

Leeds University Business School – Research and Innovation Podcast

Episode title: “Climate change as a financial risk: what new firms and investors need to know”

Speakers: Addi Manolopoulou, Professor Shima Amini and Professor Abdul Mohamed

[00:00:05] **Addi:** Hello and welcome to the Research and Innovation Podcast. My name is Addi Manolopoulou, and I am the Accounting and Finance department manager here at Leeds University Business School. Today I am delighted to be joined by Professor Shima Amini and Professor Abdul Mohamed. I am particularly excited to speak with them because they've recently published a fascinating new paper.

Welcome, Shima and Abdul. Would you both like to tell us a little more about it?

[00:00:38] **Shima:** Hi Addi. Thank you very much. So I'm Professor Shima Amini. I'm Chair in Entrepreneur Finance at the Accounting and Finance Department. Our recent paper is published in “Small Business Economics” Journal, and it is titled “Climate Change Risk, Investor Sentiment, and the Performance of New Entrant Firms.

[00:01:03] **Abdul:** My name is Abdul Mohamed. I'm also a Professor of Accounting and Finance in the Accounting and Finance department. This is our joint work where we look at the climate risk and how that affects companies that are recently listed on the stock markets. Our focus is on the US market.

[00:01:23] **Addi:** Wonderful. Thank you both. Before we get into your findings, can you explain what we mean by climate risk in this context, and how might climate change pose a financial risk to firms, especially new ones entering the market?

[00:01:39] **Shima:** So, in terms of climate risk, when we talk about climate risk in business and finance, we are referring to the real and measurable threats of climate change to companies. So, in general, we know that climate change carries substantial economy costs, and the existing literature shows that a rising global temperature and extreme weather can damage agriculture, infrastructure and productivity.

For example, in 2018, Europe experienced a heat wave that caused severe droughts and huge agricultural losses. These kind of events make climate risk visible, not just to governments and scientists, but to investors and market participants, including those which are participating to invest in the IPO – which are initial public offerings - sector.

So, this study, we are looking at climate risk, is basically focusing on measures that are market relevant, the ones that investors pay attention to when they decide whether to back a new company or not. So one key tool we use is the Palmer Drought Severity Index. It's a widely recognized metric that tracks drought intensity over time.

So droughts in general are among the most disruptive events for economic activity, and they hit sectors like agriculture, energy, and manufacturing the hardest. So that's why we looked at climate risk in our paper.

[00:03:26] **Abdul:** As my colleague already mentioned about the different measures of this, climate risk. In fact, there are quite few things that climate risk changes impact company that planning to list on the stock market.

Some of the things that are currently happening in US is about mandatory disclosure, where the company, they really need to say how this climate change risk affect their performance. And this is very important, especially for companies trying to list in the stock market for the first time. Because normally these companies are very new, are not known to the investor.

And what happens is that the investor, they read through this company to understand "if I have to invest in this company over time, is there any risk that I need to anticipate that potentially could affect the performance?" However, when you are looking from that point of view, very often the company or even investor, they focus more on operational side to see whether the company doing well in the market, how they're competing in the market, among other things.

But now the fact that the company, they have to disclose this information, this potentially it could affect the company planning least on the stock market for many reasons. Because if the company is subjected to higher climate change risk, then potentially they may not necessarily be able to raise the capital.

For them, raising capital is very important because if they fail to raise the capital, very often they're not allowed to list on the stock market. And this was the key motivation on understanding why this climate change risk is very important for a new company. So if the company is coming from the sectors that are highly affected, then most likely they may have a problem even listing on the stock market.

So among the industry, that effectively include utility, energy, industrial material among others, so therefore, it is important for a new entrant to understand that part of the risk element that potentially will be assessed by the investor is the climate change risk and how that affect the future performance.

And that was the main point of our research.

[00:05:27] **Addi:** Okay. What made your team want to study this?

[00:05:30] **Shima:** So, we were really interested in this growing link between climate change and financial markets. People might think that climate change is an environmental or social issue only, but we wanted to see whether it actually influences investment decisions, especially when companies are just starting out so they are new firms coming to the market.

So IPOs, which are the firms that enter the stock exchange for the first time, are a great place to look because they are high risk firms and investors have limited information about these firms. So it is a perfect setting to see if climate risk matters for these firms.

[00:06:14] **Addi:** Hmm. What data sources did you and your team use in this study?

[00:06:20] **Abdul:** We have focused on the US market for many reasons, because one of the reasons is that the US market is one of the biggest or largest market in the world, and also in terms of accessing data, especially related to climate risk, it's far more easier in US than anywhere else.

What we are using, really, we're using most of the data that we use, especially to measure this climate risk and drought. They're publicly available and in our paper we do highlight exactly the source of that data. The other type of data that we used is the list of the company listing on the stock market in the US. Again, this data is available from different sources. One of the main sources that we have used is SDC Platinum. And normally this is the type of database that you have to subscribe. In Leeds, we have subscription, and also there is other data source that you can still access. One of the common one is J Ritter. So J Ritter Library, they do have access to all these company listings on the US market. So we try to get all this data and then after that we have tried to combine all this data.

For us to address the question on whether this climate risk has any impact on companies seeking listing for the first time on the stock market. And, again, for most markets, the IPO data is available, but the only issue is that the climate risk data is limited and this is one of the reasons that we focus on the US market.

[00:07:58] **Addi:** Mm-hmm. What were your main findings during this paper?

[00:08:04] **Shima:** What we find is that climate change risk has a real impact on IPO firms.

And what we find is that IPO companies, which are located in high-risk areas, tend to raise less money initially, which means that they are less underpriced and perform worse in the long term. So, this effect also is interesting to know that this effect is even stronger when the overall investor mood is negative. Which means that when people are nervous about the market, they become even more cautious about companies exposed to climate risks.

[00:08:44] **Addi:** Thank you very much. This is fascinating. Why do you think new companies are especially vulnerable to climate risk?

[00:08:52] **Abdul:** Because normally this climate risk is costly and sometime it can bring so many disruption to the business. And big companies perhaps they have enough resources to be able to deal with this distraction and also disruption to their businesses.

But if we are looking at the company planning to list on the stock market for the last time, this type of company, they're more likely to be vulnerable to a climate risk because it is

costly and these other type of company are growing and their growth could be potentially affected by this drought and also this extreme climate risk.

So looking how it affected this company is far more important to them looking at the company that are already well established in the market. Because if you look at the companies that are already established in the market, it's very, very difficult to identify how this climate risk could potentially affect them because they tended to have so much operation and potentially some of the disruption could be related to operation rather than specifically related to this climate risk.

But for smaller company, which are seeking listing in the stock market for the first time, it gives us a clean setting to understand how this climate risk could potentially affect these type of companies.

[00:10:07] **Addi:** Thank you. You also looked at investor mood. Can you tell us how that plays a role?

[00:10:14] **Shima:** Yes, of course. We found that investor mood really matters, and when people are feeling confident, they might be willing to overlook certain risks, but when sentiment is low, for example, after a big market drop or bad news in the market, investors pay much more attention to climate risks. So the negative impact of climate exposure become much stronger when the overall mood is not great and is negative.

[00:10:42] **Addi:** What would you say is the big takeaway from your research?

[00:10:47] **Abdul:** The big takeaway from our research and also from the finding is that the climate risk, it does have an impact, not just for smaller company. And it's not something that company would say perhaps "we don't need to worry much, and this is something probably is more related to the future". It seems that will have an impact now on affecting company that are seeking listing. They are affecting investment decision. They are affecting how much money they can raise. So it seems that it is an issue of concern and in fact, this is an issue that has to be also included as part of the pricing of the company.

So companies cannot stay back and to say that "the climate risk does not necessarily affect me and I don't need to worry". It seems, based on our result, that the impact is almost across all sectors. Although some sectors you may say perhaps, that they are not so much influenced by the climate risk, but our result is showing that this has a huge impact anyway.

And therefore it is an issue of concern for smaller companies and equally for a big company. And they have to take this into consideration, especially when it comes to the performance and also when they're thinking about element related to the risk.

[00:11:58] **Addi:** It sounds to me from everything I'm hearing you both say, that climate change is a financial issue, not just environmental.

Who do you think should pay attention to these results?

[00:12:10] **Shima:** So we think that these results are important to a group of stakeholders. For example, investors, company leaders, policy makers, and people who are interested in sustainable finance. If we think about the investors, we know that the investors are taking climate risk seriously, and they are making decision based on exposure, climate risk exposure of the companies.

Policy makers should take these results - it highlights the importance of creating clear rules for climate risk reporting, for example. And as a result of that, everyone can be better involved in making decisions.

[00:12:55] **Addi:** Thank you. So useful insight for investors, leaders, and policy makers alike. What advice would you give to companies planning to go public?

[00:13:05] **Abdul:** So our advice to company seeking listing To the market is that they have to be transparent in terms of disclosing exactly how the climate risk could affect them, and most importantly, if there is any provision that they have in place to manage this risk. Because investors now – it's not the same investors a decade ago, now they understand really that this climate risk potentially could affect the company.

So any company listing in the stock market, they really need to disclose how this climate risk potentially could affect their businesses and also what strategy they have in place to mitigate this risk.

Whether you are a big company or whether you're a medium sized company listing, or even when you are listed, it seems that to disclose more about the climate risk, it is very important, especially if you have to attract to this potential investor and getting investor involved and investing in your company.

[00:14:01] **Addi:** And how should policy makers react to your research?

[00:14:06] **Shima:** Policy makers can help by making climate risk disclosures as standard parts of financial reporting. we know that it's becoming increasingly important that investors have this clear, reliable information about climate exposure. So better reporting would help financial markets deal with climate risk in a more informed way.

[00:14:28] **Addi:** That all sounds really, really interesting and very useful real impact. my final question is, what's next for you and your team?

[00:14:39] **Abdul:** We are really thinking more about how company could protect themselves against this climate risk. One way that we have in mind really is about investing in green technology, sustainable practices, that potentially could mitigate the issue of the climate risk.

And also we need to do more research in terms of understanding whether the other market equally or other company in a different market, they equally have the same problem because we looked at the US for many reason, as we mentioned but still it is not really very clear whether this impact of climate risk only affects companies in a developed economy, for example, like US.

And we don't know really much about the UK. We don't know very much how this will apply in Europe and also other parts of the world. So our research, we try really to expand internationally to have more understanding, although there are some studies that look at the international climate risk, but with our measure that we use for our paper, there are not yet widely used at international level.

And that is what we have in mind to take this research forward.

[00:15:46] **Addi:** Thank you both. We wish you all the very best with your research and exploring practical solutions and global trends.

[00:15:53] **Abdul:** Thank you very much Addi for all your time.

[00:15:55] **Shima:** Thank you, Addi.

[00:15:56] **Addi:** It's been a pleasure.

Ends.