

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 meet 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 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 flight 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 flights 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 Corsea 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](#)):

The M-S-C-I-E-S-G Research podcast is provided by MSCI, Inc. Subsidiary M-S-C-I-E-S-G research, LLCA registered Investment Advisor on the Investment Advisors Act of 1940. And this recording and data mentioned herein has not been submitted to nor received approval from the United States Securities and Exchange Commission or any other regulatory body. The analysis discussed should not be taken as an indication or guarantee of any future performance analysis, forecast, or prediction. Information contained in this recording is not for reproduction in whole or in part without prior written permission from M-S-E-I-E-S-G research. None of the discussion or analysis put forth in this recording constitutes an offer to buy or sell or promotional recommendation of any security financial instrument or product or trading strategy. Further, none of the information is intended to constitute investment advice or recommendation to make or refrain from making any kind of investment decision and may not be relied on As such, the information provided here is as is and the use of the information assumes the entire risk of any use it may make or permits to be made of the information. Thank you.

About MSCI

MSCI is a leading provider of critical decision support tools and services for the global investment community. With over 50 years of expertise in research, data and technology, we power better investment decisions by enabling clients to understand and analyze key drivers of risk and return and confidently build more effective portfolios. We create industry-leading research-enhanced solutions that clients use to gain insight into and improve transparency across the investment process. To learn more, please visit www.msci.com.

This document and all of the information contained in it, including without limitation all text, data, graphs, charts (collectively, the "Information") is the property of MSCI Inc. or its subsidiaries (collectively, "MSCI"), or MSCI's licensors, direct or indirect suppliers or any third party involved in making or compiling any Information (collectively, with MSCI, the "Information Providers") and is provided for informational purposes only. The Information may not be modified, reverse-engineered, reproduced or disseminated in whole or in part without prior written permission from MSCI. All rights in the Information are reserved by MSCI and/or its Information Providers.

The Information may not be used to create derivative works or to verify or correct other data or information. For example (but without limitation), the Information may not be used to create indexes, databases, risk models, analytics, software, or in connection with the issuing, offering, sponsoring, managing or marketing of any securities, portfolios, financial products or other investment vehicles utilizing or based on, linked to, tracking or otherwise derived from the Information or any other MSCI data, information, products or services.

The user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. NONE OF THE INFORMATION PROVIDERS MAKES ANY EXPRESS OR IMPLIED WARRANTIES OR REPRESENTATIONS WITH RESPECT TO THE INFORMATION (OR THE RESULTS TO BE OBTAINED BY THE USE THEREOF), AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, EACH INFORMATION PROVIDER EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES (INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF ORIGINALITY, ACCURACY, TIMELINESS, NON-INFRINGEMENT, COMPLETENESS, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) WITH RESPECT TO ANY OF THE INFORMATION.

Without limiting any of the foregoing and to the maximum extent permitted by applicable law, in no event shall any Information Provider have any liability regarding any of the Information for any direct, indirect, special, punitive, consequential (including lost profits) or any other damages even if notified of the possibility of such damages. The foregoing shall not exclude or limit any liability that may not by applicable law be excluded or limited, including without limitation (as applicable), any liability for death or personal injury to the extent that such injury results from the negligence or willful default of itself, its servants, agents or sub-contractors.

Information containing any historical information, data or analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. Past performance does not guarantee future results.

The Information should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. All Information is impersonal and not tailored to the needs of any person, entity or group of persons.

None of the Information constitutes an offer to sell (or a solicitation of an offer to buy), any security, financial product or other investment vehicle or any trading strategy.

It is not possible to invest directly in an index. Exposure to an asset class or trading strategy or other category represented by an index is only available through third party investable instruments (if any) based on that index. MSCI does not issue, sponsor, endorse, market, offer, review or otherwise express any opinion regarding any fund, ETF, derivative or other security, investment, financial product or trading strategy that is based on, linked to or seeks to provide an investment return related to the performance of any MSCI index (collectively, "Index Linked Investments"). MSCI makes no assurance that any Index Linked Investments will accurately track index performance or provide positive investment returns. MSCI Inc. is not an investment adviser or fiduciary and MSCI makes no representation regarding the advisability of investing in any Index Linked Investments.

Index returns do not represent the results of actual trading of investible assets/securities. MSCI maintains and calculates indexes, but does not manage actual assets. The calculation of indexes and index returns may deviate from the stated methodology. Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the index or Index Linked Investments. The imposition of these fees and charges would cause the performance of an Index Linked Investment to be different than the MSCI index performance.

The Information may contain back tested data. Back-tested performance is not actual performance, but is hypothetical. There are frequently material differences between back tested performance results and actual results subsequently achieved by any investment strategy.

Constituents of MSCI equity indexes are listed companies, which are included in or excluded from the indexes according to the application of the relevant index methodologies. Accordingly, constituents in MSCI equity indexes may include MSCI Inc., clients of MSCI or suppliers to MSCI. Inclusion of a security within an MSCI index is not a recommendation by MSCI to buy, sell, or hold such security, nor is it considered to be investment advice.

Data and information produced by various affiliates of MSCI Inc., including MSCI ESG Research LLC and Barra LLC, may be used in calculating certain MSCI indexes. More information can be found in the relevant index methodologies on www.msci.com.

MSCI receives compensation in connection with licensing its indexes to third parties. MSCI Inc.'s revenue includes fees based on assets in Index Linked Investments. Information can be found in MSCI Inc.'s company filings on the Investor Relations section of msci.com.

MSCI ESG Research LLC is a Registered Investment Adviser under the Investment Advisers Act of 1940 and a subsidiary of MSCI Inc. Neither MSCI nor any of its products or services recommends, endorses, approves or otherwise expresses any opinion regarding any issuer, securities, financial products or instruments or trading strategies and MSCI's products or services are not a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such, provided that applicable products or services from MSCI ESG Research may constitute investment advice. MSCI ESG Research materials, including materials utilized in any MSCI ESG Indexes or other products, have not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body. MSCI ESG and climate ratings, research and data are produced by MSCI ESG Research LLC, a subsidiary of MSCI Inc. MSCI ESG Indexes, Analytics and Real Estate are products of MSCI Inc. that utilize information from MSCI ESG Research LLC. MSCI Indexes are administered by MSCI Limited (UK).

Please note that the issuers mentioned in MSCI ESG Research materials sometimes have commercial relationships with MSCI ESG Research and/or MSCI Inc. (collectively, "MSCI") and that these relationships create potential conflicts of interest. In some cases, the issuers or their affiliates purchase research or other products or services from one or more MSCI affiliates. In other cases, MSCI ESG Research rates financial products such as mutual funds or ETFs that are managed by MSCI's clients or their affiliates, or are based on MSCI Inc. Indexes. In addition, constituents in MSCI Inc. equity indexes include companies that subscribe to MSCI products or services. In some cases, MSCI clients pay fees based in whole or part on the assets they manage. MSCI ESG Research has taken a number of steps to mitigate potential conflicts of interest and safeguard the integrity and independence of its research and ratings. More information about these conflict mitigation measures is available in our Form ADV, available at <https://adviserinfo.sec.gov/firm/summary/169222>.

Any use of or access to products, services or information of MSCI requires a license from MSCI. MSCI, Barra, RiskMetrics, IPD and other MSCI brands and product names are the trademarks, service marks, or registered trademarks of MSCI or its subsidiaries in the United States and other jurisdictions. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P Global Market Intelligence. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and S&P Global Market Intelligence.

MIFID2/MIFIR notice: MSCI ESG Research LLC does not distribute or act as an intermediary for financial instruments or structured deposits, nor does it deal on its own account, provide execution services for others or manage client accounts. No MSCI ESG Research product or service supports, promotes or is intended to support or promote any such activity. MSCI ESG Research is an independent provider of ESG data.

Privacy notice: For information about how MSCI collects and uses personal data, please refer to our Privacy Notice at <https://www.msci.com/privacy-pledge>.