

Carbon Footprinting Demystified

Transcript, 14 June, 2024

Mike Disabato ([00:00](#)):

What's up everyone? And welcome to the weekly edition of ESG now, where we cover how the environment, our society and corporate governance effects and are affected by our economy. I'm your host Mike Disabato, and this week we discuss the vital importance of calculating emissions for an investment portfolio, also called a portfolio carbon footprint. Thanks as always for joining us. Stay tuned.

([00:29](#)):

Carbon accounting often centers around the burden of responsibility. Responsibility meaning not only what process emitted the carbon, but who owns that process and who would be impacted if that process were no longer viable in a climate change world. And assigning responsibility might seem easy, but think about it this way. Who is responsible for the emissions of a coal fired utility? Is it the utility itself that creates the energy from the coal or is it the coal mining company that sells the coal to the utility? Is it the consumer who buys the energy from that utility or is it the bank who made a loan to the utility or mining company thus providing a capital with which to broadly expand and develop? Now at times it can be all four, but what is important is those first three actors, the utility, the miner, the consumer, they are tangible actors.

([01:23](#)):

The mining company sold the coal. The utility company used the coal to create electricity. The consumer used the electricity to power stuff with whatever they're doing. There's a carbon value to the tonnage of coal used, and there's a monetary value to the cost of the electricity. But what about the investor that didn't tangibly use any of that coal or its created energy, but they still were part of the equation in the way all those that profit off of production are? What are they responsible for and how would they be impacted if the utility that uses coal all of a sudden becomes unprofitable in both a literal and societal standpoint due to climate change? Well, to understand that piece of the equation, you have to calculate what is called a portfolio carbon footprint, something that is becoming more ubiquitous in the financial market, and that might seem really wonky, but you have to think about it this way.

([02:18](#)):

Without a carbon footprint, a bank, an investor cannot know how exposed they are to pollutive processes at a broad portfolio level. They often have billions of dollars of assets at play and they're spread out in ways that are hard to calculate for a large investor. And what happens if, for example, the banking sector is continuously providing loans to an industry that is at risk of either monetary or physical collapse due to climate change? Must I remind everyone what happens when the banking sector is making bets on things they haven't calculated and so don't understand the risk of, and according to my guest and colleague Carrie Wang, who just finished writing a report called the Carbon Footprint 201, we did the 101 back in 2015. By the way, according to Carrie, the proliferation of the portfolio carbon footprint isn't due to just concerns of climate activists. It's from the fear of suited bureaucratic regulators,

Carrie Wang ([03:15](#)):

Regulators all over the world. They are requiring investors to measure and disclose their portfolio carbon footprint. And Europe is moving particularly fast on this front, and we have seen regulation schemes such as

the Sustainable Finance Disclosure Regulation, the SFDR and some others, and also APAC is catching up as well. But instead of creating their own set of rules, they tend to follow some common disclosure frameworks such as the TCFD or SSD,

Mike Disabato ([03:50](#)):

The T-C-F-D-R-I-S-S-B acronyms. Yes, but part of a very real international initiative to get more investors to set up carbon emissions accounting systems for their portfolios. And Carey is very right about the EU leading the charge. There are four globally recognized voluntary initiatives and three pervasive regulatory schemes for portfolio carbon footprint, which are all in the European Union and have been enforced as of April, 2024. And this is all because regulators are worried about what could happen to the financial sector due to climate change if it does not account for its exposure to carbon emissions. And regulators are not alone in that desire or concern. Of course, there's also a contingency of stakeholders and clients that are pushing banks, especially to better disclose on the carbon emissions associated with their loan book because up until relatively recently, banks that finance fossil fuel projects, let's say, haven't been reporting on those projects as part of their emissions profile.

([04:51](#)):

Instead, they focus on the direct emissions that they are associated with, which obviously aren't much. You just have buildings with computers in them. For banks, this can paint an inaccurate picture when it comes to financial risk due to climate change. If your loan book is overexposed to pollutive projects in a region, seeing a decarbonization shift toward new technologies, let's say, or a regulatory push to lower emissions without proper carbon accounting in a bank's risk management system, and the disclosure of that carbon accounting, the bank or the asset manager, I want to include that as well in the investor profile is flying blind in a way, but with a calculated number. These investors can look at their portfolio and make a plan based on how exposed they are to carbon emissions.

Carrie Wang ([05:37](#)):

So whether they want to manage the risks of their portfolios, reducing exposure to carbon intensive assets, or they want to invest in some energy transition projects where they have some specific climate targets they want to reach. So they use the baseline to set targets as well.

Mike Disabato ([06:00](#)):

That is why this is important. Take the Hong Kong born multinational bank HSBC after it quantified its loan portfolio emissions, it was able to set a detailed climate target that aimed to reduce the absolute emissions for seven carbon intensive sectors that it made loans to. This includes oil and gas cement, metalworks, aviation, automotive, and the thermal coal mining industry. After HSBC identified these industries, it now plans to engage with the companies within these sectors to help them transition their operations or actively limit investments in the hard to abate pollutive sectors that they were invested in. It wouldn't know to do that and shareholders wouldn't be able to hold them accountable on those plans if it didn't conduct a transparent and comprehensive carbon footprint strategy. So all that, the need for our financial system to have a quantifiable disclosure for what can happen with climate change to their assets is why carbon footprint is important. Now, why is it so complicated? Why did we need to put out a guide on how to do that calculation? Well, because there is not yet a standardized way to calculate the baseline portfolio emissions number. As with all accounting, the devil is in the disclosures.

Carrie Wang ([07:23](#)):

It does matter in the process what calculation inputs investors are using for footprint and also what sort of adjustment they may make to ensure the results are meaningful. For example, a key set in calculating portfolio carbon footprint is to attribute a portion of the portfolio company's greenhouse gas emissions to the investor. And we need to know how that portion is determined and it is based on how much the investor owns of the company.

Mike Disabato ([08:04](#)):

Let's say a portfolio owns 3 billion US dollars worth of shell in stock and Shell's company value is 300 billion US dollars, then 1% of shell's emissions are counted toward the investor's carbon footprint. We do this calculation for the other assets in the portfolio and sum the results up to arrive at the portfolio carbon footprint. Okay, fine, but here's where I need to get wonky. Now, what is a company's value that isn't a set thing in the financial market now, is it?

Carrie Wang ([08:32](#)):

So early in the days when carbon footprint methodologies were focused on pure and equity portfolios, market capitalization was often used. But because more and more portfolios tend to be multi-asset nowadays the use of enterprise value, including cash, we call it eic, EIC has become more widespread. So EIC takes into account not only equity financing but also debt financing and cash balance sheet. So it's more like a whole picture of the total financing to the company

Mike Disabato ([09:15](#)):

Evic. It tells you the company's value and how much it would cost to buy the company. It is a number that shows a company's worth in essence. So you could just take the investor's position, as I said in the company and divide it by eVic and multiply it by the company's total greenhouse gas emissions. And there you go. You've got a portfolio carbon emissions number for that company that you've invested in. And there are other ways to do that calculation, but let's just keep it at that for the sake of the conversation because it can get complicated with timing issues of when eVic is reported versus the emissions. There's some details there that I'm going to just gloss over. Where this actually gets complicated and this is important is trying to understand the value of that portfolio carbon footprint number over time. That is the use of a carbon target to see how things move from one quarter to the next.

([10:06](#)):

And there was a time a couple years ago where some investors were reporting their portfolio carbon footprint of huge swaths of the market and showing that it went down, but the overall absolute emissions of our society hadn't changed. In fact, they've been increasing. And what people realized was the only thing that was changing in these investors' calculations was the company value number, not the emissions number. Let me give you an example to make all that a bit more concrete. Let's say you have a portfolio that is heavily invested in nvidia, the tech company. The enterprise value of NVIDIA increased threefold in the past year. Even if NVIDIA's emissions didn't change or even increase 50%, the financed emissions intensity of your portfolio could appear to have decreased substantially because your denominator, which is the enterprise value of the company, increased by threefold while your numerator, the emissions did not change. This is a difference between what's called paper emissions and absolute emissions. If you have paper emissions, you have a company that just maybe increased in value and kept their emissions stable or just increased their emissions by a little bit. With absolute emissions reductions, you would actually see a lower absolute carbon emissions number regardless of the worth of the company. Now, regulators have gotten savvy to this problem of paper

emissions versus absolute emissions and have added requirements to remove the noise from the disclosed portfolio emissions that are reported out to the market.

Carrie Wang ([11:37](#)):

Some initiatives such as P cap, they also ask companies to report both the adjusted and unadjusted numbers to make sure the numbers are comparable as well. So as an investor, you do want to know what are so-called the real world emissions change of your portfolios companies, are they actually taking actions to improve their carbon profile, reducing their carbon footprint or their finance emissions intensity tends to decrease just because they have a better valuation where their stock price just increased so much. It's not like something the portfolios companies did to make the world cleaner.

Mike Disabato ([12:31](#)):

Understanding whether a bank, for example, helped lower the collective emissions of our society. It's an important metric for a more impact oriented investor that is all about trying to ensure their portfolio has the lowest absolute emissions possible. Now, an equally important complication that could arise without a proper counting of how the finance carbon footprint was lowered for a bank or for an asset manager would be for an investor that is trying to ensure it isn't exposed to companies that may run a file of regulations meant to increase the cost of carbon emissions, or an investor that wants to take advantage of portfolios that are pursuing low carbon tech, something that would be seen in its finance, carbon emissions numbers being lower. You have those two different types of investors that can be satisfied by this one disclosed portfolio carbon emissions number. What Carrie is hoping is with this report, investors will have a better toolkit for which to disclose their finance emissions and a better way to understand how different portfolio carbon footprints have been calculated that are starting to trickle out into the market. So in that regard, I asked her what she thinks all this will mean for the future of investing.

Carrie Wang ([13:46](#)):

So now we have the carbon footprint numbers and what this number will bring is transparency. Transparency for investors wanting to reduce exposures to companies that are at potential risk of credit or operational problems due to climate change or they increase their exposure and invest in companies that are likely to benefit in the transition to a low carbon economy. And where this number can go wrong is if investors just stop there and put the numbers out to show they're managing the risk of climate change, but they actually are not. It'll require a detailed portfolio attribution, as we mentioned, to provide further transparency and breakdown, and also shows how they're taking actions to change the portfolio emissions over time.

Mike Disabato ([14:47](#)):

Understanding climate targets requires transparency and consistency. If that isn't done, we are not actually sure whether or not emissions have been lowered and increased and where the assets are located with regards to risk or opportunity due to climate change. What Carrie is hoping with this guide is that she can make a more transparent financial market that sees climate change as an already present systemic risk that we all need to figure out how to address in numerous ways. Thanks as always for joining us. Thanks to my guest, Carrie Wang for discussing the news with an ESG twist. And if you like what you heard, don't forget to rate and review us. It always helps and subscribe wherever you get your podcast. Thanks again and talk to you next week.

Speaker 3 ([15:50](#)):

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. The information contained in this recording is not for reproduction in whole or in part without prior written permission from M-S-C-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 permit 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.

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. 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 www.msci.com.

MSCI ESG Research LLC is a Registered Investment Adviser under the Investment Advisors Act of 1940 and a subsidiary of MSCI Inc. Except with respect to any applicable products or services from MSCI ESG Research, 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 intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. Issuers mentioned or included in any MSCI ESG Research materials may include MSCI Inc., clients of MSCI or suppliers to MSCI, and may also purchase research or other products or services from MSCI ESG Research. 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.

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 Standard & Poor's. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and Standard & Poor's.

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, reports and ratings based on published methodologies and available to clients on a subscription basis. We do not provide custom or one-off ratings or recommendations of securities or other financial instruments upon request.

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