



CleanLaw 62

Hana Vizcarra and Madison Condon Discuss how the Market Has Failed to Price Climate Risk – October 11, 2021

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Andy Dolph: Welcome to CleanLaw, from the environmental and energy law program at Harvard Law School. In this episode, our staff attorney Hana speaks with Madison, associate professor of law at Boston University, who studies how climate change relates to corporate governance, market risk, and regulation. They discuss her research on how the market has failed to properly price climate risk, and how the Securities and Exchange Commission might address that failure through new regulation. We hope you enjoy this podcast.

Hana Vizcarra: Welcome to CleanLaw. I'm Hana Vizcarra, and I'm here today with Professor Madison Condon from Boston University, who teaches environmental law, corporations, and a really interesting seminar on climate risk in financial institutions. You're also a Harvard Law graduate. Although I wasn't able to invite you onto campus to record today, it's really nice to be able to welcome you back in a sense. At least we're both back in the same city now that HLS is on campus again this fall.

Madison Condon: That's right. Thank you so much for having me, and thank you for joining said climate risk and financial institutions class.

Hana: It was a lot of fun. We are going to talk a little bit about climate-related disclosures, and climate and financial risk in the US financial system. Investors and advocates have been pushing to improve the consideration of climate-related risks in our financial markets for years. And in the last five or so, their efforts have moved into the mainstream with major asset managers, banks, and other market players recognizing the need for better disclosure from public companies and about the risks that they face from a transition to a lower carbon economy, and the physical impacts of our changing climate. There's increasing demand on all market players, including investors and banks to assess the climate-related risk for their portfolios. There's been some progress and it's mostly in the voluntary space, efforts to develop frameworks for climate-related disclosures and industry-specific guidance on how to apply it at the corporate level.

Hana: We have the task force on climate-related financial disclosure, or TCFD, that served as an international table setter on the topic, issuing recommendations in 2017 and fostering a more expansive disclosure. And groups like SASB that have worked to translate those efforts into actionable advice at the industry level for companies operating in the US legal environment. And right now, I feel



like we're seeing everyone from law firms to consultants, to investment advisors, data and accounting firms, rushing to advise companies and the financial industry on ESG or environmental, social, and governance issues, of which climate change is probably the hottest topic at the moment. Internationally, we've got financial regulators who are starting to impose new rules, new disclosure requirements, incorporating climate risk into their stress testing and other climate focused oversight of their financial systems risks.

Hana: In the US, we really have had... previously, our regulators have been pretty hesitant, but right now, they're more active and we're expecting to see a proposed rule on climate-related disclosures from the SEC this fall. Now, you have been studying and writing on climate change and how it impacts the financial markets. You recently published an article explaining what you termed was the market's myopia when it comes to climate change, that looked at why and how the market is mispricing foreseeable climate risk. Can you give us a brief overview of the article and what it is that you found in that investigation?

Madison: Sure, yeah. Thanks so much for asking. The motivation for this article was to try to think about what the Securities and Exchange Commission would have to put in the preamble to its proposed disclosure rule, as it's set about justifying its regulation in this space. One of the ways you can justify the need for regulation, is pointing to an existing market failure. I was really thinking about the courts a little bit as I wrote this, and thinking about what the court would need as evidence for why the SEC needed to step in and regulate in this space. As a first step, I looked at the enormous demand from the private sector for this regulation. Different pieces of the private sector respond differently. There's certain industries, some certain corporate industries, that don't want this type of disclosure and don't want to have to produce this type of disclosure.

Madison: But for the most part, as you said, a lot of the asset managers and pension funds and accounting agencies, and some of the larger companies that are in the tech space and less fossil focused, have been very, very supportive of the need for climate disclosures. And there's also been a lot of voices in the private sector space and also in the public finance space, including Christine Lagarde of the European Central Bank, that have said that we should really be skeptical that the market is doing its job about pricing, when it comes to pricing climate risks. That the mechanisms of the market might be failing to assess and price climate change risks, the way we expect the market to function with other risks. That was the mission of the article. And I broke down what I saw as the mechanisms of market inefficiency into a few categories.

Madison: I would say the number one first issue to point out, is that in the financial sector, a lot of pricing decisions and asset allocation decisions are based on backward looking data that is collected and then projected forward into the future and rest on assumptions of things roughly continuing as they had, in the future. And of course, you can adjust that if you have information about how



you expect certain cash flows to change or certain corporations prospects to change, but climate change really changes everything and changes everything very dramatically. When you change the temperature, lots of stuff changes in the economy. Financial models themselves might be breaking down, might not be fully assessing the potential future of volatility of the stock.

Madison: The future is going to look very different from the past, but much of the infrastructure that corporate America relies upon was built using engineering specifications that were designed for certain extremes, certain temperature and weather extremes that now may be regularly exceeded in a much hotter world, in a world with more intense rainstorms and increased frequency in floods and increased likelihood of landfall of hurricanes. All of these infrastructures that corporate America rest on, both its own infrastructure, its own factory floors, but also the infrastructure that it rests upon for the delivery of its supply chain are very threatened.

Madison: And in order to assess, given these latent risks that corporate America is exposed to, it's not totally clear what actors in the market are responsible for unearthing and uncovering these latent risks. Who's asking, "Is your factory in a flood plane? Is it resilient to the increased threat of a flood?" And you can do... There's an enormous, I'm sure we'll talk more about this in detail, but there's been this enormous demand for climate-related data from the private sector. Everyone is trying to figure out better ways of assessing and pricing information about climate risk, about climate exposures at a very granular level down to the zip code or smaller than the zip code down to the building level.

Madison: And these data sets are helpful, but while you might be able to figure out on a map, here's a location of a certain asset of a corporation, a certain facility, let me measure its risk exposures. You can't really know without inside information from the company, just how resilient that asset is. You don't know if they've gone in and actually done... had invested in adaptation changes to the company. You don't know exactly what the engineering specifications of that factory is. That's information that's not typically disclosed in corporate disclosures. It's information like that about what have you and your company done to assess your exposure and then respond to that assessment, is part of what is missing from the puzzle at the moment.

Hana: And you talked about data quality and well, there's two things that you talk about that I want to pull out a little bit. One was the forward-looking versus backward-looking information. Rely on this historical data that doesn't necessarily represent the future risk. And that's something we're seeing that's becoming an issue in almost anything that could potentially touch climate, that is affected by climate. Not just when and how companies and markets are considering things, but how is the government considering things? How are our flood maps? What data are they based on? Are they look backwards or forward? This is one of the challenges of climate change and how we think about risk in almost any place that we're assessing risk. But what I think is



interesting is, you're really diving into how all of these things stack up and then combine to make this heightened problem within the financial sector and particularly in how markets view the world and how markets respond to this risk.

Hana: And then, the data quality piece of it. I would love to talk a little bit more about that because this is a layering problem, where you have all these actors that are trying to assess their risk and focus on climate in a way they haven't in the past, perhaps, but it relies on layers and layers of different data from different entities that are all behind the mark in that from the beginning. Have you looked into that a little bit more? And can you tell us a little bit more about how that compounds the problem?

Madison: Yeah, I think that's a really good point, Hana, and I think that the problem that you bring up is really illustrated, I think, in some of the ways we're seeing the approach to ESG disclosures diverge between the European Union and the US approach. In that the European Union started, I mean, first of all, started earlier and before the US to take this issue seriously and to make progress on that issue, but is very much interested in regulating climate-related issues at the financial level, as well as the issuer level. They are both, yes, they're asking for more information from corporations, but they're asking for a lot of information from financial entities, from asset managers with index funds. If you label your index fund as climate friendly, do you have the data to back that up?

Madison: And it's a really hard problem and it's really hard problem to design rules around and to enforce, if you don't start out with really robust data at the issuer level, at the corporate level. How are ESG funds supposed to answer this question about emissions footprints or emissions profiles of their portfolio, of all the different companies within their portfolio, if they don't feel like they have accurate information about the carbon footprints of the individual companies themselves?

Hana: One of the things that we're seeing the SEC start to grapple with a bit, because they're talking about both of those things now, but we don't know what they're going to do with them. At least not yet, but there's been some talk about funds and how they're representing themselves and the rest.

Madison: Yes, so they've flagged that they are considering doing some sort of greenwashing regulation at the fund level, at the financial level. Although I think that there has been an acknowledgement that one necessarily should come before the other, in terms of urgency and speed, that getting issuer disclosure correct first will greatly facilitate holding disclosures to account at the financial fund level. It's been interesting to watch.

Hana: Going back some of the things that you were identifying as why the market's failing here. We talked about the outdated methods of risk assessments and the data quality, but you also talked about incentive to disclose.



Madison: There's a lot of different things going on. The way the securities regulation, the way the disclosure rules right now, they leave a lot of discretion up to management to decide what is, or is not material, AKA relevant, to interested investors. And it leads a lot of discretion to the managers of the company, also, to what they deem as risks, what they decide to assess as a risk, what they decide to call a risk and what they decide to disclose as a risk. Managers have a lot of discretion in making those decisions. Part of the process is to force them to do this. And so, when they have a lot of discretion, there's certain managers in certain industries and certain companies in particular, that are very opposed to making disclosures. They don't want to reveal to the market this information. They've been fighting it for a long time.

Madison: And some of them might be motivated by a fear that this increased access to information will, in fact, perhaps reveal that their company's unprepared for climate change. And even, perhaps, that their stock is overvalued, relative to companies that are more prepared for climate change. And that could come in both forms. There's different types of climate risk. There's transition risk, meaning are you prepared for the transition to the green economy? Or instead will you have a bunch of stranded assets that you claim now will be profitable, but actually you won't be able to sell in a climate-regulated world? Or are you just, all of your assets, all of your land assets or your mines or whatever type of company you are, are they located in particularly drought prone areas? Will it be very expensive for your mines, relative to your competitor's mines, to continue the very water intensive mining process, just because of where you happen to be located?

Madison: It's not clear that it's always in CEO's best short term interests, even if it's in the long term interest of the company, to assess these risks. When CEOs in particular are paid with stock and stock options and have the ability to sell their stock after they exit the company after their tenure of CEO has ended, it might be in the best interest of the CEO to neglect to even think about the much longer term risks, because they might require lots of upfront capital costs. You might have to explain to your shareholders, "We have to make this really big expense this year. We have to build some flood walls. We have to install pumps in all our facilities. We have to dig up a bunch of wire and move it for longer term resilience. But because of all these capital expenditure, we can't pay a dividend today." So, maybe the stock would go down.

Madison: And so, even that's in the longer term best interest of the company, a CEO who plans to retire in the next couple years might just kick the can down the road and hope the stock market doesn't notice in the meantime. That's another one of the reasons why the market at the moment doesn't have all the information it needs.

Hana: And you also talked a bit about time horizons. I think you alluded that with the what's in the interest of the short term versus long term of the company. And this has been a challenge for how we regulate how the insurance market work,



how companies interact with their investors, because there's arguments that investors really only want to see the next... they're really worried about these next couple of years because that's where they're going to make gains. Well, obviously we've heard from an increasing group of shareholders in the market that they actually do want to see longer term horizons and you have pension funds and more institutional investors who hold their positions much longer, who are more concerned about this. So, you were, I think, took a look at this and said that this is also one of the challenges here. And one of the incentives that shows why the market doesn't really piece together the pricing in the way it should.

Madison: Yeah. I mean, our securities laws were designed around a conception of an investor or an investor regime or a market structure that has changed a lot since our original conceptions of, say, materiality or certain disclosure rules were made. Some of the largest shareholders in the climate-riskiest companies, some of the largest shareholders of Exxon, for example, are these very large asset funds, which are so big mainly because of their number one product, passive index funds. And these passive funds, because they're what passive means that they... If it's an S&P 500 index fund, you own a little bit of each of the companies in the S&P 500. And the person who manages the fund for you, doesn't pick and choose stocks to include in the fund. You tell them to buy the S&P 500, they buy the S&P 500.

Madison: And because of that, they're not doing risk analysis on the companies. They're not trying to think what would be a good deal for you, which stocks will go up and which stocks will go down. So, they rely on the other actors in the market to price the market correctly. All these enormous passive funds, which is a very big chunk of the market these days, I think 50%, are relying on the active traders in the market to be the marginal trades that will set the correct stock price for each company.

Madison: There's still a lot of scholarly debate about whether this large passivity of the market contributes to price inefficiencies, whether the fact that most of the money is very blindly following, the biggest company will be the biggest company. The verdict's out about whether this passivity encourages market inefficiencies in many spaces, including the climate risk space. But for sure, from their own behavior, these large asset managers themselves are really worried about a climate-related bubble. And the way that they exercise this worry because they can't sell stock, it's their client stock that they're managing it. The only powers they have left remaining to them are what corporate law scholars would call their shareholder voice. Usually, shareholders are conceived to have two different options. They can either exit or they can use their voice. So they can sell their stock, or they can agitate the company to change it.

Madison: And these large asset managers have been very aggressively using their power. Usually they don't do anything, they just agree with management at all these



shareholder meetings. They've initially begun to really push for increased climate risk disclosure at shareholder meetings, which has been an initial first step, although definitely not sufficient. We definitely need regulation from the SEC, but even to actually change some of the ways companies are responding to business climate risks directly. I'm sure you're aware, there's this big showdown at the Exxon annual meeting, where a hedge fund climate dissident changed some of the leadership of Exxon. And this, I think, was in part because if you can't sell the stock, you have to do something else. And I think a little bit what's going on is that the price doesn't fully reflect all the risk, and these large asset managers are constrained in one way and trying to figure out how to address risk in a different way through their shareholder power.

Hana: I've been following this for the last few years and watching as they've slowly ramped up with the use of their shareholder voice. You see the big players making statements in 2015, and then over the course of the year, starting to actually take more action and integrate different kinds of data and information into their regular course of business, but also voting against management. And as we saw with the Exxon showdown, being willing to actually replace board members and that was a big deal. And it was a big deal, not just because they tried to do it, because we've had shareholder actions before, but that they were able to get a wider range of other shareholders on board. And I think that shows this change. We've seen this shift and I like how you talk about it. This is the voice they have and this is what they can do. And so, it shows it's increasing agitation and concern about the pricing as it's reflected now in the market.

Hana: Let's talk about that a little bit, about how that affects what you might see out of the regulators. We have the SEC, who said that they're going to have some sort of climate risk disclosure rule proposal coming out this fall. They've already, as soon as the commission changed hands, there's a lot of activity has been going on this year internally at the SEC. They've made climate change a focus of their examinations, their enforcement efforts. They were encouraging all the different divisions of staff within the commission to really dig into what's happening with climate-related issues in disclosures and everywhere else that they manage, that they have oversight and authority of.

Hana: We don't really know what that means for how they're seeing the problem yet. They've put out a request for public comments in March with some big, broad questions to ask and to gather information, but we don't really know where they're leaning as far as what any kind of proposal will look like, except that we know that they've instructed staff that they're going to think about updating the 2010 climate-related guidance was pretty ineffective from... But it was at least, it was a marker.

Hana: But then besides them, we have the CFTC, who's also been focused on climate, and fed and treasury are taking a look at climate. We're seeing all these different players in the financial system. I think, as you've explained, it sounds



like the way our structure's set up, at least in our regulators, we need the SEC to move first. We need those disclosures to be useful enough to build on for all the other pieces of the players. What are some of the things that you're thinking about when you're thinking about what you'd want to see from the SEC, from the failures you've identified and you're of the market to price climate correctly? What are you looking out for?

Madison: That's a good question. I think there's a few key questions and then there's some things that I really hope the SEC does. I think the questions are, how much does the Securities and Exchange Commission borrow from preexisting voluntary frameworks? As you mentioned before, there's SASB, which is US based, which is industry-specific line item disclosures, like, "How many gallons of water do you use at this specific facility?" Can get as granular as that. And then there's the TCFD, which I think of as more robust, when it comes to transition risk, and requires the use of stress test to forecast different future climate scenarios. One question is, how much does the SEC balance between different qualitative assessments of risks?

Madison: The TCFD, in addition to requiring these stress tests, also does things like, "Is there a person on your board that is assigned to climate risk? Is there a person on your board that has climate expertise?" It's not quantitative information that is like, "Tell us the number of your risk exposure." It's more like, "Do you have the governance compliance systems in place to limit your risk?" One question is, will they have disclosures of that form? And then how detailed will they go?

Madison: Gensler, Gary Gensler, the, the chair of the commission, has hinted a little bit of what they're going to do. It seems pretty clear that they will require disclosure of Scope 1 and Scope 2 emissions. It's not clear whether, and to what extent, they'll require Scope 3 emissions. Scope 3 emissions is all the emissions in your supply chain. So, oil sells unrefined oil, the emissions that come from the refinery and the emissions that eventually come from the car when I put gasoline in it, those are all attributed to the person who sold the original barrel of oil in their Scope 3 emissions. Scope 3 emissions has a ton of accounting challenges, and I think might result in a phased rollout.

Madison: There's different subcategories of Scope 3. There's different supply chain emissions that are easier to quantify than others, so they might require some subsets of Scope 3 disclosure emissions. That's an interesting question. What line item disclosures will they require right off the bat? And then there's things that I really hope that they focus on or things where I think there are some red flags that could really help the market along in terms of facing these risks. And one is this, there's been this huge phenomenon the past year, and maybe two years, of large corporations making commitment to reach net-zero emissions at certain dates in the future.

Madison: Many, many companies have net-zero plans, even aviation companies, even airlines have net-zero pledges and oil and gas companies have net-zero



pledges. And the devil is really in the details. And a lot of these net-zero pledges are not backed up with concrete business plans of any form to show just exactly how they will meet these goals. I think one thing that the SEC should really focus on is if you have these net-zero goals, there should be some changes that are reflected in your financial statement. You should have had to make some sort of reallocation of assets to steer your business in this new future direction. And right now, that's not happening. And so, one way for shareholders that are interested in getting in on this game, which clearly have an interest in mitigating climate risk, one of the things is to maybe start thinking about the way your CEO is paid. Actually link CEO compensation metrics directly to achievement of certain intermediate net-zero goals, which is a trend we're just beginning to see happen.

Hana: I think that net-zero question is really interesting because everybody's jumping on these commitments. There's a lot of goals and they're not, as you said, how achievable they are, whether they actually have the plans to implement them. You want there to be goal setting. You want there to be something to get them to be ambitious, but you also need to see that there's action behind it and an effort to reach them. I think it'll be interesting to see, and this is one of the things I'm looking out for, is very much how they take a look behind disclosures, how they look at this from their examinations and enforcements divisions. Whatever they put out, whatever guidance they put out on these issues, this may not show up specifically in a rulemaking, new disclosure requirements, because these are arguably things that are already material at this point, or will be, if you're making these kinds of commitments, then it's incumbent on them to show that they actually mean that. And that they can enforce it in some way.

Hana: And so, I think that was one of the big failures we saw with the 2010 guidance, which essentially stated that these things could be material if it is to your company, you need to disclose it. But then they didn't go through the process of really understanding, of pushing companies to explain how they were making those evaluations. These new net-zero commitments, there's a lot of potential for misrepresentation or misleading your shareholders if you're making big pronouncements and continuing to rely on that, without really showing that there's action behind them.

Madison: Yeah, and I think that you realized this very early on, and I agree with you, that the auditing industry has an enormous role to play in this space. They're going to be the ones that are actually signing off on the statements of, "Does this net-zero plan align with the financial statement?" And they're beginning to move in that direction. I mean, it's been... I think the PWC has announced an enormous number of future hires, specifically in the climate risk space. They see the future and they're preparing for it, but there's still an industry. There's still a third-party regulator that is not a government entity and has its own reasons to not be as diligent as they possibly could. They really, I think they do need oversight from the Public Company Accounting Oversight Board, which is a



separate entity from the SEC, and it's yet to be seen whether and when the PCAOB will step up to the plate and really, I think, meet this very large need for updated climate risk guidance for the auditing industry. I think that's another room for improvement in the Biden administration.

Hana: Definitely. That will become only more important as we start seeing more disclosures and more quantitative disclosures and finding real information, getting into financial statements about climate, not just the qualitative discussion of the issue. Well, Madison, is there anything else you think we should chat about before we wrap up? There's so much more we could talk about, and we didn't even get through everything that you got through in your market myopia paper, let alone some of the other work you've done. It's been great talking to you, but I do want to give you a chance if there's something else that I haven't touched on that you think we should chat about, let's do it.

Madison: I don't think so. I think we covered a lot of bases. We got the financial greenwashing in, we got the auditors. Yeah, it's just the news is just a rush at this point in the ESG space. It's hard to keep up.

Hana: Definitely. And that's a good reminder that anybody who is interested in this and does want to learn more and is listening to this, should be on the lookout for what's coming in this fall, because we should hear more from regulators. As you mentioned, Gary Gensler has been out there talking about this. We've seen some indications of where they might want to go, but we're expecting to actually see some real proposals starting to come out of the agencies, the regulating entities this fall. So, there's more to talk about, more to evaluate, and this is still the beginning of the process.

Madison: Yeah, there's more to come for sure. It's been a real pleasure talking to you. Thank you for having me.

Hana: Well, thanks for joining us. Bye Madison.

Madison: Bye bye.

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