

Fixed On ESG, Ep. 5

Transcript

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Female Voice: You're listening to Fixed on ESG, a monthly podcast series brought to you by PGIM Fixed Income, an active global fixed income investment manager.

John Ploeg, CFA, Co-head of ESG Research: Hello, everyone, and welcome to Fixed on ESG. I'm John Ploeg, and I co-head our ESG research team out of London.

Anna de Jong, Head of Client Advisory, Benelux and Nordics: And, hi. I'm Anna de Jong, and I'm head of Client Advisory Benelux and Nordics, and I'm based out of Amsterdam. So, thanks for joining today. If I may say so, I think we're heading for another interesting episode. You will all know that socially responsible investing has been around for a while. However, the focus on ESG investing, after this term was introduced around 04, 05 by a group of financial institutions, has been gaining quite a lot of momentum. So I don't think it'll come as a surprise to you that there's much needed focus on doing better for our world, but also an appreciation that ESG integration may have an impact on financial performance when looking at investing. But I think the difficulty is, and that's something that we've been talking a lot about, is how do you actually bring ESG integration financial implications and positive impact together in your investment strategy? Because according to us, and I think you are going to agree with us, that's not a simple task. There are definitely still many misconceptions of what ESG investing should be when it comes to having that positive impact and ensuring solid performance. So today we want to address two common topics in ESG investing that come of frequently in our conversations, namely exclusions and green bonds. Exclusions is the most common tool used in Europe to express ESG beliefs. But the development we've seen here is that the number of exclusions have increased dramatically in the last few years more recently however to address the carbon footprint of a portfolio. Then from an impact perspective green bonds has continued to be a very popular instrument to address environmental goals within ESG investing. And to give you a little flavor green bond issuance posted a 50% year over year growth rate since inception in 2007, with this year's progress slightly behind the 2021 volumes, which is due to the lower bond issuance overall. So let's start off with the most commonly used ESG strategy in Europe, namely exclusions. And given that I've just been talking a fair amount perhaps John may you give everybody some guidance on what that truly entails?

John: Sure. And the basic idea is kind of what it sounds like. The idea is to set rules for an investment manager that say you can't invest in companies based on some specific criteria. And then that effectively is going to rule out a subset of the investible universe. And there's a few forms that the criteria can take for that. So it could be based on involvement in certain products like coal or tobacco, or it could be based on perceived violations of global norms like the UN Global Compact is very common. It could also be based on not achieving a good enough ESG rating or failing a threshold on some other metric emissions intensity. Hope that's clear?

Anna: Thank you. And there's obviously a lot of reasons an ESG investor would use exclusions for. I think ultimately it comes down to companies and sectors that an investor does not want to own based on their investment, their ESG beliefs regardless of performance potential. What obviously in some cases also plays a very important part are regulations and standards that impose exclusions, for example, like the EU climate benchmark. In other cases, there isn't hard exclusions in the standards but they encourage investors to avoid certain activities. As an example yet again the EU taxonomy requires investors to avoid activities that could cause serious environmental and social harms to call investment taxonomy eligible. So the bottom line is that easy to explain and transparency characteristic of exclusions is a large motivation for employing exclusions when looking at some of the risks that investors face. However, what we also believe and it's not often spoken about is a big motivator for using exclusions is actually reputational risk. We have seen obviously quite a few articles on activists demonstrating about blocking roads to investor headquarters, about headline risk in newspapers with people going through portfolios and then looking at one single investment and comparing those to the set ESG beliefs. So obviously that really does have quite the impact.

John: Yeah, and reputational risk is definitely an important consideration. A good example of where there was a lot of intense pressure lately on investors, not to be seen holding kind of bad names was after Russia's invasion of Ukraine. This led to a lot of investors wanting to avoid Russia, but also a lot of them wanted to avoid not just the Russian sovereign but kind of all things Russian. And a lot of that seemed to be about reputational concerns. And this seemed to have gained steam especially after some of the major sovereign wealth funds added most of the Russian issuers to their restricted lists. But I guess as exclusions get broader they actually kind of start to lose their effectiveness in parsing out the real reputational risks. When you start to dig into the details you can see that there's some important nuances they kind of miss. For instance, one of the Russian companies on a lot of the exclusion lists was a major fertilizer producer. And, yes, the company was controlled and run by Russian oligarch who was actually added to the sanctions lists by western governments. But the company itself is actually based in Western Europe. And even though most of its operations are still in Russia, it really has a global footprint. And almost immediately after that oligarch he sanctioned, he actually resigned as the CEO and gave up his controlling stake. If you look at the other side of things according to some research by Yale that's pretty good, there are still hundreds of non-Russian companies that continue to operate in Russia kind of under our business as usual or at least close to it. And a lot of these companies in the West also continue to source some of their inputs from Russia either directly or sometimes indirectly. So that obviously creates a bit of a disconnect between the Russian companies being excluded but not the companies that do a lot of business in Russia. And so one option to resolve that discrepancy would obviously just be to make the exclusion lists even bigger to capture all the non-Russian companies, too. But I kind of think that's mostly going in the wrong direction. For instance, some companies that are still operating in Russia are selling necessities like food and healthcare products. And I think you have to ask is it right to try and deprive average Russian citizens of these things just because their leaders, who you could argue a lot of them didn't really choose, decided to start a war. In any case, when you start to look at the details the lines between who should and shouldn't be excluded can get kind of blurry. And that's the problem with exclusions. They're really more of a blunt instrument. So to us it makes most sense to use them really when you're doing so only in a pretty targeted way.

Anna: Yeah, absolutely. I mean it clearly gets quite complicated as you highlight it just now. And it definitely is true that most of the time that the exclusions we see are very much like they're about reputational risk. They're more targeted people don't want to own it because it needs to be clean, and that's basically what exclusion can, to some extent, ensure that that happens. For instance, I've seen some research that suggests that controversial weapons are the most common exclusion in most ESG funds, and that lines up with our

own experience. For this example, there are obviously regulatory constraints as well, but you could say from a reputational perspective, it's just not a good fit. And considering a lot of issuers that fail this exclusions are aerospace, that only get a small portion of their sales from controversial weapons. Now the actual exposure can be quite small sometimes. But exclusion almost always applies to any involvement, any percentage sales in the weapons, even if it's not financially very material. So, in short, from a reputational perspective, from that risk perspective, one may use exclusions exactly to manage that risk, as I just mentioned before. It's that way for them to be somewhat certain there is no misunderstanding. There is nobody going through the holdings finding that one line that obviously will then the next day be in the paper. So, by setting these ESG beliefs, you just know that there are no direct holdings in your portfolio. It's obviously the important question is where does one draw the line. Before we move on? There's another one I want to briefly highlight and that's tobacco. Given it's another very common exclusion, and it has obviously quite a bit to do with reputation.

John: Oh, yeah. And thanks for mentioning tobacco, Anna, because that's actually a great segue into a point I was hoping to make which is that often, investing in ESG is generally framed as a way to manage financial risk. So ESG's exclusions can obviously get lumped in with that. The idea I guess goes that if you exclude companies that are involved in particularly problematic activities from an ESG perspective, then maybe you can lower your ESG risk. But the problem I see with that is that managing risk doesn't mean avoiding risk. I mean, if we were just trying to avoid all risk, Anna, our portfolios would just be full of Triple As. And I think tobacco is a great example to illustrate this. As you were saying tobacco is easily one of the most common exclusions we see. And to be clear, most impacts from tobacco are clearly negative. I'm not here to defend tobacco. In fact, just to throw out a few things according to the WHO stats that I've seen, tobacco kills over 7 million smokers every single year plus, and this one always gets me, the secondhand smoke from cigarettes kills over a million non-smokers every year, too. Then you have all the issues around the tobacco industry's coverups, and lobbying, and all that on top of it from the social side. And not to get into the weeds too much here, but tobacco also creates some pretty significant if underappreciated environmental damages. First tobacco itself is an agricultural product so it creates all the issues around land use, water use, pesticide use, and so on that other agricultural products do. For example, I think right now, growing tobacco takes up over 5 million hectares of land about the size of the entire country of Zambia, and much of the tobacco growing is actually in Africa so it's a good analogy. And this is land that could be used to produce food or grow forest or something like that. Also, cigarette filters are one of the most common forms of plastic waste found in the environment. This isn't just regular plastic waste either. The filters' job is to collect toxins, so these filters they're plastic, laced with highly concentrated poison. And this poisons then leech out quickly when the discarded filters get wet. And the filters themselves are pretty easily mistaken by fish, birds, and other animals for food, which is a lot of information. But I'm saying all this just to make clear that from an impact perspective, I'm not going to defend tobacco. That said, these ESG issues around tobacco are largely known, and they're largely baked into the company's credit ratings already. And despite all those ESG issues, tobacco companies do tend to have pretty solid balance sheets and good cash. The barriers to entry in the tobacco industry are actually pretty high, for obvious reasons. And while it may be true that the customer base is slowly shrinking, that decrease in customers is fairly predictable, and something that we can model out. And in the meantime, all those customers tend to be pretty loyal and relatively price incentive. You also on the flip side have more companies that are kind of pushing into these combustion list products that alleviate slightly some of these negative impacts, too. So which is all to say that from a purely risk perspective, not impact but risk. You're probably getting paid for tobacco's ESG issues. In fact, you could argue the reputational stigma associated with tobacco industry means that you actually might get an extra premium, sometimes, on top of what you need just to compensate for the risks. So if you don't care about impact or reputational issues if all you really care about is financial risk, I have to say it, some tobacco bonds can actually be a good source of

risk adjusted return. And so if you exclude tobacco entirely, then you have to look for those returns elsewhere. And to get them, you might have to increase your overall risk even if your ESG-specific risk is lower. Like as a debt investor what is less risky overall? A low levered tobacco company with a lot of well understood ESG issues and solid and predictable cash flows? Or a higher levered tech company with fewer visible ESG risks but more volatile earnings? Again, this isn't to say there are no good reasons to exclude tobacco. I'm just saying that managing financial risk might not be one of them.

Anna: All right. My head's spinning [chuckle]. Thanks for that, John. That was quite a lot of information, very interesting. You just mentioned impacts and I just want to zoom in a little bit on impact because it's an important part, obviously, of what we do here at PGIM Fixed Income. There is an important relationship between impact and reputation. Maybe not the definition of impact that you'd be expecting, but it currently does seem that an impact reputational risk has is an increase of the number of exclusions used or as John -- John's got this great word called the exclusion creep, but basically, the increase of number of exclusions used to ensure that there's no way an investor holds something that is against set ESG beliefs. But what is interesting, John, if you could perhaps expand a little bit more on how there's a different way of defining impact on how we look at impact.

John: Sure. It's correct, the final reason to use exclusions would really be around impact. And impact can definitely be related to risk, but it's not the same. This is something the ESG market sometimes gets confused. But I think the tobacco example illustrates pretty well that impact and risk aren't always the same thing. From an impact perspective, I think exclusions could make more sense. But just when you're dealing with reputational risk, the details and the nuances matter. And the problem is that evaluating impact is actually pretty complex. So, again, a blunt instrument like exclusions might not always be the best way to tackle them.

Anna: Yeah, absolutely. I mean excluding an entire sector is not necessarily the best way to disassociate your portfolio from a specific problem. So not only do you lose your seat at the table, but more importantly you miss that transition that's very much needed. But at the same time we also, as investors, we need to focus where the demand side is, where the development is, and who wants what. Optical exclusions might limit exposure to industries critical to world economy. So I think to make that a bit more real, John, could you mention a few examples?

John: Yeah, sure. I think that's a great point. Exclusions that kind of look good from an optics perspective in your portfolio might limit the exposures to industries that are actually pretty critical to the world economy. And sometimes even to the environmental transition. For instance, steel is a pretty high emitting sector, but it's also pretty crucial to a lot of global development. I don't think society's going to do without steel anytime soon, and it's actually pretty important to the transition, too. Most of a windmill is actually made out of steel, after all. So I don't think our society can do without it, but right now there are limited options for how to decarbonize steel. One of the best options it seems is to use green hydrogen. But right now the world supply of green hydrogen is essentially close to nonexistent. And it's going to require a lot of investment to scale up that supply of hydrogen, and also to make the steel plants that are equipped to use it. And that investment's not going to pay off tomorrow, it's going to take years and years. You're talking more 20-25, 20-30 before you actually see significantly lower emissions. If you're making these investments now you kind of have to be patient. And so if we just kind of divest from all the steel companies because they have high emissions intensity, we would actually potentially slow the transition because we keep them from making those investments. And so the kind of the point is, it's important to consider the real economy impacts of an exclusion, and not just what it does optically to improve one or two metric in one portfolio.

Anna: And to be fair, I don't think I've seen that many exclusions on steel specifically. Although, and I mentioned briefly before, I've definitely seen exclusions more, and more exclusions, in fact, aimed at reducing the portfolio's carbon intensity. And you can imagine that will certainly affect some steel companies. But what I do see more often are exclusions around fossil fuels, mostly coal. But also sometimes different types of oil and gas like oil sands, arctic drilling, sometimes we even get exclusions on the entire oil and gas sector. Now, in general, there's a huge focus on energy and reducing the overall footprint using exclusions. But at the same time, we also see that there's obviously that desire of harmonizing exclusions across different asset classes where, often, investors start off with equities. And those set exclusions then spill over into fixed income. But the structure of equities' fixed income are two different things, and it's definitely not a one size fits all. So when it comes to the real economy implications of energy exclusions, what are your thoughts, John?

John: It's clear that to achieve 1.5 degrees or even two degrees of warming, we definitely need to phase out fossil fuels. So fossil fuel producers have been feeling a lot of heat from investors lately, excuse the pun. And that's kind of worked. I mean there have been noticeable drops in the amount of investment in new fossil fuel supplies, especially in Europe and other developed markets. But the fact is that even in a 1.5 degree scenario we're not going to stop using fossil fuels immediately. They need to be phased out over time. And until that happens, it would actually be pretty bad for society if supply were just to completely dry up all of a sudden. We're kind of getting a taster of what that would be like in Europe right now following the invasion of Ukraine. So, yeah, I mean you can definitely use divestment as a way of pressuring fossil fuel companies to speed up their transition. But I think it's important to notice that supply is really only half the problem is I think you were kind of alluding to, Anna. Because what about all the companies and products that use the fossil fuels? There's a lot of talk about oil companies, but almost no one is excluding the auto sector, even though road transport consumes half the world's oil. And I think airlines are another 8 or 9% of oil consumption, and they generally get a free pass too. So I think unless demand side companies start to face the same pressure as suppliers, cutting off fossil fuel supply is probably just going to lead to these price spikes we're seeing which just generates a lot of pain, and, ultimately, political backlash that could compromise the whole movement. Again, just look at the calls right now, the cap energy prices, and cut environmental fees, and increase oil and gas production, resulting from the high prices of energy.

Anna: True. But I mean there's also a lot of development. For example, I'm an electric vehicle driver, and I've seen a lot of new electric vehicles hitting the road. So there's car companies switching to producing EVs. And, at the same time, big airlines are talking about sustainable aviation fuels working on planes that run on batteries, hydrogen what have you. So how do you see that then?

John: It's true that car companies, they're rolling out more and more EVs. The problem is that it's just still not nearly fast enough. So including hybrid, global EV sales are something 6.6 million cars in 2021. Which is double the amount in 2020, I think, which is great. Six point six million electric vehicles, but another 60 million or so cars were sold that still have internal combustion engines. And stepping back further of the roughly I think 1.4 billion cars on the road right now, only about 17 million are electric yet. And under current policies that I've seen recently, the IEA estimates only about 20% of new cars will be electric by 2030. And even if you take into account all the various pledges that are out there, the IEA's saying this might be 30%. But in the IEA's net zero scenario it needs to be 60%.

Anna: Yeah, and then we're not even talking about the carbon footprint of actually manufacturing the EVs, which is obviously quite a task.

John: Yeah, true, and those emissions can be significant. I think a lot of times the battery alone can often double the emissions from making the car, and the bigger the battery usually the more the emission. But I mean that said, the emissions from the battery are still considerably less than the emissions from driving a non EV usually. And as battery manufacturing plants start to use more renewables, and recycled materials to make the batteries, that footprint is totally shrinking. But I agree with you, EVs aren't a panacea. They have a host of other issues, it's really not just about GHG emissions, but we probably should say that for another day.

Anna: [Chuckle] Yeah. I've got a lot of interest in EVs. But, indeed, let's go back. What has this got anything to do with oil and gas exclusions, please?

John: Well, we're talking about car companies and airlines making changes, but not doing it fast enough. And actually nowadays a lot of oil and gas companies actually have set net zero targets. The problem is that most of these targets so far have only covered their own operation, by which I mean kind of the emissions that happen when they're pumping the oil out of the ground, or refining it. But, of course, in the case of oil and gas, most of the emissions aren't from extracting it, they're from burning the oil and gas down the line. And the catch is that burning oil and gas is done by the customers, not the companies, themselves. So most of their targets haven't covered these what we call downstream Scope 3 emissions. But that's starting to change. There are more and more oil companies that are starting to set somewhat meaningful Scope 3 targets. An organization I particularly like called transitions pathway initiative, has recently found for the first time that at least three big oil companies net zero targets could actually be aligned with the 1.5 trajectory. In most cases though, their short term targets are still not aligned and their strategies for actually achieving those long term targets remain vague. So I wouldn't declare victory yet on that. But it is something. And going back to your point, Anna. Let's compare that to the airline industry. Here, again, transitions pathway initiatives still only considers three of the companies it rates to have long term targets along with 1.5 degrees. So the same number of companies in that industry as in the oil and gas industry. And a lot of the airline strategies are similarly vague. They seem to rely a lot on kind of offsets, planting trees, and biofuels, that all have their own issues. So, again, I think the demand side industries just need a much closer look, too.

Anna: Yeah, absolutely. But that all sounds maybe a little bit depressing. But there are a lot of good things happening as well, so maybe we should start looking a little bit more to the solution side of things because in addition to exclusions, what we do also see a lot of is inclusion rules. And what that means is that we've got clients setting rules seeking to have a minimum of the portfolio invested in green bonds or other types of ESG-labeled bonds. But, for today, we're going to focus on green bonds and in case people aren't overly familiar with this market, there are basically two main types of ESG-labeled bonds. The first is the use of proceeds bonds where a company in theory can only spend the proceeds it raised from issuing the bond on specific types of projects. And these would be green projects in the case of green bonds. And the second is a sustainability linked bonds, or SLBs, and they're a little bit different. For these companies they set some sort of ESG targets. And failure to hit these can cause the cost of capital increase. Like I said, a green bond is the first type. It's the use of proceeds bond. What that basically means is that it's proceed should only be used by the issuer to fund eligible green, i.e., environmental projects. Before we go any further, I think it's worth noting that all these bonds are self-labeled by their issuers. So the International Capital Market Association also known as the ICMA, has put out guidelines and principles that these bonds should adhere to. And we see that these are used a lot by our clients as the organization to follow. There are some vendors that will assess if green bonds meet the ICMA principles. But those principles are very high level, and not very prescriptive. So the vendors are not officially sanctioned as verifiers in any way. And not every green bond issuer hires one anyway. So, I guess more importantly ICMA doesn't have any regulatory authority to enforce

its principles. So issuers don't always follow them perfectly. The EU is working voluntary standard for green bonds, but issuers still won't have to use it. So they can still call their bonds green bonds if they don't follow it. They just can't say they meet the EU standards. And it's expected that not all green bonds will meet them. So, in fact, the EU recent issuance of green recovery bonds wouldn't have met its own standards. So it's kind of "buyer beware." Just because a bond is called it doesn't mean it's at all impactful, and to add to that, I guess it will come to no surprise that it is the more established companies that can come up with green bonds because they may be able to market it. They may be able to spend some money on it. I think that's an important point to raise.

John: Those are all great points, Anna. And we definitely don't treat all green bonds equally. We actually have a dedicated framework just for them, exactly to assess their impact, as you were saying. And when we do that we're looking at it through two interrelated lenses. The first one is credibility. Obviously, one aspect of credibility is will they do what they say they're going to do? Because, sadly, I have to say we have seen a few green bonds in the past where the issuer just didn't fund the projects they said they were going to do. But, more importantly, with credibility we're looking to see is this actually part of an overall credible transition strategy? Or is it really more just of an opportunistic move. Which means that our analysis of a green bond actually starts with an analysis of the issuer. Because we want to look at its transition strategy overall. And then we look at where the green bond fits into that strategy, or in some cases doesn't fit into that strategy. And then next, after credibility, we look at additionality. Sometimes, unfortunately, green bonds are really just funding what the company already does. And I don't mean to say that the company's bad in all those cases. I mean, sometimes, they are. But a lot of times they're not. It's just that it makes us question what is the value of the green bond versus the company's other bonds? Because if the company is already really green itself, we could just buy those regular bonds, too. And probably get basically the same thing. And then other times we'll see companies issue a green bond because they're going to tack on a little green. They're really not getting rid of any of the brown stuff that they do if you will. And, sadly, a lot of times, the bond is mostly being reused to refinance projects that have already been done. So, this is something we also see fairly frequently. And sometimes that refinancing mechanism can look for projects that are as much as three years old and sometimes even longer than that. But what we really want to see here is that the bond is funding a kind of a new additional transformation from brown to green. The brown is going away, and the green is replacing it. And then after we've assessed credibility and additionality, we combine that to come up with an overall view on the green bond's impact. And then based on that, we assign an uplift to the green bond relative to its issuer on our own ESG impact grading scale. Meaning that the issuer might be rated one thing, but this particular bond will be rated higher than that. Even if all the other issuers bonds are still rated lower.

Anna: I think that "if an uplift" part is very, very relevant. Could you say a little bit more about how that actually works?

John: Sure, yeah. And as I was kind of hinting at, we're a bit skeptical of these bonds to be honest. They're not all bad but you really have to think about it. And in theory, in our system on a hundred-point scale, we can give them an uplift of as much as 40 points. But in practice, only 4% of the green bonds we've rated so far have an uplift of more than 25 points. Which compares to 9% that get a zero uplift, and the vast majority of these bonds over 70% we rate kind of below 25 which means we think they have really only a low, or best and medium impact. I should also note -- not that we're talking about in great detail here, but so far we're even a bit more skeptical of sustainability linked bonds, the ones where the coupon steps up if you don't meet a target. The highest uplift we give in SLB is five points in our system. And pretty much all the ones reviewed except for a handful of exceptions haven't gotten any uplift. And the reason for that is that the targets for those bonds are usually set at the company level. So, we're already reflecting the target on our issuer level

rating. And a lot of times, the bond itself isn't that solid. The actual cost of the company of missing its target tends not to be that significant when you consider the size of the penalty relative to the firm's overall cost of capital. And also how long that penalty applies which often is only six months, 12 months at most. And also a lot of the time, unfortunately, the KPIs the company is using for their targets don't really touch on what's most material for the company or the targets themselves just aren't that ambitious. And I would note that ICMA does seem to have recognized this as a problem because they just put out a bunch of guidance on SLBs which we're hoping will correct some of the issues I just mentioned because they seem to address them head on.

Anna: I guess we can safely say that the quality of green bonds can vary a lot. You and I have also talked about what we see as good green bonds where there is indeed an uplift. So perhaps you can give a flavor what according to you good green bond, what it looks like?

John: Yeah, sure. Let's stay positive.

Anna: [Chuckle] Exactly.

John: So one of the better green bonds we've seen was issued by building materials company. And this is an issuer that was already pretty focused on reducing its environmental impact both from its own operations like when it's making stuff, but also on the product that it's selling. And they have a pretty big focus on both sides on renewable power and recycling. So both in their operations and also in terms of their products. And the company's been moving a lot more into making greener building products as well as I kind of mentioned the materials that actually go into windmills and other types of renewables. So on the building product side, for instance, they're moving into what's called mineral wall installation which is made mostly of recycled materials, and it's also more effective than traditional fiberglass at doing insulation. And it's naturally flame resistant which means it doesn't have to be treated with toxic flame retardants made out of forever chemicals, if you've heard the term. And so this company's green bond just funded that expansion. They're funding kind of the plants that they're going to be making this mineral wall insulation. Insulation of renewable power for their plants, and also expanded sourcing of recycled materials to feed those plants. So the bond clearly fit into their transition strategy, and the strategy itself was pretty good, and really it was kind of moving them from brown to green.

Anna: And what would you say a low impact green bond looks like then?

John: Well, there's a lot more to choose from here so there's a wider variety but we've seen a lot of green bonds where, as I said before, the company itself isn't particularly sustainable. And it really just doesn't have a credible transition strategy. So we don't really see how this bond is really going to move the needle at the company level. Or we've seen companies that fund things that really don't seem all that new. In at least one case, I saw a company that was using the proceeds from the bond to fund what seemed to be just kind of regular ongoing operating expenses. I mean it was for a greener product but really just kind of funding their normal cost of goods sold. And then there are some companies where there's just a limit to how much they can transition. So, for instance, we've seen some of the -- to use the term, junk food, junk food companies, issuing green bonds that fund the decarbonization in their operations and potentially maybe to increase the recyclability of their packaging. And it's great. It's great that they're trying to improve their operations and their packaging. But at the end of the day they're still selling junk food. So if we give the bond an uplift, there's just going to be a limit to how high we're going to rate it. And that's why we start looking at the issuer first and then look at the bonds. So I guess maybe just to wrap some of this up, I'd say if your goal with exclusions is specifically impact, then one option is actually not to base your exclusions on what the

company's doing, or what its activities are. Instead, to base it on an assessment of the issuer's overall impact profile. As I sort of was alluding to before when we were talking about uplift. At PGIM Fixed Income, we have a proprietary ESG impact rating that's designed explicitly to consider an issuer's impacts, and this is whether or not those impacts are necessarily financially material. They're really about impact not risk. And the idea is they can balance the positives and the negatives into one overall holistic assessment of the impact. Once we have that, rather than exclude issuers based just on what they do or what sector they're operating in, we can instead exclude them based on how well they're managing their negative impacts and enhancing their positive impacts by using the ratings as our indicator. That way, you can kind of still allow companies in that are say, in the energy sector but are doing a good job transitioning. And at the same time, you don't just give a free pass to an airline that's lagging behind. And I end by saying that ultimately when it comes to exclusions, an ESG, in general, it's really about setting clear long term ESG goals. If you're going to use exclusions, I think it should be clear what you're trying to address with them, and you should make sure you're targeting that correctly to achieve your goals.

Anna: Absolutely. And to close off on that, investors need to be very explicit about how they want to manage -- going back to the start of our conversation, how they want to manage reputational risk, consider the longer term reputational risk that could arise, not just short term, and be mindful of avoiding blind spots. Exclusions have been around for quite some time, perhaps not sophisticated enough to deal with today's problems. You could run out of things to invest in. As John mentioned before, has that great term "the exclusion creep." And focus on demand not just supply. Solutions need to be more holistic. When it comes to financial risk, exclusions are likely not the best way to manage this, because it's not about eliminating risk. It's about being compensated for amount of risk you're trying to take. So there's always going to be financial risk, and that needs to be better managed overall. I want to conclude with -- there is no easy fix for something complicated as global warming, scarcity of resources, hunger, just to name a few. I think most options available today involve trade-offs and virtually every issuer could be doing better, even the ones in the so-called good industries. What we do believe is that a complex problem, it deserves a complex solution. And, obviously, we're here to help you align your ESG beliefs with your fixed income portfolio. So, thank you for listening today, and please make sure to look out for future episodes of *Fixed on ESG* available wherever you get your podcasts. Thanks very much.

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