NEW YORK - In 2020, chronic undernutrition stunted the growth of nearly a quarter of the world's children under five years old. Being too short for one's age, as a result of chronic undemrition, can cause irreversible physical and cognitive damage and increases the risk of dying from common infections.

Improving the lives of these children is not a question of food supply. Current cereal grain production, about 2.8 billion tons, provides enough calories to feed 11-14 billion people - more than meeting humanity's current needs. But less than half of the world's grain is eaten by humans, with the remainder fed to animals or burned as fuel. Almost every gallon of gasoline in the United States, for example, contains 10% corn ethanol.

Too poor to affect grain prices in global markets, the chronically hungry are economically invisible. To avert the devastating and long-lasting effects of poor nutrition and health, we propose an innovative financing mechanism that will attract impact investors and ensure adequate food for these malnourished children.

In 2019, two World Bank economists, Emanuela Galasso and the late Adam Wagstaff, found that childhood stunting reduces adult economic productivity, estimating a per capita income loss of between 5-7% in developing countries. And that figure does not account for the millions of stunted children who die young.

Galasso and Wagstaff also conducted a cost-benefit analysis of applying ten tested nutrition interventions over ten years in 34 countries that together account for 90% of the world's stunted children. According to their estimates, the benefits would outweigh the costs by a ratio of at least five to one, and the annual rate of return would be 12%.

Such high payoffs could induce investors to buy development impact bonds focused on ending childhood stunting in low-income countries. The idea behind this type of financial instrument, in which investors provide financing for development programs and receive returns only if agreed-upon outcomes are achieved, is "to generate a positive, measurable social and environmental impact alongside a financial return."

The World Bank's Pandemic Emergency Financing Facility (PEF) tried a similar mechanism, albeit to provide emergency funding to the poorest countries in the event of a pandemic. Investors purchased insured bonds in 2017, and the proceeds were to be paid to developing countries to contain infectious-disease outbreaks. The Bank closed the PEF in April 2021, amid criticism that it was too generous to investors while being too strict and too slow in payouts to governments. Nevertheless, an independent assessment from the London School of Economics concluded that a "properly reformed" PEF has "great potential" to contain pandemics with early and effective responses.
While the large benefit-cost ratio of tested nutrition interventions provides a compelling rationale for development impact bonds, a model of private financing or a public-private partnership could avoid the PEF’s mistakes and overcome governmental and individual corruption, cumbersome bureaucracies, and political instability.

Returns on investments in nutrition-intervention bonds would be tied to programs’ projected economic benefits. After all, effective nutrition interventions should boost productivity and increase the tax base in the participating country. For example, governments could contract with bond issuers to establish and operate anti-stunting programs and then gradually increase payments to these issuers for their nutrition interventions as the expected economic benefits materialize.

Of the many possible models for "childhood growth" bonds, the majority of these bonds would be jointly issued by a parent entity in the developed world and its subsidiary in the local country. Together, they would design the program in consultation with the participating government and recognized experts in child nutrition, field interventions, and data evaluation.

After receiving the invested funds, the parent entity would channel them tax-free to the subsidiary to implement the nutrition interventions alongside the government. That could mean buying food from local producers or markets and delivering it to poor pregnant women and undernourished children. Supplying food, at least in part, through monitored childcare programs outside the home could reduce misappropriation.

Under the contract with the parent and the subsidiary (whose terms would be public), government payments would be in a hard currency. A "sinking fund" would cover interest payments until the government begins to see results. The government would also have the right to assume control of the program at any time in exchange for prepaying the bonds.

The simplest model would offer fixed principal and interest payments, backed by fixed contractual payments. But investors with a greater appetite for risk may prefer governments to reward better-than-expected improvements in child nutrition and related tax revenues with larger contractual payments, triggering larger payments to the bondholders. Of course, poorer-than-expected improvements would result in smaller payments.

It will be important to design payment rights early and well. Given that emerging markets have a long history of debt crises, and that governments tend to repay development-finance institutions (DFIs) first, investors will want these bonds to rank equally in payment rights with the government's debts to DFIs. They may also insist on the contract being tied to a governmental obligation to a DFI, a DFI guarantee of the bonds, or an agreement by a DFI to purchase the bonds from the bondholders upon any payment default.

Nutrition-intervention bonds are an innovative financing vehicle that promises to put food on the table, prevent childhood stunting, and yield high returns for investors. If well-structured, they can be powerful catalysts for economic growth and improving the welfare of the world's most vulnerable people.

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