MSCI

TRANSCRIPT

When a Scientist and Investment Professional Talk Climate Change

Featuring: ***Oliver Marchand****, Executive Director & Head of Climate Risk Research.* ***Will Robson****, Executive Director & Head of Real Estate Solutions Research*

Adam Bass (00:03):

This is MSEI Perspectives, your source for weekly research insights as investors respond to the COVID-19 pandemic. I'm your host Adam Bass and today is September 24, 2020.

Adam Bass (00:17):

This week, it's Climate Week here in New York City, one of two major annual gatherings of what you might call the climate community. In the midst of the pandemic, it can be all too easy to push aside concerns about climate change, but unfortunately the reminders are all too real. Fires raging on the west coast of the U.S., stronger, more frequent storms around the globe, and let's not forget the fires in Australia earlier this year. Just a few examples of the various serious implications.

Adam Bass (00:51):

On this special, somewhat longer episode of Perspectives, we'll explore where the world stands in terms of our efforts to address climate change and of course, the effect on investors of every strive as they look to measure the risks and the opportunities, evaluate, and maybe reevaluate specific investments, and make difficult decisions as they manage portfolios. Before we get there, let's take a step back and get a broader view.

Oliver Marchand (01:21):

It started around 200 years ago when famous scientists like [Hayhoe 00:01:27], Tyndall, and Arrhenius basically found the greenhouse gas effect.

Adam Bass (01:33):

Okay, maybe not that far back, that was the voice of Oliver Marchand and he is?

Oliver Marchand (01:38):

I am global head of ESG Research and Development at MSEI. I'm a computer scientist and meteorologist by training and I develop financial models related to ESG at MSEI.

Adam Bass (01:50):

We asked Oliver to help us establish a baseline. Where are we in 2020?

Oliver Marchand (01:56):

Let me answer that question on multiple fronts. Where are we on the science of climate change? I think on the science, the best thing that speaks for itself is the latest report. It's a special report by the IPCC-

Adam Bass (02:13):

That's the Intergovernmental Panel on Climate Change.

Oliver Marchand (02:15):

On the 1.5 degrees scenario, and the main result of that report is that this target of limiting warming to a maximum of 1.5 degrees is still possible, but it would require deep emission reductions and rapid, far reaching, and unprecedented changes in all aspects of society. It's a very challenging goal, but it's still possible.

Oliver Marchand (02:41):

In society, I think we've seen a huge shift specifically before COVID the Fridays for Future Movement really was on top of the news cycle almost every day. I think it's fair to say that the youth speaking for itself probably has more fundamental psychological effect than maybe some of the very important scientific findings. We see specifically now that Climate Week is going on, we also have a social movement-

Adam Bass (03:14):

All of this has had an effect on industry. There are oil companies phasing out their main business model and some major food and car companies making announcements that there'll be net zero carbon by the year 2050, which brings us back to investors.

Will Robson (03:29):

I think it was changed in recent history is the whole issue of climate change has kind of risen of the political agenda and that of society and it's really reaching the end investors at a multi-asset class portfolio level.

Adam Bass (03:43):

That's-

Will Robson (03:44):

Will Robson, I'm global head of Real Estate Solutions Researcher at MSEI. Although that's a bit of a mouthful, what it basically means is I write along with my team, a lot of applied research helping clients to kind of use our data, and our tools, and risk models to understand what's going on in real estate markets and to help them work out how best to analyze real estate in the context of their broader portfolios.

Will Robson (04:10):

It's kind of coming on down from on high that people want to understand their exposure to climate risk across the whole of their portfolios, and really integrate the assessment of that risk in everything that they do as the aggregation of that information. In a way that is really going to guide capital and direct it to areas that are more sustainable than less sustainable in a kind of systematic way.

Oliver Marchand (04:37):

I think it's all about how do we measure climate change risk and impact, and how is the relationship between these measurements and potential regulation? This kind of, let's say conversion to, I would call it mainstreaming, I think that's actually what's happening.

Oliver Marchand (05:00):

I'm sure it's the same with other industry standards. In the beginning, each mobile phone had a different plug and now things are slowly converging to USB-C and I think the same thing is happening in climate.

Oliver Marchand (05:16):

When we started Carbon Delta and talked about our main concepts, climate value at risk and warming potential, most didn't really know what to expect. Now these terms, and these concepts are almost mainstream. People know exactly what that is and that they needed as an investment tool.

Adam Bass (05:38):

This seems like a good spot. It's important to note here, a point that Oliver made several times. Basically that due to what was, and still is a necessary focus on COVID, the world has lost a year it really couldn't afford to lose on climate change. That however, not stopped investors from trying to understand the situation and take action.

Will Robson (06:02):

We're still having lots of conversation with clients and trying to help them understand climate risks because it's very much still at the top of their agenda. I have been really surprised at how much time and effort they're putting on this at the moment.

Oliver Marchand (06:17):

I would say that currently what we see is a strong pressure from our clients to make our analysis available for all asset classes. When I talk to people that are in contact with clients, product people, coverage people, it's a very similar demand from all of them. Let's cover all asset classes because major banks or major asset managers usually cover many, many different types of asset classes. I think that is the ultimate goal.

Will Robson (06:55):

Trying to understand these kind of complex climate risks and how they're going to impact real estate or any investments. Cash flows and values so that you can make a financial

assessment of the risk and incorporate it kind of seamlessly into the rest of your investment decision making.

Will Robson (07:15):

We try and look at all these different risks and we split them between those that are physical risks like hurricanes or tropical cyclones. When they come in [inaudible 00:07:27], they impact huge swaves of land, and they might affect hundreds or thousands of properties with damage, wind damage, for example.

Will Robson (07:36):

Whereas coastal flooding, which you often get when a hurricane makes landfall is over a smaller area than the entire hurricane. The properties that get hit, get hit really hard because flooding's very sort of costly damage, but the kind of local topography and where the land level lies means that even in quite smaller areas, there can be some buildings that are completely destroyed and others that have quite mild damage.

Oliver Marchand (08:08):

It's all about looking at the geospatial distribution of the business, of a company, and looking at the impact that the different hazards as we call them have on the business model. It's a very important element of climate change. We have just seen these examples with the wildfires on the west coast of the U.S. or the reoccurring hurricane season in the southeast of the United States each year.

Will Robson (08:38):

We look at those thing, we try to model over the coming years, how weather patterns are going to change. Whether those risks are going to become more frequent, or less frequent, and how intense they are.

Adam Bass (08:53):

To do so, one of the tools they use, which Oliver mentioned earlier is a model called Climate Value At Risk.

Will Robson (09:01):

We're trying to think about climate change and the risk around that, but apply it to financial modelings, hence the value at risk part of it. We estimate the financial costs associated with those events and then discount those costs back to today's value, and think about those costs, the present value of those costs, in relation to the value of the asset today.

Will Robson (09:25):

That means that you're taking the climate risk, putting a financial dollars and cents around those costs, and then thinking about those costs relative to the value of the asset. Some assets can absorb the same dollar costs much more easily because they're a much more valuable asset.

Will Robson (09:43):

If you think about an office tower in the middle of Manhattan, the value per square foot of that building is very high compared to an industrial unit in the Midwest, for example. They could be exposed to the same hurricane risk and the same damage function, same costs, but the impact on the office in Manhattan is much less material than it is for the industrial asset in the Midwest.

Adam Bass (10:08):

Another consideration when it comes to climate change is something called transition risk. It has to do with the fact that companies are going to have to adapt as we transitioned to a carbon free world. Risk however, doesn't always imply something negative. It also can create opportunity.

Oliver Marchand (10:27):

Asset managers are in a different position and I think they much more think about the opportunity side. Each crisis is an opportunity at the same time and I would argue the low carbon transition is the biggest business opportunity ever. I think they're much more interested in understanding this opportunity aspect of climate change.

Oliver Marchand (10:54):

At least half of the economy is effected by climate change and what I mean is that these parts of the economy need to either change the production of their products, or they need to change their products, or they need to change the supply for their product. The whole electricity grid needs to change. Products that are very carbon intensive, like aluminum, steel, glass, paper they all need to transition over to low carbon variations of that product. That transition needs investments in new markets and that's why I'm saying it's the biggest investment opportunity because there will be winners and losers along this transition. If as an investor, you're good at identifying the winners, it's massive opportunity.

Will Robson (11:50):

We're thinking about what needs to be done in terms of taking carbon emissions out of the system and then what the costs, what the carbon price around that effort is and then thinking about that in relation to the value of the asset.

Will Robson (12:04):

You may have some assets that are already very efficient and you don't need to take too much carbon out of those because they're already very low emissions buildings versus other assets that could be quite [dirty 00:12:18] buildings and not very efficient and setting in a country with high commitments to carbon emission reductions. Therefore the costs, the amount of carbon that you're going to need to take out the building and the cost associated with that is going to be quite high. I mean, it's about bringing all those different aspects together into one metric that is in dollars and cents and return space so they can think about it in an investment context.

Adam Bass (12:43):

While metrics like climate VaR are important across asset classes, they can be especially valuable for real estate investors who have to look building by building, particularly when evaluating transition risk. Seemingly small factors can have a very large impact.

Will Robson (13:00):

I was really driven by the carbon intensity of those buildings, the emissions intensity, that can be driven by the format, the type of building, but also the type of tenants that occupy them.

Will Robson (13:13):

Office buildings are occupied a lot of the day and they're generally air conditioned, lots of glass in them so that they can be quite energy intensive. You have big shopping centers that have huge areas to cool or heat, depending on where you are and large kind of common areas. The nature of the emissions data can vary quite kind of systematically across different [inaudible 00:13:41] types.

Will Robson (13:42):

In our modeling, we always try to get the emissions data of the specific building, the actual emissions data that reflects the actual building because some can be more efficient than others. In the absence of that data, we use proxy information and you can see the averages do vary by property type.

Adam Bass (14:01):

Will's point about data is an important one to know. Even as investors adoption of ESG has accelerated during the pandemic, that's a theme we've come back to time and again on the program. The availability of data and the consistency of how it's reported, and when that's still has a way to go. This scarcity of data has thrown up some major roadblocks when trying to account for an important piece of the puzzle known as scope three emissions, but to understand scope three emissions, we first need to talk about scope one and two.

Oliver Marchand (14:36):

Scope one and two emissions are very easy to explain. A scope one emission is an emission that really comes out of the exhaust pipe of the operations of a company. That would be a coal-fired power plant, or it would actually be a plane that an airline operates.

Oliver Marchand (14:55):

Scope two emissions are emissions, which are related to power that a company uses. Let's say on the aluminum factor uses an enormous amount of power, and that power is generated causing emissions. Then that adds to the scope two footprint.

Adam Bass (15:10):

Okay, following so far.

Oliver Marchand (15:12):

Anything else, really, for example, when a car company sells a car and then the consumer drives that car and it produces emissions, that's being considered the scope three footprint of a car company. It's not only the emissions from the products that a company sales, it's actually 15 different so-called categories, which also include things like the emissions related to the stuff that companies buy, or the travel of the employees, or the emissions caused by waste treatment, things like that.

Oliver Marchand (15:53):

They're very important scope three emissions because they can also have impact on obviously the sustainability of a company, but more importantly also it's part of the risk management that we need to look at because if car companies can't sell combustion engine cars anymore, or if potentially it's going to be very expensive for the user to buy biofuels or things like that, then that's going to have an effect on the bottom line of companies. That's why it's extremely important, especially for some sectors like the automobile sector to look at scope three emissions.

Adam Bass (16:37):

If unlike scope one and scope two emissions, scope three emissions are actually 15 different categories. That means it's almost like-

Oliver Marchand (16:47):

You have to build 15 models. That's definitely a complexity that is problematic. It's also problematic that the level of disclosure by companies is much lower for scope three data than it is for scope one and two data and that there are many ways of environmental accounting, which makes the data that we have very inhomogeneous. So that's why it took us such a long time to build a comprehensive scope three model that models 9,000 issuers. It's really for the first time, I think in the history of financial climate data, that we're able to look at data for such a large universe of companies.

Oliver Marchand (17:32):

That just opens up a lot of opportunities. It opens up opportunities to use that scope three data for value at risk models. It also for the first time I think enables investors to remove double counting that's ingrained in scope three accounting.

Adam Bass (17:51):

Sorry, double counting?

Oliver Marchand (17:54):

The best way to explain the double counting issue with scope three emissions is to look at an oil company and a car company. An oil company has scope three emissions through the oil that they sell, but those are exactly the same emissions of the scope three emissions of a car company that actually is used on the road and uses exactly that same oil.

Oliver Marchand (18:19):

If you add up all scope three emissions, you get something like four to five times the global emissions. Now, the big problem is if you don't remove that double counting, you can't do anything in terms of applying a carbon price or things like that, or looking at emission intensity compared to scope one emission intensity and that's just a statistical problem. Due to the fact that we were able to cover so many issuers, we can at least now do a first attempt at removing this double counting. It wasn't possible before because there just wasn't enough data.

Adam Bass (18:59):

Availability of data, incorporating new types of risks, and distractions by other global events such as COVID clearly there are obstacles to overcome in terms of the global fight against climate change, as well as the investment industry's ability to understand it and incorporate it fully into their process.

Adam Bass (19:19):

The good news is that pressure is building from many directions and the financial industry, as well as industry in general, appears to be actively working toward understanding the risks, as well as identifying the opportunities.

Will Robson (19:34):

It's encouraging to see so much interest in measuring the problem properly. We've had a lot of activity here and there, but I think we're at kind of the beginning of the wave of change, where it becomes much more sort of systematic and properly integrated into the investment process.

Oliver Marchand (19:51):

The industry is moving towards some very practical tools in the offerings and I think it is both necessary in terms of fiduciary duty to look at climate change risks, and it's a great business opportunity. I think at the same time, it's morally imperative to look at climate change risks and I think what is great is that these two things are now converging.

Adam Bass (20:22):

That's all for this week. Our thanks to Oliver and Will, and to all of you for joining us for this special episode of Perspectives.

Adam Bass (20:31):

Join us next week when we'll speak with ARK Invests Tasha Keeney about the growth of autonomous tech. Remember, it takes just a moment to subscribe to the podcast, leave a comment, or share with a friend. Until next week, I'm your host Adam Bass, and this is MSEI Perspectives. Stay safe, everyone.

MSCI

TRANSCRIPT

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**.
