vaccine for Covid-19. The results suggest that Germany's aid will help reduce deaths, meaningfully improve people's lives, and more than pay for itself through better economic outcomes in countries with which Germany has extensive trade and investment ties.

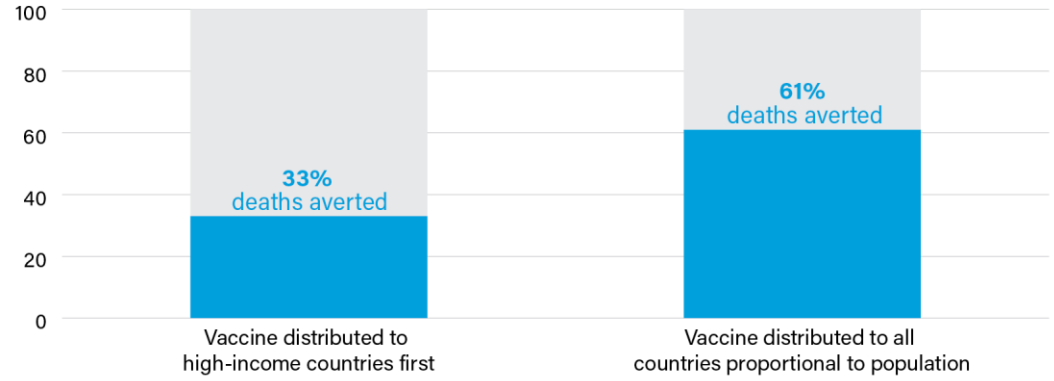
The following sections focus on three main areas:

- Impact of equitable approaches
- Economic benefits to Germany
- Geopolitical advantages for Germany

Impact of equitable approaches

Given the speed of Covid-19's spread, equitable approaches to vaccine distribution and the capacity to test for and treat new cases is critical to stopping the pandemic. Epidemiological modeling suggests that fairly distributed and widespread vaccination could greatly reduce the loss of life. Northeastern University's Laboratory for the Modeling of Biological and Socio-technical Systems has run counterfactual scenarios examining what would have happened if a vaccine had been available starting in mid-March 2020. In the first scenario, approximately 50 high-income countries received the first 2 billion doses (out of 3 billion) of an 80% effective vaccine. In the other scenario, all countries received 3 billion doses in proportion to their populations. These simulations showed that equitable distribution would avert 61% of deaths from Covid-19, compared to just 33% that would be averted with distribution to high-income countries first. In practice, this equates to tens of thousands of lives that can be saved with Germany's support.

Modeled percentage of deaths (compared to no vaccine)*



*Bill & Melinda Gates Foundation, 2020 Goalkeeper's Report

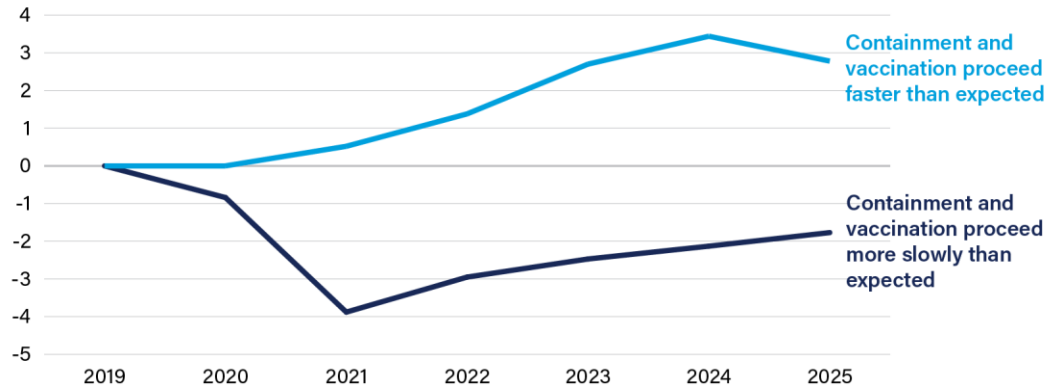
Taking this global approach is in the interest of all countries from a domestic health perspective alone—the progression of the pandemic thus far makes clear that it will not be fully solved anywhere until it is solved everywhere. Countries that have successfully curbed their outbreaks cannot return to normal because of the need for travel restrictions and depressed demand in key export markets. Even in the event of strict isolation, cases still arise, including through the importation of new cases. For Germany, taking a global approach is the best way to reduce risk both abroad and at home.

The coronavirus has had significant effects on all countries, but the situation among LLMICs is especially concerning. Even though many LLMICs closed their borders and introduced stringent lockdown measures, large populations in developing countries live in crowded conditions and work in the informal sector, making social distancing and other public policy interventions difficult to sustain. Conditions in South Asian megacities, refugee camps in the Middle East and Southeast Asia, and war-torn regions of Africa have introduced the additional issue of sanitation and clean water, which makes it even more challenging to reduce the spread of the virus. Moreover, healthcare facilities in LLMICs have been overwhelmed by patients with Covid-19. Generally, LLMICs have fewer hospital beds than higher-income countries and often suffer from shortages of resources such as ventilators, personal protective equipment, specialized physicians, and other necessities for treating critically ill patients.

The economic challenges associated with Covid-19 raise the real possibility of negating decades of poverty reduction and other improvements of quality of life in LLMICs, effectively canceling out the impact of aid contributions already made by Germany. In its latest forecasts, the IMF projects that low-income economies will contract by 1.2% in real terms in 2020, followed by a 4.9% rebound in 2021. However, the IMF acknowledges that emerging markets' trajectories could diverge sharply from its baseline forecasts depending on epidemiological developments. A best-case scenario, which would be more likely if a vaccine were distributed fairly, could see emerging-market real GDP climb to 0.5% above the Fund's base case by the end of 2021. Conversely, slower and less effective

response to Covid-19 could pull emerging-market real GDP down by nearly 4% from the IMF's baseline (please see graph highlighting divergence from IMF baseline forecasts in each scenario). The difference in outcomes between best- and worst-case scenarios is a gaping 4.5% over two years, or the equivalent of billions of dollars, driven largely by differences in virus outcomes.

Emerging markets real GDP, difference to baseline forecast by scenario (%)



Note: Forecasts for emerging markets, not low and lower middle-income countries specifically
Source: IMF Global Economic Update.

It is clear, therefore, that assisting with virus recovery in developing countries is highly impactful in altering health and economic outcomes. The ACT-A program offers the only true multilateral plan to accomplish this.

Economic benefits to Germany

Addressing the pandemic is critical to rebuilding the global economy, already significantly damaged, with global real GDP forecast to contract by 4.9% this year, according to the IMF. As is the case with the public health challenge of Covid-19, the problem cannot be solved anywhere without addressing it everywhere, and this is particularly true for Germany. With a high degree of trade openness, Germany is one of the G7 economies most affected by major shocks to global demand.

So far, Germany has taken robust action to backstop the economy through stimulus measures, introducing two supplementary budgets that amass a total of €508.5 billion to defend incomes and livelihoods. However, domestic approaches alone cannot fully resolve the economic challenge for Germany given its level of global exposure.

While LLMICs are not the country's biggest trade partners, they import tens of billions of German goods and services each year, send thousands of paying students to universities and spend billions of euros on tourist visits to Germany. Lack of access to a vaccine and other tools to fight Covid-19 among LLMICs would mean continued travel restrictions and dampened demand, threatening Germany's economic recovery. This has clear implications for flagship German firms that will not see their prospects meaningfully improve until the world can return to normalcy. For instance, Lufthansa, a critical player in global travel, will be forced to operate under severe constraints and at considerable financial risk until travel restrictions can be fully lifted. The economic effects of Covid-19 thus threaten both Germany's largest companies and the jobs and investments that they support.

With the global trading system already under threat, reinforcing the capacity of fast-growing LLMICs to trade globally is even more important. This approach will help the recovery of global commerce at a time when it is most needed, as well as help German manufacturers and exporters. When viewed as a necessary part of the domestic economic recovery, Germany's share of the global costs of ACT-A can be seen as a highly cost-effective investment, amounting to less than 1% of current stimulus spend.

The country's €519 million ($618 million) contributions to Covax-AMC will more than pay for itself in both direct and indirect benefits to the economy. In 2019, Germany exported more than €44 billion in goods and services to LLMICs, with 27% purchased by African countries and more than 60% by Asian ones. Just a 4.6% reduction of imports by LLMICs in 2020-21—as implied by the latest IMF forecasts for emerging markets, assuming slow progress on vaccination—makes supporting ACT-A economically impactful purely from the perspective of export growth.

Looking across sectors, the overall economic benefits to Germany at risk from exposure to LLMICs stand at €2.7 billion for 2020-21. Over the next five years, this sum could rise to €8.1 billion ($9.1

billion). This equates to 24% of the total $38 billion costs of the entire ACT-A program. Although economic returns and budgetary contributions are not directly offsetting, the indirect economic value that can be attributed to the economic recovery of LLMICs would benefit Germany as well. These include averting the costs of increased migration if lower-income countries slide into a deeper economic recession.

Germany's economic value at risk by sector

	International exposure (€B)	Of which, derived from LLMICs	LLMIC exposure (€B)	Potential economic losses (€B, 2020-21)	Potential economic losses (€B, 2020-25)
Tourism	47	1.9%	0.9	0.3	0.7
Education	3.1	35.6%	1.1	0.3	0.5
Manufacturing	1,253.7	3.5%	44.1	2.0	6.6
Financial services	22.9	0.3%	0.1	0.03	0.1
IT	37.6	2.3%	0.9	0.04	0.1
Total				**2.7**	**8.1**

Source: Eurasia Group

Manufacturing: Germany's vast manufacturing sector is highly exposed to global shocks, including in LLMICs where more than 3.5% of the country's manufactured goods are exported, amounting to over €44 billion in 2019. In particular, the sector is highly exposed to African states, especially in North Africa, which purchased more than €11 billion worth of goods and services in 2019. German manufacturers are also heavily exposed to the Asia-Pacific region, which generated close to €31 billion in earnings for German exporters last year. In addition, German companies have a deep interest in LLMICs' recovery beyond just exports from Germany. Bosch generated €450 million in annual revenue from Africa before the pandemic, and German automakers have relied on growth markets in Asia in recent years, including Munich-based BMW, which is reliant on fast-growing LLMICs in Southeast Asia such as Vietnam. If equitable vaccination efforts to Covax-AMC0-eligible LLMICs stall, export losses to Germany could rise to €2 billion in 2020-21 amounts. Over a longer period, in 2020-25, these losses could more than triple, rising to €6.6 billion in total.

International tourism: Travel restrictions have had a serious impact on the German tourism sector already. Although neighboring countries are the largest sources of international tourism spending, LLMICs still account for about 2% of overnight stays in Germany. On an annual basis, this equates to roughly €1 billion in spending that would be at risk if LLMICs cannot recover at the same pace as higher-income states. India and Ukraine are the two biggest sources of LLMIC overnight stays.

Key German companies are likewise at risk in this sector. As mentioned, Lufthansa Group is exposed to many LLMICs, some of which it relies upon as growth markets. According to Lufthansa's CEO, more than 10,000 jobs are at risk owing to protracted crises and ongoing travel restrictions. Overall, we estimate that over €310 million in international tourism revenues could be lost due to reduced travel from LLMICs in an inequitable vaccine scenario in 2020-21. In 2020-25, the economic benefits lost could rise to more than €730 million.

Education: More than 36% of Germany's foreign students come from LLMICs, with India sending the largest number. Germany also hosts growing LLMIC populations from countries such as Cameroon, Tunisia, Morocco, and Vietnam. The Free University of Berlin, which has the most international students of any university in Germany, has seen consistent growth of 4.5% in the number of foreign student applications it receives yearly, with enrollment from Indian students growing by 16% in the past academic year alone.

The economic contributions of students from LLMICs exceed €1.1 billion per year. This figure is derived from estimates of consumer spending, meaning these amounts would be fully at risk from students who cannot attend in-person in Germany. Travel restrictions imposed by continued outbreaks in foreign students' home countries reduce the spending that Germany's education sector receives from these students. Accounting for the possibility of studying online, Germany could lose about €260 million in a downside scenario in 2020-21. During 2020-25, student spending losses could increase to €520 million in a scenario of inequitable vaccine distribution.

Financial services: Domestic banks and insurers are highly internationalized and have operations across many LLMICs. For example, insurance giant Talanx has major African operations, while Allianz operates across LLMICs in Asia and Africa. Deutsche Bank, meanwhile, receives almost €1 billion in revenue from Covax-AMC-eligible LLMICs, such as India, Pakistan, and the Philippines. This puts German financial services firms at risk, not just from a decline in revenues, but also from exposure to foreign financial assets. Deutsche Bank in particular may be exposed to rising credit risk in emerging markets, as the global economy continues to deteriorate.

In total, Germany exports more than €23 billion in financial services, with 0.3%, or €100 million going to LLMICs. The financial sector could stand to lose about €30 million owing to this exposure in 2020-21. Over the period 2020-25, these losses could grow to €100 million.

Information technology and communications: In 2019, German ICT companies exported more than €880 million in services to LLMICs. The reduced growth resulting from lack of vaccine access puts about €40 million of that number at risk for 2020-21. For the period 2020-25, this figure rises to €130 million. Many German companies rely on business process outsourcing and IT outsourcing services from LLMICs; the added complications for German companies caused by disruptions within LLMICs will act as a multiplier effect for Germany's IT sector.

Geopolitical advantages for Germany

Both the world and Germany are at pivotal points in history. The world is experiencing a weakening multilateral system and an internationally uncoordinated response to the pandemic—global responses are needed more than ever but are at the same time more challenging than in any time in recent memory. Meanwhile, Germany is at its own crossroads, with an opportunity to set its foreign policy agenda in ways that affirm its central role in the European Union and Euro Area, as well as other international institutions.

Germany has an interest in both reaffirming its global health leadership and underpinning the global stability that has long been a cornerstone of German foreign policy. Having set an example in its pandemic response thus far, including in assistance to the developing world (for instance in providing assistance to Africa through organizations such as Charite), Germany has the opportunity to build on its international reputation for the dissemination of best practices and scientific leadership. ACT-A's equitable approach ensures these opportunities remain aligned with Germany's longstanding role as a leader in global health.

In 2013, the Federal Ministry of Health released a global policy emphasizing the export of German knowledge to tackle pressing health challenges. During the German presidency of the G7 in 2015, and the G20 in 2017, Chancellor Angela Merkel made world health a top priority, focusing on combating antimicrobial resistance and pandemic preparedness. Regarding Covid-19 vaccines, Chancellor Merkel stated: "We will only defeat this virus if we join forces and form a powerful alliance. This concerns a global public good, to produce this vaccine and to distribute it in all parts of the world." With Germany now leading the European Council, the country's continued push for a global health agenda is needed more than ever, especially in the face of geopolitical tensions across major powers and an economic crisis that is gripping the world.

The pandemic has added significant risk to the global system from many angles. From an economic standpoint, through its impact on already faltering trade and financial flows. From a geopolitical standpoint, through its exposure of weaknesses in global coordination, with countries turning inward to address the challenge, and the multilateral picture complicated by the absence of US leadership and the rising ambitions of China and Russia. With risk building up in the system, the ability to absorb further shocks down the road is diminished. LLMICs could themselves be the source of such shocks, with additional economic crises and sovereign defaults a real possibility. Support for LLMICs therefore directly reduces the risk of such systemic challenges, while ensuring the multilateral system is reinforced in its ability to tackle the shocks that do arise.

There is a clear need for multilateral solutions to today's biggest challenges, and German leadership to ensure the strength of these systems is of critical geopolitical importance. The country's key role in the global system ensures that bolstering its ability to tackle global challenges is to Germany's strategic

advantage.

Conclusion

Germany has an opportunity to make a material difference for LLMICs beleaguered by Covid-19. Its contribution to Act-A will help to save lives and rebuild their economies, bolstering the decades of progress that has been made through Germany's global aid leadership. Given the drastic differences in economic outcomes that equitable vaccination could generate, Germany's share of funding for the ACT-A program would more than pay for itself. For a minimal added sum to existing stimulus spending, this support plays a small but crucial role in ensuring the economic response to Covid-19 is a holistic one. Beyond this, Germany's participation is crucial for the future of the multilateral system and the country's role within it. ACT-A provides Germany with the perfect opportunity to showcase its continued commitment to partnership with LLMICs and to reinvigorate the role of multilateral approaches in the current global system.

Appendix: Methodology for economic analysis

Economic analysis is based on the expected negative effects of sustained outbreaks in LLMICs implied by the difference between the downside and baseline scenarios of the IMF's October 2020 World Economic Outlook forecasts. The impact on each of the key affected sectors was calculated differently, with a focus on the impact of travel bans, lost export purchasing power, and—in the case of net energy exporters—affected global commodity prices.

In each case, the sector was assessed in terms of its contribution to the economy, as well as its exposure to global markets. Sector exposures were divided by the contribution provided by LLMICs to arrive at a total "LLMIC exposure" figure for the sector. This figure was then run through a baseline and downside scenario to calculate possible economic losses under better and worse virus scenarios in LLMICs.

The approach is summarized in the table below:

Travel bans	**Export purchasing power**	**Global commodity prices**
Lost spending in-country due to travel restrictions	*Lost in-country revenue due to lower exports*	*Lost in-country revenue due to reduced global prices*
Spending from international travelers	Manufacturing/services exports	Commodity outputs
Share of spending from LLMICs	% to LLMICs	Possible price change from lost LLMIC demand
		Possible reduction in exports to LLMICs owing to weaker demand
Product: exposure	**Product:** exposure	**Product**: exposure
Scenario 1: LLMIC travelers restricted	Scenario 1: worse trade growth outcome	Scenario 1: worse commodity price outcome; weaker demand
Scenario 2: travel largely normal	Scenario 2: better trade growth outcome	Scenario 2: better commodity price outcome; better demand
Delta: value at risk	**Delta**: value at risk	**Delta**: value at risk
Applied to: Tourism	**Applied to:** ICT, FS	**Applied to:** Energy

LLMIC country list

For the purposes of this analysis, LLMICs are defined as the low- and lower-middle-income countries that are eligible to access the Covid-19 vaccine through Gavi's AMC. This initiative aims to secure doses of vaccine for poorer countries through the Covax Facility, a mechanism to provide participating countries with access to the world's largest and most diverse Covid-19 vaccine portfolio.

Covax-AMC-eligible countries include all economies with GNI per capita under $4,000, in addition to other World Bank International Development Association (IDA)-eligible economies. The list includes the following **92 states**:

- **Low income:** Afghanistan, Benin, Burkina Faso, Burundi, the Central African Republic, Chad, the Republic of Congo, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Liberia, Madagascar, Malawi, Mali, Mozambique, Nepal, Niger, North Korea, Rwanda, Sierra Leone, Somalia, South Sudan, Syria, Tajikistan, Tanzania, Togo, Uganda, and Yemen
- **Lower middle income:** Angola, Algeria, Bangladesh, Bhutan, Bolivia, Cabo Verde, Cambodia, Cameroon, Comoros, the Democratic Republic of Congo, Cote d'Ivoire, Djibouti, Egypt, El Salvador, Eswatini, Ghana, Honduras, India, Indonesia, Kenya, Kiribati, Kyrgyzstan, Laos, Lesotho, Mauritania, Micronesia, Moldova, Mongolia, Morocco, Myanmar, Nicaragua, Nigeria, Pakistan, Papua New Guinea, the Philippines, Sao Tome and Principe, Senegal, the Solomon Islands, Sri Lanka, Sudan, Timor-Leste, Tunisia, Ukraine, Uzbekistan, Vanuatu, Vietnam, the West Bank and Gaza, Zambia, and Zimbabwe
- **Additional IDA eligible:** Dominica, Fiji, Grenada, Guyana, Kosovo, the Maldives, the Marshall Islands, Samoa, St. Lucia, St. Vincent and the Grenadines, Tonga, and Tuvalu

Appendix sources

Eurasia Group analysis leveraged numerous sources to compile the necessary data and assumptions underlying the report and its economic calculations.

Primary sources:

- IMF Global Economic Update, June 2020
- OECD Economic Outlook
- Deutsche Bundesbank
- Federal Statistics Office
- WTO trade in services data
- German Academic Exchange Service
- Studying in Germany (studying-in-germany.org)
- QS Survey: How Covid-19 is affecting prospective international students across subject areas
- World Integrated Trade Database
- International Air Transport Association, Outlook for Air Travel over the next five years
- IMF Policy Tracker
- Bill & Melinda Gates Foundation, 2020 Goalkeeper's Report
- Center for Effective Global Action: How deep is the Covid-19 recession in low-income countries—evidence from Kenya

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