

Vaccine Bonds fund CEPI's fight against epidemics



Credit: Gavi/2014/GMB Akash

The world has made staggering progress on improving health in the last two decades. Child mortality is at its lowest, and today's generation is set to be the healthiest yet.

When Gavi, the Vaccine Alliance was established in 2000, almost ten million children globally would die annually before their fifth birthday. By 2017, this number had almost halved.

Although the world is significantly healthier, safer and more prosperous than it was when Gavi was established, these gains are fragile. Too many children are still missing out on the benefits of vaccination.

In addition, there are still many infectious diseases such as Nipah Virus and Lassa Fever without effective vaccines. But work to develop them is underway thanks to a recent IFFIm Vaccine Bond issuance to fund the Coalition for Epidemic Preparedness Innovation, known less formally as CEPI. CEPI is developing new, urgently

needed vaccines for some of the world's most dangerous infectious diseases.

In CEPI's case, IFFIm is lending its proven and powerful frontloading mechanism to an organisation that complements Gavi's mission. CEPI is an Oslo-based public-private initiative founded in 2017. CEPI's immediate mandate is to develop vaccines for six diseases with outbreak potential but for which the world currently has no preventive defenses: Nipah Virus, Lassa Fever, Rift Valley fever, Chikungunya, and Middle East Respiratory Syndrome (MERS) as well as a vaccine for yet unknown pathogens, which are commonly referred to as Disease X.

These new vaccines could be part of Gavi's

Japanese investors primed a global market for vaccine bonds.

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Gavi/NIAD

VRC scientist working in lab.

Dai-ichi Life, IFFIm's first institutional investor in Japan, became the largest major purchaser of the CEPI bond. Two Norwegian institutions, Kommunalbanken (KBN) and Norwegian pension fund MP also purchased most of the remaining portion of the bonds.

The World Bank, IFFIm's Treasury Manager, coordinated the bonds' sale through lead managers Skandinaviska Enskilda Banken (SEB) and

Toronto-Dominion Bank. The issuance, which will mature on 15 March 2025, has a reoffer price of 93.892%, 2bps through mid-swaps in NOK.

"This transaction demonstrates how IFFIm, a unique innovative financing mechanism, effectively brings together a major new international initiative, such as CEPI developing life-saving vaccines, and socially responsible investors," said IFFIm Board Chair Cyrus Ardalan.

"This issuance will enable CEPI to quickly access the funding it needs to speed up the development of vaccines against these emerging epidemic threats."

Richard Hatchett, CEO, CEPI

future global agenda: as CEPI produces these new vaccines in the years ahead, IFFIm's support for CEPI could yield dividends in the form of new vaccines for deadly epidemics and diseases.

The unique architecture of the CEPI transaction – IFFIm's 35th since 2006 – called for the Government of Norway, a longstanding donor to IFFIm and Gavi as well as a donor to CEPI, to make a multi-year contribution of NOK 600 million (approximately US\$ 66 million) to Gavi. IFFIm then issued bonds in Norwegian krone against that contribution, thus frontloading the funds for CEPI's immediate use.

As CEPI CEO Richard Hatchett noted at the time of July issuance, it will "enable CEPI to quickly access the funding it needs to speed up the development of vaccines against these emerging epidemic threats."

What is IFFIm?

The International Finance Facility for Immunisation (IFFIm) was initiated in 2006 to rapidly accelerate the availability and predictability of funds for immunisation. IFFIm uses government pledges to support the issuance of Vaccine Bonds sold to institutional and individual investors. The money supports vaccine programmes of Gavi, the Vaccine Alliance, a public-private partnership that works to save children's lives and protect people's health by increasing access to immunisation in developing countries. The World Bank is IFFIm's treasury manager. IFFIm's donors comprise Australia, Brazil, France, Italy, the Netherlands, Norway, South Africa, Spain, Sweden, and the United Kingdom.



Gavi, the Vaccine Alliance is a public-private partnership committed to saving children's lives and protecting people's health by increasing equitable

use of vaccines in lower-income countries. The Vaccine Alliance brings together developing country and donor governments, the World Health Organization, UNICEF, the World Bank, the vaccine industry, technical agencies, civil society, the Bill & Melinda Gates Foundation and other private sector partners. Gavi, the Vaccine Alliance is supported by donor governments (Australia, Brazil, Canada, Denmark, France, Germany, Iceland, India, Ireland, Italy, Japan, the Kingdom of Saudi Arabia, Luxembourg, the Netherlands, Norway, the People's Republic of China, Principality of Monaco, Republic of Korea, Russia, South Africa, Spain, the State of Qatar, the Sultanate of Oman, Sweden, Switzerland, United Kingdom, and United States), the European Commission, Alwaleed Philanthropies, the OPEC Fund for International Development (OFID), the Bill & Melinda Gates Foundation, and His Highness Sheikh Mohamed bin Zayed Al Nahyan, as well as private and corporate partners (Absolute Return for Kids, Al Ansari Exchange, Anglo American plc., The Audacious Alliance, The Children's Investment Fund Foundation, China Merchants Group, Comic Relief, Deutsche Post DHL, Dutch Postcode Lottery, the ELMA Vaccines and Immunization Foundation, Girl Effect, The International Federation of Pharmaceutical Wholesalers (IFPW), the Gulf Youth Alliance, JP Morgan, Kuwait Fund for Arab Economic Development, "la Caixa" Foundation, LDS Charities, Lions Clubs International Foundation, Mastercard, Majid Al Futtaim, Orange, Philips, Reckitt Benckiser, Red Nose Day Fund, UBA Foundation, Unilever, UPS and Vodafone). www.gavi.org



The World Bank is like a cooperative, made up of 189 member countries.

The World Bank's goals

are to (i) end extreme poverty at the global level within a generation and (ii) boost shared prosperity. The World Bank is also the treasury manager for IFFIm. In that capacity, the World Bank manages IFFIm's finances according to prudent policies and standards. This includes IFFIm's funding strategy and its implementation in the capital markets, rating agency and investor outreach, risk and investment management. The World Bank also coordinates with IFFIm's donors and manages their pledges and payments as well as IFFIm's disbursements for immunisation and health programmes through Gavi, the Vaccine Alliance.

www.worldbank.org

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In Japan, Gavi launches its journey to 2020 Replenishment Conference



Global health leaders convene at TICAD 7 in Yokohama. Jane Aceng, Uganda Minister of Health, Aksel Jakobsen, Norway, and Princess Lamia Bint Majed Al Saud, Secretary-General, Alwaleed Philanthropies.

Gavi's global immunisation programmes have resulted in more than 760 million children vaccinated and more than 13 million deaths averted since 2000 – outcomes that are already transforming the world's poorest countries where vaccine coverage had once been dangerously low.

Now, as Gavi heads into its 21st year, its gaze is fixed on the remaining future challenge: one in five children worldwide still go without the most basic vaccines, and about half of the children living in Gavi countries do not benefit from the full complement of Gavi-supported vaccines.

These so-called “fifth children” are at the heart of Gavi's upcoming 2021 to 2025 strategy to meet the Sustainable Development Goal of reducing neonatal and under-five mortality by expanding the availability of life-saving vaccines to more of the world's children.

Gavi is at an important turning point to build on historic gains and make vaccines work for all. IFFIm will continue to play an essential role in lowering Gavi's funding gap by assuring resources and accelerating funding. So, too, will the many donors that will gather at Gavi's Third Replenishment Conference in London next year to announce their contributions to the Alliance.

In August 2019, Gavi launched the replenishment process at the 7th Tokyo International Conference

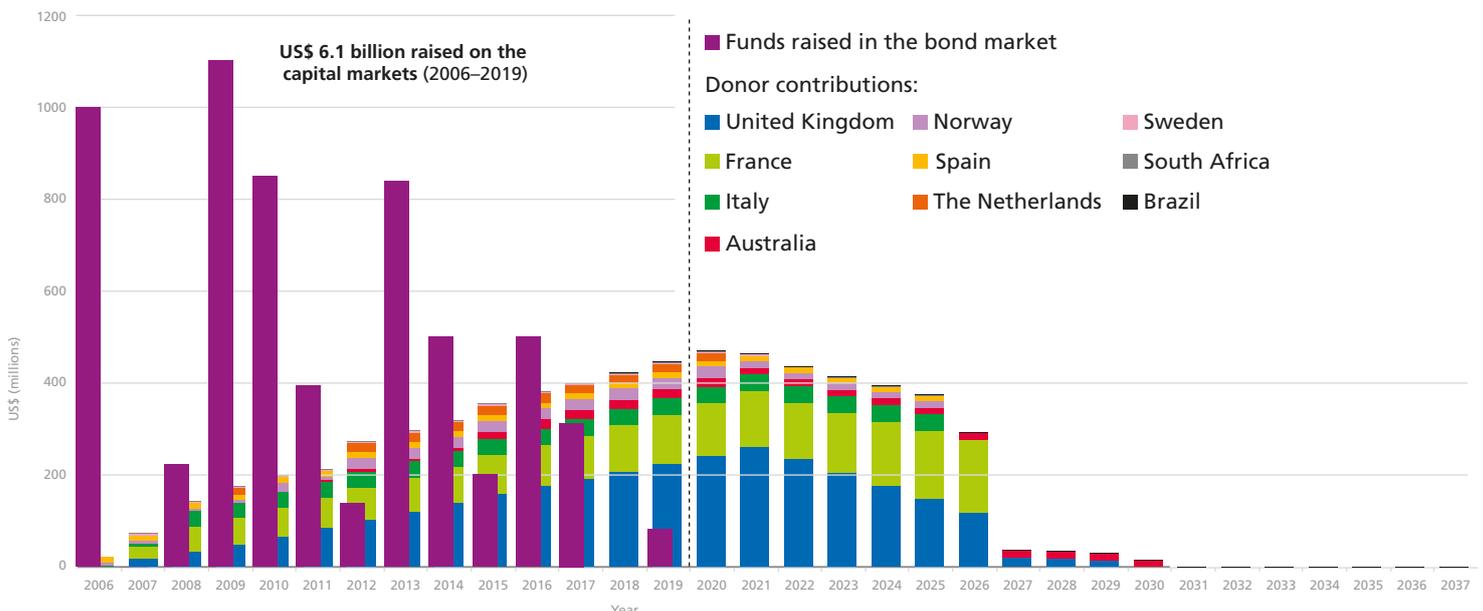
on African Development (or TICAD) in Yokohama, Japan. Before leaders from Africa and donor countries across the globe, Gavi unveiled its Investment Opportunity for the 2021 to 2025 strategic period, during which Gavi's support will immunise an additional 300 million children, saving up to eight million lives in developing countries between 2021 and 2025.

To deliver on these ambitious goals, Gavi aims to raise at least US\$ 7.4 billion in additional resources at the 2020 Replenishment Conference. Developing countries are set to invest a total of US\$ 3.6 billion in their own vaccine programmes over the period, up from US\$ 1.6 billion in 2016-2020.

Among other priorities, Gavi's strategy includes: reaching children who have missed vaccinations, particularly migrants, displaced people and others from vulnerable communities; removing barriers to immunising girls; and enhancing country-led and community-owned immunisation initiatives.

The 2020 Replenishment Conference in London will follow the successful 2nd replenishment in Berlin in January 2015, which raised US\$ 7.5 billion for Gavi's 2016 to 2020 strategic period, and its first pledging event in 2011 in London, where donors committed US\$ 4.3 billion.

IFFIm issues bonds based on long-term pledges



Note: Brazil is scheduled to make payments of US\$ 1 million per year over 2030-2037 totaling US\$ 8 million over the period. The total amount of donor commitments to IFFIm including Brazil's new pledge is US\$ 6.55 billion.

Islamic investors make a positive impact on global health with Vaccine Sukuks

Support for immunisation from Islamic countries and financial institutions through sukuk reached US\$ 750 million in 2019. In April, IFFIm issued its third sukuk in Islamic capital markets in a private transaction with the Islamic Development Bank (IsDB) that raised US\$ 50 million, following \$700 million raised by its two previous sukuk.

What is a Vaccine Sukuk?

IFFIm Vaccine Bonds have been issued in Japan, the UK, Australia and in the Eurobond market. In the Islamic finance market, these transactions take the form of sukuk.

A sukuk is a financial certificate that complies with Islamic law. Sukuk are similar to Western-style “bonds,” but are structured to avoid interest, or “riba” which is prohibited in a sukuk transaction.

IFFIm’s Vaccine Sukuks have a clearly defined purpose: to fund life-saving vaccine programmes in the world’s poorest countries through supporting the work of Gavi, the Vaccine Alliance.

Why do sukuk matter?

Islamic investing at its very heart is social. “Islamic finance and socially responsible investing are both based on the principle that individuals should invest in things that align with their values. It’s investing with a purpose,” said IFFIm Board Chair Cyrus Ardalan.

IFFIm meets the rigorous requirements to be ethical and to have a social impact—saving lives and improving global health by financing the purchase of vaccines for children in the world’s poorest countries.

Moreover, Islamic countries have a considerable stake in Gavi’s success. Half of Gavi’s international support goes to Organisation of Islamic Cooperation (OIC) countries. Since 2000, Gavi has helped to immunise more than 289 million children in 33 OIC member states. Gavi’s financial support to these countries totals more than US\$ 6 billion as of 30 September 2018 -- 50% of Gavi’s overall disbursements worldwide.

Sukuk are a way for Islamic countries to support Gavi and make sure their own children are immunised,” says Ardalan.

Sukuk also have financial benefits. “If you are an issuer you want to have diversity in your portfolio, to touch and participate in different markets,”

adds Ardalan. The Islamic sukuk market further strengthens IFFIm’s portfolio.

IFFIm’s inaugural sukuk outperformed expectations

When IFFIm issued its first sukuk in 2014, the concept of a Vaccine Sukuk didn’t yet exist in Islamic markets.

But, the winds were at IFFIm’s back: the landmark transaction would be the first socially responsible issuance with funds to be utilised for vaccines. This would appeal to core Islamic principals—that individuals should invest money in line with their beliefs. And, as a sukuk, the transaction complied with Islamic law.

The response was immediate: the sukuk was oversubscribed, even with its unique structure for sukuk market participants, immediately raising \$500 million for children’s immunisation. And IFFIm achieved strong diversification in its investor base with 85% of the order book coming from new, primarily Islamic investors.

This successful transaction became the largest Sukuk al-Murabaha issuance in the public markets and the largest inaugural sukuk offering from a Supranational.

“That first sukuk hit the market with a defined purpose,” said Ardalan.

“Interest mounted as the story circulated among banks and investors about how the new IFFIm Vaccine Sukuk would fund Gavi. IFFIm started getting requests for more sukuk.”

IFFIm responded to this intense interest and issued its second sukuk a year later, raising \$200 million. Its third issuance with IsDB in April 2019 marked the first private sukuk transaction and raised \$50 million. That’s more funding for Gavi’s immunisation programmes.

With three successful sukuk, and continuing engagement with IFFIm’s board, investment banks and countries across the OIC region, IFFIm is continuing to bring investors more opportunities to support immunisation.



A mother and child sit together during Gavi’s 2007 hepatitis B introduction in Indonesia.

GAVI/2007/Edy Purnomo

Flexible funding helps Gavi respond to Ebola outbreak



Gavi/2018/Pascal Emmanuel Barollier

First vaccination against Ebola in DRC to respond to 2018 outbreak – Vaccination of the EPI manager Dr Guillaume Ngoie Mwamba.

IFFIm brings an essential ingredient to Gavi's mission: reliable, flexible money. With assured funding as a strong market signal, vaccine manufacturers know that Gavi will have the financial resources to purchase stockpiles of new vaccines when they are ready.

Gavi's response to the ongoing Ebola outbreak in the Democratic Republic of Congo (DRC) provides a perfect example of how IFFIm's flexible funding model helps Gavi mobilise support to address emergencies.

Procuring a new vaccine for Ebola

The groundwork to fight Ebola began five years ago. As the world witnessed deadly outbreaks in West Africa in 2014 and again in the DRC in 2017, people realised that the Ebola virus not only threatened individuals and communities but also global health security and economic stability.

Although scientists had researched Ebola vaccines for decades, the lack of a commercial market meant there was no vaccine available to prevent the devastating consequences of West Africa's outbreak from 2013 to 2015.

In 2014, Gavi stepped up to address the Ebola crisis. IFFIm's ability to provide funding at scale gave Gavi latitude to make a previously unbudgeted commitment of US\$ 300 million to support broad Ebola response, including procuring millions of doses of a safe, effective Ebola vaccine if one was to be licensed. This helped signal a new market for the vaccine, encouraging health organisations and manufacturers to invest in the accelerated development of candidate vaccines and begin advanced trials.

In 2016, in the first agreement of its kind, an Advance Purchase Commitment on Ebola between MSD (Merck & Co., Inc. in the U.S.) and Gavi was signed in which Gavi committed to procure the Ebola vaccine once licensed and prequalified by the WHO. In return Merck agreed to create and maintain a stockpile of 300,000 investigational doses that could be used in case of an outbreak in the meantime. It is this stockpile that is being used in the DRC today.

With large amounts of Ebola vaccines at the ready, global health organisations have been able to deploy the Ebola vaccine quickly to combat two Ebola outbreaks in the DRC in 2018, including the one in North Kivu that is still ongoing.

Combating the current outbreak

Currently, Gavi is working to address an Ebola outbreak in the DRC, the second largest Ebola outbreak in history. Gavi has rapidly mobilised over US\$ 15 million in total to support Ebola vaccinations in the DRC, where the outbreak has claimed over 2000 lives, as well as neighbouring countries. The funding for the WHO is supporting vaccination teams, transportation, syringes and other vaccine supplies, as well as the ultra-cold fridges which keep the vaccine at the minus 60-80°C temperatures it needs to remain effective.

Despite the challenging security situation in the area, over 200,000 people at risk of being infected have so far been vaccinated in Eastern DRC. This figure includes tens of thousands of front line and health care workers who have been vaccinated in areas affected by the outbreak. Front line and health care workers are also receiving the vaccine in neighbouring areas in Goma, South Sudan, Uganda, Rwanda, and Burundi.

"The evidence we have so far suggests we have a hugely effective vaccine that is making an impact on the ground."

Dr Seth Berkley, Gavi CEO

Early data gathered in the DRC outbreaks show highly encouraging results. Ten days plus after vaccination, the efficacy for the rVSV-ZEBOV vaccine was estimated at 97% against Ebola and at 100% against death among individuals that did contract the disease.

Preparedness made this quick response to a deadly outbreak possible, and IFFIm played a role: it was a source of standby, assured funding for Gavi.



The Edge of innovative finance

Christopher “Edge” Egerton-Warburton designed the financial mechanism that became IFFIm. Read the full interview at IFFIm.org

“SRI was not a concept in the 80s and 90s, but the roots go back at least that far. This was a time when people suddenly realized we have to change something. Remember Live Aid? And in the 1990s, Drop the Debt mobilized political action to help African countries with debt relief. Celebrities were lending their name to these causes, raising money and awareness, asking people to take action. I once got an email from Michele Pfeiffer asking to write an email to Tony Blair and believe me, that got my attention!

People have different objectives when investing but most would say that they want their capital to “do good.” I have yet to meet an investor for

bad. The SRI movement has gained traction because we have been living in a world of low returns. In that environment people started asking, what more can my money do? The sector exploded with the concept of climate change. Suddenly there was demand for all things green. This has since matured, and we now have a very diverse SRI market.

There are a couple of things IFFIm did that are very important. First is obviously the frontloading effect, but IFFIm also enabled a donor government to make a 30-year financial commitment to a not-for-profit. The value this creates, giving the visibility of long-term money, is extraordinary, and would be transformative for many other organisations. Yet we live in a world where, other than Gavi, no other organisation has been afforded such trust.”

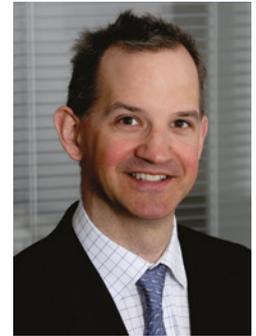
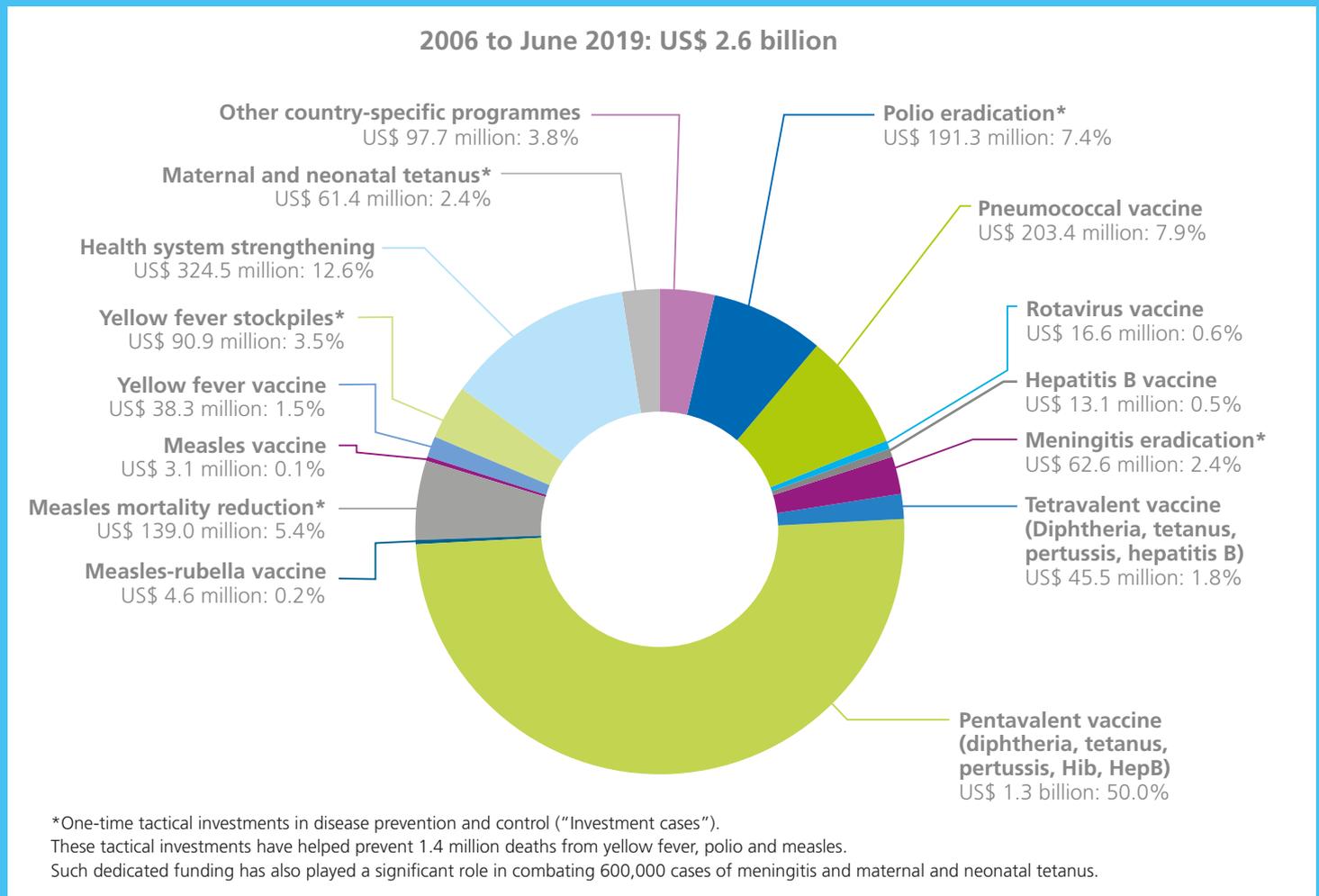


Photo Courtesy Egerton-Warburton

Egerton-Warburton, or Edge as he's known throughout the financial world, is the Co-Founder and Partner of Lion's Head Global Partners LLP and served for six years on the IFFIm Board of Directors. He is an expert in the structuring and execution of innovative financing solutions.

Gavi programmes funded by IFFIm

In total, US\$ 2.6 billion has already been disbursed to support vaccine purchase and delivery to 71 developing countries, providing 20% of Gavi's overall programme funding.



“Life is about learning, earning and returning”

Helge Weiner-Trapness, who joined the IFFIm board in early 2019, is the Founding Partner of New York City-based Quintus Partners. He has spent more than three decades working in international finance in the U.S., Europe and Asia. Here, he shares more thoughts on the growth of socially responsible investing.

Q: What do you think has been driving the tremendous growth of interest in socially responsible investments over the last few years?



Weiner-Trapness talked about socially responsible investing in vaccine bonds during an appearance on Cheddar Business in June 2019.

It's a real and encouraging trend, not just with IFFIm Vaccine Bonds but also with green bonds and other socially responsible investments. I don't think it's coincidental that it's happening at a time when people are more willing, for example, to buy more expensive electric cars because they're better for the world. While

many investors are engaged in wealth building, as they always have, today they're also interested in socially responsible investing.

A dear friend of mine has a saying that life is about learning, earning and returning, and in that order. Early on, in their 20s or 30s, people might be very focused on earning after having learned for many years. But there comes a point in their lives when they realise that earning isn't enough and that returning is also important. I think more and more investors today are taking that lesson to heart.

Q: What's on the horizon for SRI? Is there an area that hasn't been tapped?

It's hard to think of something that's more of a pure socially responsible investment than global health – and certainly IFFIm's Vaccine Bonds are a sterling example. So the best product seems already to be out there.

The question is, how much will the market expand for it? How much are countries, foundations and individuals willing to invest in causes that have enormous positive impacts on the lives of others around the world? It will go beyond health into the environmental areas. We've already seen green bonds, which are becoming more and

more common. Also, the markets where these social bonds get sold will likely broaden if the enthusiasm for them continues on the trajectory we've seen in recent years.

Q. You've worked in finance for three decades in many different regions of the world. Are there any noticeable differences in how investors view SRIs?

There are absolutely different outlooks by region, and a lot of it reflects history and current economic outlooks of the various regions.

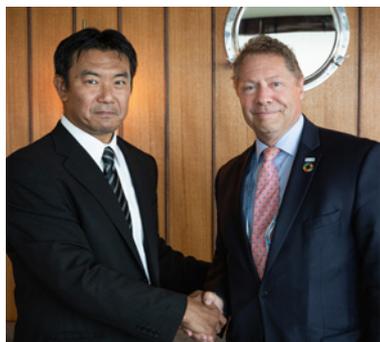
Start with Europe, where I grew up. Europe over the last many decades has relied heavily on government to do investments that meet social and environmental needs through foreign aid. In the U.S., there's a longer, deeper history of individual investing and philanthropy for these purposes than there is in Europe. A lot more of the investment in global and domestic health and in environmental projects comes from individuals in the U.S. There's work to be done in Europe to build more individual philanthropy and social investment, but at the same time, there's work to do in the U.S. to shift more support for the social sector from individuals to the government.

In Asia, it's different. Economically, many of the countries there are further behind on the economic development curve than the U.S. and Europe. Some countries there have only recently been in a position to even think about contributing to global development, and for many it will take more time. In general, they're further behind Europe and the U.S. in terms of the formation of the sort of wealth that can go into social investments. As a result, we've seen less support for SRI from Asia.

That doesn't mean they care any less about SRI in Asia. They're just starting from a different place, and I think there are many indicators to suggest that Asia's impact in this area will continue to grow over time. It represents a huge opportunity in the coming years.

How Japanese investors primed a global market for vaccine bonds

In August, Gavi and the Japanese growth equity fund Asia Africa Investment and Consulting (AAIC), announced an agreement that will support early- and growth-stage health care companies operating in Africa to scale up new immunisation products and services.



Gavi/2019/Isaac Gribberg

Shigeru Handa, AAIC Director, and Dr Seth Berkley, Gavi CEO, during the signing of the agreement.

This collaboration is the latest example of how Japan is a trendsetter in socially responsible investing. From the very first household investor to purchase Uridashi vaccine bonds via IFFIm, to the most recent investments by AAIC and Dai-ichi Life, Japanese investors have been among the first and most enthusiastic supporters of immunisation.

Household investors launch “vaccine bonds” with IFFIm’s Uridashi

Long before institutional investors got interested in SRIs, Japanese households had a stake in Gavi’s success with the very first retail issuance, or Uridashi, in 2008. Uridashi are bonds sold to retail investors in Japan. They are denominated in a foreign currency, for example Australian dollars, that can provide investors with a higher rate of return.

Purchasing Uridashi vaccine bonds at their local bank branch, mom and pop investors adopted the concept of “investing for good” and helped IFFIm grow as a leader in socially responsible investing.

In fact, IFFIm’s inaugural Uridashi brought the term “Vaccine Bonds” to public attention. They were first sold by IFFIm to individual investors in 2008 to great acclaim — an early indicator that social bonds were on the rise around the world.

IFFIm’s 2008 Uridashi was also the first issuance to gain traction in Asian markets, making international headlines with a successful retail offering which raised US\$ 222.8 million in immediate funding for Gavi’s immunisation programmes. The issuance was so successful, EuroWeek magazine cited the transaction as among the 25 most influential deals, helping set a trend of ethically themed bonds sold in Japan.

Dai-ichi Life becomes IFFIm’s first institutional investor

Japanese insurance company Dai-ichi Life took part in IFFIm’s latest Vaccine Bond issuance in July 2019 purchasing 73% of the issue, becoming its biggest investor and the first institutional investor. The issuance raised NOK600 million overall in immediate funding for the Coalition of Epidemic Preparedness Innovations (CEPI) to research and develop new vaccines. “It is critically important to accelerate the development of vaccines against emerging infectious diseases and enable equitable access to these vaccines for people during outbreaks,” said Koichi Matsumoto, General Manager, Global Fixed Income Investment Department, Dai-ichi Life.

A “great story” for investors

IFFIm’s Uridashi bond issuance to fund Gavi took place long before SRIs became popular in Japan. Momentum started when Japan’s Government Pension Investment Fund (GPIF) began to insist on investment in companies respecting the socially conscious investment criteria.

IFFIm anticipated this trend, and the concept of Vaccine Bonds as a social value investment took off.

“Individuals, many of them older women from modest households, were interested in what Uridashi could do for immunisation. People buy these bonds at their local bank branch where there were posters of children getting vaccinated hanging on the walls,” said Christopher Egerton-Warburton, Partner, Lions Head Global Partners, and one of IFFIm’s former board members. “Banks started noticing that people wanted this story.”

The Uridashi success illustrates the power of a great story to compel people to invest. These Vaccine Bonds were appealing not just because of their stable rate of return, but also because they gave investors a direct way to impact global health: saving children’s lives.

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