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Dollar & Sense Podcast

We are a long way from vaccinating the world. Could a patent waiver help?

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This transcript has been lightly edited.

DOLLAR: Hi, I'm David Dollar, host of the Brookings trade podcast [Dollar & Sense](#). The theme this week is vaccines, specifically vaccinating the whole world population against the COVID-19 virus. My guest is Matthew Kavanagh, director of the Global Health Policy and Politics Initiative at the O'Neill Institute at Georgetown University. Welcome to the show, Matthew.

KAVANAGH: Thanks so much for having me.

DOLLAR: So the U.S. is making impressive progress now with vaccinating our population. What's the picture in the rest of the world, particularly in developing countries in the poor part of the world?

KAVANAGH: So the news is really not very good. Here in the United States, we have actually passed more than half of people have been fully vaccinated at this point, which is hugely good news. But around the world, we are facing far less success.

So in low-income countries, they've gotten just 0.4 percent of all the vaccines that have gone into people's arms around the world, and it's really becoming a problem. Africa, for example, has only about maybe 25 percent of the vaccines that it would need to reach even just its seniors and its health care workers—these priority populations. Most countries have only around 25 percent of what they need there.

In South Asia, you are looking at—probably they have got a little bit more vaccine, but still it's under 10 or 15 percent of the population in most countries that are able to be covered by the amount of vaccines they have. So really, we've got a huge supply problem and a bottleneck where the vaccines are not getting even close to equitably distributed to the countries that need them.

DOLLAR: So it's amazing that we have developed these vaccines relatively quickly. India and South Africa have proposed that we waive the patents on the vaccines so that they can be produced and quickly distributed around the world. What's the argument in favor of waiving the patents?

KAVANAGH: So the idea here is that, as you say, the science has been amazing. It is truly a marvel that within a year we have gone from no vaccines and a brand new virus that we were not prepared for to, in a year, multiple effective vaccines. Of course, this took decades of research; this did not actually happen in a year. It's been years and years of scientists working on this from a variety of different perspectives. But this last bit of work we have seen incentivized by huge investments by governments that were able to bring forth—after billions of dollars and a ton of political effort—were able to really bring forth remarkable vaccines.

The problem, though, is that these vaccines are currently almost exclusively, especially the very best of the vaccines, they are under monopolies. So you have a handful of companies that are really the ones allocating who is going to get the vaccines and who is not in terms of the global landscape. And what is clearly true right now is that we have a supply crisis. We've got far more people who need the vaccine than we have production of those vaccines. And the core of that is because there's only a handful of companies that are making the vaccines right now.

So right now in India, for example, there's really just one or two companies that are making vaccines under an exclusive license. The Serum Institute of India, for example, is making the AstraZeneca vaccine under license. They are the only ones allowed to do so. The Biological E. is making the Johnson & Johnson vaccine. But again, they are the only ones able to do it. And these two companies are basically some of only a handful of companies authorized in the entire world to actually make the vaccines. In South Africa, there's nobody really licensed; there's one kind of potential licensee coming on. In most countries of the world, there's almost none.

What we have seen when it comes to pharmaceuticals is that there's huge capacity worldwide to be able to make products. And the originator companies often say, "no, no, we are the only ones who can make these products." But in fact, what we find is that when others are allowed to do so—India, for example, has powerhouse companies. Companies, like Cipla, that are billion-dollar companies. Huge production capacity, high, high quality. Why aren't they making the vaccines too? The same is true in Brazil, in Vietnam, in Bangladesh, in South Africa, in Senegal. These are really fantastic companies that could be making the vaccines.

The problem is that they are missing two core pieces. They are missing the know-how and they are missing the right to make the vaccines. So far, despite all of the efforts by the World Health Organization and others to try to get the companies to just share their know-how, so far they haven't done so. So the idea of the patent waiver is to say, look, writ large, what we need is to get these vaccines produced in as many different places as possible. We need to mobilize all the capacities that we can so that we are making vaccines worldwide. And one of the barriers to that is the patents.

But it's not just patents, it's also the kind of broader intellectual property which includes trade secrets. So tomorrow, if I were Yusuf Hamied, the CEO of Cipla, if I decided tomorrow that I wanted to invest in figuring out how to make the vaccines. I was close, I could hire a bunch of scientists—there's lots of people in the world who understand how to do some of this stuff—to start setting up production in India to make similar vaccines. I could invest 100 million dollars in building out, retrofitting plants, doing all of that, but tomorrow I might get sued because of the patents on the pieces.

Nobody is going to invest in building out capacity if they are going to get sued for either violating trade secrets or violating patents. That's the core of the argument. We should just waive countries' obligations to have the exact same patent protection in India or South Africa or Senegal or Vietnam. The same exact protection doesn't need to be in place as in the United States or in Europe. So let countries decide. If some countries want to waive those patent rights and those trade secret rights, let them do so. That's the core argument here.

DOLLAR: I'll just remind our listeners that this international trade regime we have includes respect for intellectual property rights protection. So respect for patents, that's an important part of the existing trade regime. In this emergency, these countries are calling for a waiving of the patents that would normally protect rights in this situation.

KAVANAGH: It's worth noting here that there's been a lot of, I think, misinformation about what this would do. This is not a call for there to be no patents or no intellectual property on COVID technologies. It is exactly as you are saying: a waiving of the international obligations.

So right now, under TRIPS, every country—at the threat of violating their obligations under the World Trade Organization—every country is required to give the exact same structure to patent and trade secret recommendations. This is not saying the United States won't have patents or Europe won't have patents. This is not getting rid of IP overall. It's just saying, look, we are giving countries back that particular set of policymaking decisions so that they can, without violating their obligations, decide that in this case we are not going to apply the same standards. But I think it's a really important piece because it's really just giving countries back the ability to make that decision for themselves within governments.

DOLLAR: Now, the pharmaceutical companies that own these patents, naturally they are resisting this idea of waiving the patents. And I've seen arguments that it actually wouldn't really make that much difference. You made an interesting distinction between the rights and the know-how. So, you may have the rights, but if you don't have the know-how you are not going to be able to make these vaccines. What do you think of the argument from the pharmaceutical companies?

KAVANAGH: There's two core arguments, and I don't think either one of them hold up, but they get at a nugget of truth that we need to tackle.

The first is, “look, this is going to destroy innovation,” right? This one keeps being made over and over again. And to that, I have kind of two thoughts. One is these are publicly funded goods. They have been created through massive investments by the United States government, by European governments, that have supported these pieces. The idea that somehow in the future, if we waive global enforcement of the exact same IP rights everywhere that we are going to harm innovation, would require us to think that somehow companies are not going to take good new ideas and billions of dollars behind them to commercialize them. That universities are going to stop accepting government funding to research vaccines. That these startups—it is worth remembering companies like BioNTech or companies like Moderna, these are startups. These were not global hegemony of the industry. They took a ton of public investment and came up with something amazing. So of course they are going to keep on doing that even if there's not the same exact patent pieces in India and South Africa.

The other, as you say, I think more important argument is what would this actually do. Would a waiver solve the problem entirely? The core point here is that nobody thinks that a waiver will solve the problem entirely. That is not the argument. It's a kind of straw argument that's out there that says “Ah, if you can't solve everything with one policy shift, then you can't do it.”

What do we have here? We've got kind of three core questions when it comes to increasing capacity to make vaccines worldwide. The first is, do companies themselves or government entities have the ability to make those vaccines? And that's one thing we need to invest in, right? For example, it's not that Cipla, tomorrow, can make the vaccine. It's not that anybody can make the vaccine without an investment of funds and time and energy. In some places, if you free them up, companies themselves will just invest. They will see this, the market, and they'll do it. But also, the World Bank and others have already put up billions of dollars to say let's retrofit factories, let's build capacity, let's stand up a whole new factory to make them.

One of the things that's remarkable with the newest vaccines, especially the mRNA vaccines, is that these are vaccines that were designed to be easily scalable. So it's not

easy to make them, per say, but if you have the know-how you could scale it. So you could invest 100 million dollars—one estimate from researchers at the University College London, what they say is, look, if you do it right, about 2 billion dollars could be invested to get you 8 billion doses. We need to invest the money. We need to do that. That's not solved by a waiver. You need to do that.

The other thing is the know-how. These vaccines are complicated. They are not easy to reverse engineer in the way that what we would call a small molecule would be. Your Tylenol, your aspirin, even your HIV drugs—these are small molecules and you can kind of reverse engineer them if you are a good chemist. The vaccines, the process itself is incredibly important, but the reality is there are lots of people out there that know how to do some of this stuff. What we don't know right now is how far along are some of the companies in figuring out how to make these vaccines themselves. They are hiring people who know how to do it. There are university researchers who know how to do that. In Thailand, for example, they have actually made an mRNA vaccine that's just gone into production using most of the know-how, because most of what it takes to do these vaccines.

So the core question here is it would be far faster if the companies would just say, “look, here's our recipe. Here's how to do it.” Companies could, tomorrow, start getting it up. In fact, companies like Moderna and others have actually contracted out. When they have contracted out and shared the know-how, a couple months later factories are up and producing. So that would be the best way forward. Unfortunately, companies are refusing to do that.

So what's the second best option? The second best option is to say, “go ahead, companies. If you can figure out how to do it, go for it. If you want to hire former engineers from some of these companies who know how to make it and you want to start making that, great.” Because what we need to do right now is we need to save lives. But if you are going to get sued tomorrow for doing so, that's a whole nother world. So what we need is all three of these. We need massive technology investments to actually make the vaccines. We need to know-how, if we can get it, and we need the legal certainty to make it happen. If you get all three of those things, we're golden.

DOLLAR: Okay, so let's suppose we get all of those three things. You say we are golden, but I know that you have a long history of looking at health service delivery. So the next question I wanted to ask is, suppose we have solved the problem of patent rights and we are producing a lot of vaccines, what are the challenges to actually get these into people's arms all over the developing world? Are there complementary things we need to be doing with the larger health systems in these countries?

KAVANAGH: Absolutely, and golden is probably a bit optimistic. There are huge challenges to make it happen, but I think they are all overcome-able. What we can do as we are thinking about this is to say, “alright, what does it take to deliver vaccines?”

Actually, many low- and middle-income countries have remarkable capacity to do that. They have developed it over many years, including some of the most dedicated, amazing health workers in the world who are doing things like going to rural areas. There was a picture that circulated not too long ago of an amazing Brazilian nurse heading out through a river [...] to get to a rural community that was cut off from everything else with those vaccines.

To do that, we need to figure out how we actually invest some more money so that more health workers can be hired. That's a key thing—the Bank and others have been making some funding available. Two, we need the supply chains to make it happen. Now, this is not impossible, right? A lot of these supply chains could be built. But again, this takes an investment of money. And then three, there's a kind of big argument out there about which vaccines will be best used for which environment.

I think this is a little bit of a canard, because part of the conversation that nobody's really talking about is that we have differences in how effective the vaccines are. These have come out. And if we are trying to use vaccines to halt the pandemic—not just keep people alive, but halt the pandemic—then it matters how effective the vaccines are, especially against the variants. So these variants are coming out, and it turns out that a lot of the mRNA vaccines are significantly better when it comes to efficacy. So that leads us to a core question: the mRNA vaccines are far better, should they go to low-resource settings? There's been lots of questions because they have to be frozen and then they can only be used within a certain period of time after they have been unfrozen.

So the best of all worlds—back to my kind of what would make us golden—in the best of all worlds, we would have scientists all over the world trying to crack this problem: how do you make these heat stable. I don't care if it's a Chinese scientist or a Russian scientist or an Indian scientist or an American scientist that figures out that problem. Let's open up the technology and let everybody try to solve that problem. But in the meantime, it is also still true that if we invest the money and the time, you can get these vaccines anywhere in the world. Folks proved this in Haiti. Getting to some of the rural parts of Haiti are incredibly difficult, and yet Partners In Health and others were able to show that you can absolutely do this with the cholera vaccine previously. What you need is you need people and you need the money. If you've got those two things, you can overcome all the other problems.

DOLLAR: I want to ask you a question about China now. China has this vaccine diplomacy that I think has reached about 80 countries. And as I understand from my non-technical reading, the Chinese vaccines are less effective than some of the Western ones. There may even be questions about how reliable the data are. China is selling those vaccines to some countries, but I think it's given them free to 53 countries, if I understand correctly. So what do you think about this Chinese vaccine diplomacy and is there potential for the West and China to work together?

KAVANAGH: This is one of the most remarkable things in the kind of politics of vaccines internationally. Had you told me two years ago that what would happen is that we would have rapid development of vaccines and that the Chinese and the Russian governments would be the center of sharing globally of technologies that work, and that the United States government would be on the sidelines keeping all of its technologies to itself, I would have said no way. The United States has been a leader, in theory, in kind of global health diplomacy. The word was coined here. There's a whole world of folks in the United States that have been working on global health security for a long time. And yet, the strategy that's being pursued right now by the United States thus far—and the Biden administration just made [a shift yesterday](#) that's important to note—has been that, up to this point, the Chinese and the Russians and others have been basically diplomatically eating the lunch of the diplomats of Europe and the United States, because Europe and the United States have refused to share the technology and have shared almost no doses. So China is saying, look, we are sharing both. The Russians have been doing the same thing where the [inaudible] vaccine has been shared, where there's production factories for

the [inaudible] vaccine that are being used—and I may be saying it wrong—but have been set up in a number of countries. They are using this absolutely strategically to do so.

The United States, on the other hand, had until very recently refused to do any of that. Now, the Biden administration has shifted that a little bit. There was a moment yesterday, in fact, the Biden administration [announced](#) exactly how it was going to share 80 million doses of vaccine. So this is really good news. We should applaud the administration. They are making this move in part because they see the strategic value of this and because they see the benefit globally. But what's not happening, and what's just really distressing, is a coordinated effort.

We've got this thing called the COVAX initiative that's supposed to be allocating things ethically, thinking through how to make sure that all countries can get access to the vaccine, and doing this in the middle of the pandemic in which all countries could put doses and money together. But instead, countries are increasingly using these very strategically. The United States wants to give a bunch of vaccines to COVAX, but it also wants to give a bunch of vaccines to India because it's a strategic partner. And to the degree that what we end up with is instead of a public health approach to vaccine distribution we get a diplomatic approach to it that's all about strategic power, it's going to be hugely damaging.

The fundamental part of this problem though is that we just don't have the supply that we need. So middle-income countries around the world are actually not asking for vaccine donations. They are asking for the technical know-how so that they can set up factories and create these for themselves. They see huge benefits for not having to pay billions of dollars to foreign corporations to keep their people alive. But they also see jobs, they see economic benefit, they see all of these things. Unfortunately, that's still off the table, and we see kind of huge limitations on what the United States is doing. And to me, that's really sad, because we have pioneered the science out of NIH and out of BARDA and other settings to have these vaccines. And yet, we are not sharing the know-how. That, I think, is a huge strategic misstep.

DOLLAR: As you say, President Biden has made some [announcements](#) about donating vaccines. I think part of the impetus for that is that he will be traveling to the United Kingdom for the G7 Leaders' Summit. I've heard the British hosts refer to this as the vaccine summit because clearly the coronavirus and the need for vaccines, this is a key issue that the world is facing. You have touched on this a little bit, but what would you like to see the G7 countries, the leaders, doing? And what do you actually expect to come out of this summit?

KAVANAGH: So I wish my expectations were higher, but answering your first part of the question, I think there's three core things that could happen. The first is really a funding piece, right? So the world has yet to come together around a core vaccine global strategy that would be able to actually vaccinate the world. The head of the WTO, WHO, and the World Bank recently wrote a global op-ed where they asked for 50 billion dollars. They said, look, let's invest 50 billion dollars. It would have huge impact. It would accelerate economic recovery. It would do all of these things. Their estimate is that, in fact, it would bring something like 9 trillion dollars in additional global output by 2025 if we are able to really speed vaccinations. That is a really good trade off. I'll trade 9 trillion dollars for 50 billion. I'm not an economist, so I'll leave it to all of you who are, but I'm pretty sure that's a good trade off.

The most interesting thing to me, actually, is this point that many of us have been making from the center, which is that kind of nationalistic responses to pandemics make zero economic sense. In fact, I think Janet Yellen has been the most clear communicator on this. She has said, look, the United States economy is deeply integrated into the world. It is dependent on it. So their estimates of what that 50 billion dollars would bring is that 60 percent of the effects and positive gains would go to emerging markets and developing economies, but another 40 percent would go to rich countries, would go to the developed world, because economies are deeply integrated in 2021. So we can't have a massive economic slowdown in the rest of the world, or depression in the rest of the world, and not have that affect wealthy economy. So one is just, look, the money needs to be there.

Then the second: it would be so brilliant if out of the G7, what they said is, hey, we have invested something on the order of ten billion dollars in developing these vaccines. We are making them open source, because what our partners really need is, if you are the African Union, please stand up a production hub in South Africa and another one in Senegal and make vaccines for the continent. And that's what they are asking for. This would be a huge win. It would advance political will, it would advance economic will, and it would surely advance the ability to not just stop the COVID pandemic, but prepare for the next pandemic. Because right now, what we have seen is that if you depend on a handful of companies, it's a problem. One of the things that's deeply ironic about this is it's not that the World Health Organization is allocating vaccines badly. It's not that the G7 is allocating vaccines badly. It's that there's actually a handful of companies that are in charge of deciding we are going to sell to this country but not this country. That's a very weird way to make public policy. This is the classic example of market failure, and the G7 coordinating on it might well be able to jump over that. I'm not super optimistic that they will.

DOLLAR: I mean, I think that's really a great way to think about it: for what's really a relatively small investment in supporting health systems and perhaps giving up some patent rights, it's really small change for the U.S. economy, for the G7 economies, and it could have a massive impact for the world. I guess I share your political—I'll call it realism rather than pessimism—but let's hope the leaders step up and at least get us partway to that kind of ideal solution you're talking about.

KAVANAGH: We can certainly hope. I mean, I think that's the piece. I think I'm a somewhat cynical person at various times, but I try to be optimistic as well. It has really surprised me the degree to which we have not centered internationalism and multinationalism in the response to this pandemic in ways that have deeply harmed the global economy and deeply harmed cooperation. The actual options here are relatively straightforward. There's not somebody sitting in a secret room saying there's just tons and tons of trade-offs. There just aren't. So it is confusing to me. I understand the politics of it; I understand we are in a moment of rising nationalism and populism. I get very deeply what's driving it. But from a practical purpose, this is relatively straightforward policy. So maybe there will be some breakthroughs. That would be really great to see.

DOLLAR: I'm David Dollar and I've been talking to Matthew Kavanagh about vaccine diplomacy and some of the important issues leading up to the G7 Leaders' Summit. So thank you very much for joining us, Matthew.

KAVANAGH: Thanks so much for having me. What a great conversation.

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