ESG Now Podcast

"Investing in the Fight Against Superbugs"

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Bentley Kaplan

Hello, and welcome to the weekly edition of ESG Now, the show that explores how the environment, our society, and corporate governance affects and are affected by our economy. I'm Bentley Kaplan, your host for this episode. On today's show, we're going to get into the anxiety-inducing world of antimicrobial resistance, AMR for short, or superbugs if you're into more catchy titles. It's a phenomenon that's gaining momentum, and if allowed to run its course, well, it has no real happy endings. The good news is that it's not too late to turn things around. It's a complex problem, but one that has solutions if we can get our collective house in order. So in this episode, we're going to take a look at some of the consequences of AMR, why it's such a hard nut to crack, and if there's a solid investment case to solving the challenge of antimicrobial resistance. Thanks for sticking around. Let's do this.

We've all probably been there at some stage. A doctor scribbling out a script for antibiotics. A rushed look over reading glasses, and then a somber instruction. "You need to finish the course. Keep taking it until it is all finished, even if you're feeling better. Got it?" Well, I got it, and I hope that you did too. And I got it because my doctor passed along an all too healthy respect for superbugs – microbes that could one day fight back against mainstream treatments. But for all of my paranoia and dedication to making sure I finished antibiotic courses that were, let's be honest, quite few and far between, well, we as a planet have still ended up in a bit of a pickle. And to be clear, pathogens would naturally develop resistance to the treatments designed to target them. It happens through mutation, it's called natural selection, it's a whole thing. But what's different with antimicrobial resistance these days is the rate at which it's happening, how much faster than would be typical. And that's mostly through our overuse and misuse of antimicrobials.

To tell me just how much of a pickle we've landed ourselves in by accelerating antimicrobial resistance, I've got Namita Nair, a colleague from MSCI's London office who can wax lyrical about sustainability in the healthcare sector. First things first, Namita laid out the scope of antimicrobial resistance, or AMR, and its impact on people, healthcare, and other less obvious sectors.

Namita Nair

AMR is actually turning back the clocks on decades of medical progress. So infections like pneumonia that were once easily treatable are potentially deadly again. Today, it's responsible for over one million direct deaths annually, and an additional 3.7 million deaths indirectly. AMR kills more people each year than HIV-AIDS, malaria, and most cancers combined. So if it's left unchecked, it could potentially lead to around 10 million deaths annually by 2050, and the WHO estimates that AMR could cost the global economy around a trillion dollars annually in additional healthcare costs by 2050. So in healthcare, it means longer hospital stays, higher treatment costs, and increased mortality rates.

Now, I also want to stress that AMR is more than just a healthcare issue. It is a systemic risk, and it cuts across multiple sectors. For example, in agriculture, 73% of all antibiotics, antimicrobials that are sold globally are used in livestock, right? And the rising resistance is already threatening food production. So if there are diseases in livestock, they're becoming harder to treat, which leads to reduced yields and higher food prices. And the World Bank estimates that AMR could reduce global livestock production by three to eight percent by 2050. In low and middle-income countries, that could be an almost 11% decline.

The financial sector is not going to be immune if there are a lot of heavyweight sectors affected already. By our estimates, around nine percent of MSCI ACWI IMI Index's enterprise value, including cash, is directly exposed to AMR related risks. So, this means potential market disruptions across multiple industries, leading to significant economic instability. AMR is not just a health crisis, it is a threat to global economic stability, food security, and entire industries, and I'd like to emphasize that the time to act is now.

Bentley Kaplan

Right, so the time to act is now. Stern words. And we'll get back to why this isn't a can that can be kicked down the road a little later in the show. First, let's just reflect on Namita's broader message there. Antimicrobial resistance sucks, right? If you're a patient, it means that what used to be a routine and bankable procedure can suddenly and unexpectedly become a matter of life and death. For governments, it means a sizeable trimming of GDP, impacts to food production, and a range of downstream consequences, none of them good. But from a company perspective, Namita effectively said that around 10% of the value of listed companies globally could be exposed to risks stemming from antimicrobial resistance, which is a pretty big chunk of the pie. And that exposure isn't just affecting healthcare companies, it's touching agricultural producers, food companies, and insurers.

And yes, Namita comes off a little like a propaganda poster for proactive approaches when she says that the time to act is NOW, all caps. But that's because there's an inherent time lag in when investment and development of antimicrobials starts and when there's a safe, effective product coming to market. But as Namita started telling me about this time lag, well, I got some recent and unwelcome memories from the Covid-19 pandemic. Remember that? That sucked too. It also had this global impact, and seemed like a complex problem to solve with a sort of race against time. And though things seemed to move in slow motion at the time, suddenly there was a vaccine. There were actually several vaccines being made by different groups in different parts of the world. So if we, and I use the word we here most generously, because my contribution was basically sanitizing groceries and masking up, if we could crank out a few vaccines for Covid-19 in the space of months instead of yours, well, why can't we just do the same for antimicrobial resistance?

Namita Nair

There are some structural challenges that make AMR a much tougher problem to tackle than Covid-19, the pandemic. First of all, developing new antibiotics is costly, and it offers lower returns. So the average cost of developing a new antibiotic is more than a billion US dollars, and it takes about 10 to 15 years. These are not numbers that are very far off from other drugs, but it's important to understand that the pipeline of innovative candidates for antibiotics is really sparse. Only 97 products are in clinical development as of December 2023, and about 95% of these are going to fail, according to traditional statistics. You have to understand that the viable products that we will get at the end of 10 to 15 years will be very few.

Now, when we contrast with the Covid-19 vaccines, the global market for Covid-19 vaccines was immediate and it was massive. It was driven by urgent demand, there was widespread use. But the market for new antibiotics is starkly different. New antibiotics have to be stewarded. They can't be used indiscriminately. They have to be used sparingly to prevent further resistance from developing. And then this limited use results in lower sales volumes, and this might not make it a financially attractive proposition for pharmaceutical companies to invest in the development of new antimicrobials.

Another thing is that AMR research faces significant funding gaps. Okay? So there are initiatives like Carb-X and the AMR Action Fund that have made strides, but they're not enough. The estimated annual push funding for AMR is less than 200 million US dollars, which is far below what's needed. And the financial viability of antibiotic development, again, as I mentioned earlier, it's hampered by high failure rates of about 95%. And there's a lot of complexity in the clinical trials also, which makes the process long and expensive and risky. So there has been an exodus of large pharmaceutical companies from the antibiotics market, and this space, this gap, is being filled by small and medium-sized enterprises, for whom the financial support is very necessary to move along the product development pipeline.

So addressing AMR requires overcoming significant structural barriers. There's limited market size, there are funding gaps, and a lack of urgency, because you don't see the threat as immediately as you would have in the Covid-19 pandemic. And there isn't requirement for a coordinated effort to address these issues. As such, the development of new antibiotics remains a slow, underfunded process at present.

Bentley Kaplan

Right, so tackling the challenge of antimicrobial resistance is going to be slow, expensive, and risky, to quote Namita. Not exactly an enticing trifecta. And aside from the actual difficulty in generating a novel treatment that passes through the various stages of clinical trials, it's about getting funding through those various stages, being able to connect to a market that either has enough volume or high enough margin to make it worth your while. And as Namita points out, some of the bigger pharma companies have scaled back their antimicrobial programs because the business case for them, as things currently stand, isn't working out. And the smaller operators that have stepped into this gap have less of a financial buffer if and when things get stretched.

But there is hope, and there are ways to take on the sticky challenge. And sure, many of these ways involve multilateral organizations like the World Health Organization or the United Nations, and things like national policy frameworks or incentive programs set up by different governments. And there are a bunch of these different programs currently in action, like the PACE initiative in the US, the Carb-X and AMR Action Fund, or the Pasteur Act and Medicare's NTAP program. But in aggregate, as Namita tells it, these efforts aren't enough. So next month in September, the United Nations General Assembly will be convening a high-level meeting on antimicrobial resistance, and world leaders will look at how to meet the threat of AMR and its potential effects on health, food security, and meeting the sustainable development goals.

But as charismatic as we are here on ESG Now, I'm going to take a guess that most of the listeners to our show are not world leaders. So to close this episode off, I asked Namita if there's any room for investors in the fight against AMR, whether there might be an investment case in solving this particular tragedy of the commons.

Namita Nair

AMR now offers compelling opportunities. So the solutions for AMR, there are compelling opportunities for different types of investors. If you take something like a sovereign wealth fund, these are focused on long-term stability and value preservation. And investing in AMR solutions is a strategic move. So you protect national health systems and economic stability, because AMR could lead to about a 3.8% loss in GDP by 2050. So the potential economic risk is enormous. And by investing in something like AMR, you can hedge against these systemic risks and ensure some sort of economic resilience.

Now, if you're looking for impact investors, there's a very unique opportunity here to align your financial returns with social good. AMR disproportionately affects low and income countries, where access to life-saving antibiotics is already very limited, and investing in these AMR solutions and stewardship can help to reduce mortality rates and improve global health equity. And there are initiatives like the AMR Action Fund, which aims to bring four new antibiotics to patients by 2030, and these offer measurable social impact alongside financial returns.

And now let's look at some of our more traditional asset managers, for example. You can leverage AMR investments as a form of risk mitigation and diversification. So about nine percent, as I mentioned earlier, of the global EVIC is exposed to AMR-related risks, so investing in solutions can hedge against potential market disruptions in some major industries. Companies that lead in these AMR solutions would likely also benefit from things like favorable regulatory support, increased market demand, and also strategic positioning as the crisis becomes more pressing.

And finally, as a short-term investor, there is significant upside potential in AMR. As they say, high risk comes with high opportunities. So your early stage biotech companies that are focused on AMR solutions, they actually present some opportunities for rapid valuation increases. And additionally, the biotech sector is traditionally one where there are a lot of mergers and acquisitions, so there may be a lucrative exit opportunity also for such investors. And now is the time to invest, because we have a very critical window of opportunity, so we have to do this before this opportunity passes us by. The returns in this, investing in AMR, might not be as immediate and direct as in other sectors, but they are measurable and they are critical to both financial and global health stability.

Bentley Kaplan

And that is it for the week. A massive thanks to Namita for her take on the news with a sustainability twist. If you want to find out more about this research, please do go and check out the MSCI Sustainability Institute's website, where you'll find the paper titled “An Investor's Guide to Antimicrobial Resistance”. It was work done in collaboration with the Investor Action on Antimicrobial Resistance and the Farm Animal Investment Risk and Return Initiative. And I also want to say thank you very much for tuning in. If you like what we're doing, then let us know. Give us a review, rate the show on your platform of choice, and tell a friend or colleague, or a patient, about this episode. Thanks again, and until next time, take care of yourself and those around you.

TRANSCRIPT

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