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TRANSCRIPT

ESG Now Podcast

“Can Airlines Go Green?”

Transcript, 17 May, 2024

Gabriela de la Serna (00:00):
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 Gabriela De Lana, and I am your host for today's episode. And on today's show, we're talking once again about the energy transition, but this time we'll be focusing on the airlines industry. We will tell you what a road ahead looks like for the industry. What options are available to airline companies to heat their net zero goals and why investors should care about it. So let's jump right in.
(00:46):
I am based in London and here in Europe, as temperatures rise, people are getting ready for their long awaited summer holidays. Last year, a third of total commercial flights took place in the summer months, so it's really prime time for airline companies. But perhaps as you managed to book your low cost flight to Majorca and are tempted to book a second one, you might start to experience what people now refer to as quote flat shame or the feeling air travelers experience when aware of the climate damaging consequences of their journey. Because yes, the aviation sector accounts for 2.5% of global carbon emissions, but as we discussed last year in an episode titled a Turbulent Plan for Green Aviation decarbonization in the airline industry is actually starting to take off. And sure there has been some turbulence in the process and some airlines are getting sued by the EU as they allegedly claim they are greener than they actually are.
(01:50):
But across the pond, decarbonization is full steam ahead because in the US the Biden administration just released its new rules on sustainable aviation fuel as part of broader efforts by the government to drive innovation in sustainable fuels, reduce aviation emissions, and promote the use of cleaner energy sources in the industry. So I wanted to find out how fast and how realistic airlines decarbonization plans seem to be, and whether these plans mean soon we won't need to worry about flight chain anymore. In last year's episode, we focused on sustainable aviation fuel or SAF as one of the more effective ways aviation industry can decarbonize itself. But SAF isn't the only way airlines will decarbonize. There are electric planes, hydrogen powered planes, there are efficiency protocols and carbon credits. And so we have all of these cool sounding options. And the question for an investor is, which one is the most likely to be viable and which one the least, how soon will one become available versus another? To help with these questions I have with me my colleague Mike Ddo, who covers the aviation industry for us, and yes, also happens to host the podcast occasionally. I put questions to Mike.

Michael Disabato (03:10):
I think before we get into the viability question, we have to think about what do airlines as companies care about, they care about right now operating with the lowest cost possible? And how does an airline keep its cost low? Well, they burn less fuel than their competitor, and they're more efficient than their competitor. I don't mean emissions efficiency there, I mean reliability. I mean, they're not delayed. They're moving their plane from one place to the other on time, and they're not sitting at the airport waiting for maintenance to be done and for pilots and air attendants to get into the plane for it to get moving. So they want to keep their operating costs low. Now, what do investors and airlines probably care about? Well, some investors care about the

financial impact of how an airline does or does not manage its operating costs. Well, some investors care about the decarbonization of aviation because they want to align with their own individual climate goals.
(04:08):
Lots of investors care about both. Whatever the ultimate goal of these investors is, what I think they have to consider now, and this is where we get to the viability question, is the fact that due to oncoming regulations, these operating costs that the airline industry has to deal with and their environmental performance are now becoming intertwined. And that's because there's a number of regulations that are coming onto the market that are trying to reduce the aviation industry's emissions. Some of those are regional and they're, for example, cap and trades and others are massive and global. For example, the International Civil Aviation Carbon Offsetting and reduction scheme for international Aviation. I know that's a mouthful. I'm not really going to get into the details, but you just need to know that that's one of the bigger ones that are coming online and in some cases has already come online globally. So that's why airlines now have to care about their emissions. That's why most all investors in the airline companies have to care about their emissions. And that's why we need to understand of the technologies available for the airline industry to reduce its emissions, which are the most realistic and which are the most possible to happen right now today

Gabriela de la Serna (05:17):
As things stand, companies have three main tools or levers to achieve these. And Mike will be telling us more about each of these. But just as a recap, first we have the low hanging fruit, which is efficiency improvements, so acquiring more modern aircraft that consume less fuel, for example. Secondly, carbon credits, which are already used by companies, and in fact, 70 out of the hundred largest passenger airlines by revenue are already part of the industry's pilot offset program. And finally, we have SAF, which is also expected to be widely used by the industry, and currently two out of five companies already have targets to use a defined percentage of this fuel by 2030. And last time we talked to Mike, we really focused on this third lever, SAF being the main driver of how the airline industry can decarbonize. So now fast forward to 2024. I wanted to ask Mike if this is still true.

Michael Disabato (06:20):
Yes, I do still think SAF is the most important tool the airline has in its toolbox to lower its emissions. And I'm agreeing with the industry there. I think there is a lot of noise about how there's not enough SAF supply for it to be realistic. It's going to be too expensive. And I think it's not that that's not true right now, but that doesn't negate the importance of SAF in the airline industry's toolbox. And I'm going to tell you why. The reason for that is because to lower any kind of transportation emissions, you need to have a new design or you need to have an advancement of technology that makes the old design even more efficient. So let's think about a new design for an aircraft for a second. It takes a really long time to design a new aircraft and get that aircraft ready for flight on a commercial commercial scale, on commercial scale, meaning they can pump out around a hundred planes a month if all goes well.
(07:17):
Now, Boeing has showed us what happens when you try to rush this process with the issues that the Max series has seen and the 7 87 has seen, and this might be because Boeing really tried to change its generation of aircraft within a decade. It tried to go from an old 7 37 generation to the newer 7 37 generation, which obviously has had its disasters and catastrophes associated with it. So because it is so difficult to create a new airplane and then to get that airplane up to snuff with regulators and to be out on the market, you need a way to lower your emissions by using the current aircraft design. SAF is what they call drop in fuel. It means you can mix it with the jet fuel that we use right now, and it works perfectly when done. So there's a bit of tinkering that you need to do with your aircraft, but not that much.
(08:09):
And then you cut your emissions by a huge amount. That's why SAF has staying power. Now, who is going to be able to use SAF? It only is about 1% of the supply right now, but some airlines are much further than others in their process of sourcing and securing SAF for the future. Now, at the moment, around 61% of airlines in our

coverage say they've already begun blending SAF with conventional jet fuel for some of their flights, a very small amount of their flights. Yet only 41% of those carriers have published a target to use a defined percentage of SAF by 2030. Why is this important? Well, those that are not actively working to secure supplies of SAF might be at a disadvantage in the coming years compared to airlines that are already shoring up supply. If you're an airline that is not efficient and you haven't figured out how to get SAF in the future, you're going to have a hard time lowering your emissions.
(09:05):
Now, there's one other way that you can lower your emissions in the short to medium term that might be even more available than SAF. Those are efficiency procedures. Efficiency procedures are things like getting new aircraft. Now, we already talked about the fact that it's very difficult to have a completely new aircraft onto the market, but if you want to get some of the newer aircraft are already on the market, then you up your efficiency by a decent amount. There's also upgrades to your operations. This includes the airport's ground service equipment, and it includes route optimization. And those are things like more carbon friendly fight plans and reducing time on the runway. These aspects are a way where you can reduce your emissions using the aircraft you have. You don't even need to source SAF, but they're not going to have such a massive chunk of emissions reductions that SAF is going to have. That's why SAF was going to remain the key to lowering the long-term emissions that the aviation industry, that's why all the airlines are focusing on it. That's why all the investors are focusing on it. That's why it's the most important thing I think, for the future of aviation in a low carbon world.

Gabriela de la Serna (10:21):
So it seems that SAF could be a viable tool for companies to reduce their carbon footprint, but the extent to which they will be able to rely on it depends on the supply and commercialization of this fuel. So we're still yet to see if oil and gas refiners are up to the challenge and willing to ramp up production of the fuel. And in the meantime, it seems that aircraft upgrades and operational improvements will remain the efficiency bread and butter for airlines. So yes, you can expect that your economy class is likely to get even smaller if that's even possible. And so beyond SAF and efficiency improvements. And before we get into our third lever, I was also curious to find out if there are new options in the menu for airline companies wanting to step up their decarbonization efforts. I asked Mike to tell me more about other flashier and perhaps more experimental options like hydrogen propel planes or electric aircraft, and whether these still belong in a sci-fi movie or perhaps could be coming our way very soon.

Michael Disabato (11:27):
As someone who cares about the collective emissions of our society, I would love to see hydrogen propelled planes out there because liquid hydrogen emits no CO2 during its combustion, and it can be produced with near zero carbon emissions if it's made using renewable electricity. That's called green hydrogen. So it would be amazing. But the problem is, is that hydrogen propel planes require a new design. I already talked about the issues with the new design, and it's really probably going to take until about 2050 or 2060 till we see a lot of hydrogen planes out there. Airbus said it wants to have a wide body hydrogen plane by 2035. They've recently walked that back. But the issue is with hydrogen is again, you need a new design. It's also really expensive. And so it's probably only going to be suitable for short journeys at this point with turbo prop planes, which are the propellant planes for a number of years going forward.
(12:25):
And if we need to cut our emissions. Now, I and industry experts along with me might say hydrogen propelled aircraft are not the tools that we should put all of our money into at the moment. Electric aircraft are even more difficult than hydrogen propelled aircraft because electric aircraft require you to upgrade the technology of a battery in order for it to have the energy density needed to put a plane into the air for a long period of time. Where electric aircraft is going to probably find a niche role is in the small and short range passenger aircraft markets, such as flight between small island nations. Now, these fights account for less than 15% of the industry's total departures, but this is an important source of connection and income for small island nations

and airlines want to be a part of that connection. Air Canada, air New Zealand, American Airlines to Delta SAS and United have all announced plans to purchase electric aircraft to be in use by 2030 according to company disclosures. So electric aircraft are going to be in the air or companies hope they're going to be in the air. It's just if we're looking at, if you're an investor that's like, well, what technology is really going to have the largest impact on the aviation industry? If I am invested in a company that really has high emissions and I want to bring them down, what's going to be the most impactful technology? I don't think it's going to be liquid hydrogen propel planes. I don't think it's going to be electric planes until around 2060.

Gabriela de la Serna (14:00):
So hydrogen and electric planes are not as futuristic as I thought, but as Mike told me, the problem is not so much the technological progress that has been made, but the amount of capital required to roll this out. Because as we know, the airline industry is a high volume low margin business. So unless there's an industry-wide orchestrated effort to invest in the necessary infrastructure and safety assessments that would make hydrogen planes more accessible, airlines might just not make this change a priority in the coming decades. And so the bad news is that unless you're lucky enough to be island hopping on an electric plane sometime in the future, some of that flight shame that we talked about earlier might still be legitimate because SAF will only be able to partially reduce some of the airlines direct emissions. And so as we run out of options, carbon credits come to the rescue or do they, I didn't want to end this episode without getting an update on what's happening with carbon offsets and given the complexity to adopt other tools. I ask Mike whether they still remain the airline's favorite option.

Michael Disabato (15:16):
No, I don't think it's the airline's favorite tools anymore because it's caused them. It's caused so many people, so many headaches. But I think there's one big reason why that's going to change. I mentioned it in the beginning remarks for this episode that programmed by the International Civil Aviation Organization, the UN's international governing body of airlines called corsea. And I'm not going to get into the full details of Corsea right now, but basically in short, what Corsea says is that airlines have to cap their emissions at 85% of their 2019 levels. Now, how are they going to do that? Well, we just met the whole episode talking about that, but how are they going to do that this year? Because course phase one of course has already began this year. So the way they would do that is they would buy new planes. But what if, for example, a massive plane manufacturer is having problems and they can't deliver the planes that they promised, or you already have a young fleet and you can't just go out and buy new planes, you've already just bought new planes and you need to somehow get your emissions down.
(16:19):
Well, other than efficiency programs, you can use carbon offsets. COR says you can use carbon offsets. And according to data from MSCI, carbon markets, 50 airlines have already bought and then retired some carbon credits, meaning they've taken them out of the system, you can't trade or sell them with anyone else. They're done. You say, I've accounted for the emissions by retiring them. Delta Air France, KLM and EasyJet have retired the most carbon credits. Now, the reason that that's a good thing that Corsea has got behind the carbon credits market is because they're going to be an eligibility body for the carbon market. There's this thing called the corsea Technical Advisory Body, and they get to say, you're a good carbon credit or you're a bad carbon credit. And the body's not just a rubber stamp. They're not just saying, you're good, you're good, you're good.
(17:08):
In 2021, it rejected all three of the land-based carbon credit programs, including forestry focused RED plus, which is a very famous forestry based carbon credit program. And as of February, 2024, corsea has reviewed 16 programs for participation in the phase one of its program that's happening this year in 2024, and it's approved eight to supply credits through 2024 to 2026. So what this means in some is that course could become a legitimizing force, will likely become a legitimizing force, let's say, for the carbon credits market because

airlines need to rely on these credits in order to cut their emissions and be in compliance with the UN's directive.

Gabriela de la Serna (17:52):
So airlines are part of a hard to abate industry for a reason, and there's no evident or straightforward single path towards decarbonization. And so in the meantime, it looks like airlines will have to continue to rely on efficiency improvements and carbon credits for most of the remission reductions in the near future. But regulation is catching up and in some cases it's coming with a carrot like the IRA tax credits for SAF and airlines that take advantage of these incentives to adopt new technologies might be able to avoid the turbulence as we approach the 2050 net zero deadline. And that is it for this week. A massive thanks to Mike for his take on the news with an EOG twist. And thanks to you for tuning in and sticking around. And if you enjoy listening to us every Friday, go ahead and click the subscribe button. Thanks again and we'll catch you next week.

Speaker 3 (19:02):
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