McKinsey & Company

Insurance Practice

How insurance can help combat climate change

In the transition to a green economy, the insurance industry can play a critical role in helping stakeholders manage risk.

December 2020

In this episode of the *Reimagine Insurance* podcast, McKinsey senior partner Kurt Strovink leads a discussion with senior partners Kia Javanmardian and Dickon Pinner and partner Antonio Grimaldi about the impact of climate change on the insurance industry. An edited transcript of their conversation follows.

Kurt Strovink: Welcome, everybody, to *Reimagine Insurance*. This is a podcast that focuses on the trends, disruptions, and strategies that are reshaping the insurance industry today. Each of these episodes features different experts on leading topics that we think are important to the way we reimagine insurance.

I'm your host today, Kurt Strovink, and I'll be leading a conversation with a number of our colleagues to touch on climate change, which we think is an important area for the future of insurance and where insurance can play a leading role in shaping the future of this response for multiple industries.

I'm pleased to welcome three of McKinsey's experts to shed light on this topic as part of our conversation. Antonio Grimaldi is a partner out of our London office. Kia Javanmardian, a partner and leader of our North American P&C practice, is from the Chicago office. And Dickon Pinner is a senior partner and global leader of McKinsey's Sustainability practice.

I propose we have this conversation, if we could, in two broad parts. The first would be around the nature of the risks that we're seeing in the climate space. The second part would be to really talk about what the insurance industry can, as a category, do.

Maybe we can begin with you, Dickon. You talk to senior executives around the world frequently across different industries. I wonder if you could just give us a sense of the systemic risks overall that you see climate change posing at this point in the business, more generally.

Dickon Pinner: We've spent a lot of time now looking at both the physical risk and transition risk posed by climate change. The physical one in particular is, I think, underappreciated in how near term it is, how nonlinear some of the impacts are. Also, as we know, the impacts will be systemic and potentially highly regressive.

As we talk to executives, I think I've seen a big switch between the real economy and the capital markets. I would say five years ago, the energy sector and automotive sector were ahead in terms of thinking about this. That has changed markedly in the past 12 to 24 months. If you pull back the cover on capital markets and you look across banking, asset management, and insurance, the lead dog has been the banking sector. I think that has been driven initially by regulation coming out of Europe, particularly the Bank of England, that has made the case that climate change represents an existential threat to the financial system.

We're also seeing on the private equity side more around opportunity: people are very interested in how to invest and put new money to work into the kind of new green economy. We're beginning to see that reflected in valuations.

And then insurance within that plays a critical role in terms of transferring and mitigating risk. Within the capital markets, it's probably a little bit more behind, say, the banking sector, and I'm sure we'll get into that with a little more detail.

Kurt Strovink: Thank you, Dickon, for that. Kia, you can comment a little bit to the point on insurance and where the industry is today. What are some of the trends? How are insurance executives, in your mind, thinking about this differently now from what they might have a couple years ago?

Kia Javanmardian: The shift has not been at the same pace, depending on what segment you're in. The brokers and reinsurers are a bit ahead of the broader pack for understandable reasons, primarily as Dickon alluded to. A lot of the historical models won't be predictive of the future. When you think about the role reinsurance brokerage and reinsurers play, it's very critical to their business model to have a grasp on that.

When you look at the primary line carriers, it's been a bit of a tale of two cities. In the US, for those with a heavy presence in California, climate change has come, and they're seeing it with wildfires year over year, and they're feeling it acutely because the indications of the rate they need is far greater than what they're able to take in the state, as an example. You're seeing a subsegment really feel that and thinking through: how do I diversify, and how do I think about prevention and mitigation?

The broader industry on the primary line, I think, acknowledges it. There's a bit of difference in opinion on "Can I just price this in over time?" versus "Do I need to make a more proactive stance?" And I think the jury is a bit out in terms of where the industry is leaning on that dimension.

Kurt Strovink: Let's talk a little bit more in a detailed way just about the kind of reactions that we're seeing across the insurance industry. Antonio, obviously this has happened in a number of different ways, but I'm wondering if you could comment on some of the functional areas where you see some innovation beginning to happen—for example, underwriting.

Antonio Grimaldi: Insurers have started moving in the right directions, but I think much more can and should be done. For example, we see insurers working with customers on adapting to climate change. That means increasing resilience of their infrastructures, facilities, or supply chains. Much more should be done because climate change simply means that many of the technical insurance capabilities will need to evolve. Underwriting is a fascinating example.

In the space of underwriting, clearly new hazards will emerge, requiring new products and new underwriting solutions. Traditional models and, more broadly, past loss experience will not be predictive of the future, and that needs to be corrected. Obligations will change, requiring new techniques for portfolio management. And there will be more nonlinear effects at play. For example, what is the correlation between more frequent floods and the economic activity in a given region, making the work of underwriters even more complex? In a way, underwriting will need to become even more strategic.

Kurt Strovink: Kia, what about investment strategies? What kind of evolution are we seeing there, or changes in the insurance response?

Kia Javanmardian: One is literally their investment portfolio on the asset side of the balance sheet. We're starting to see a bit of thinking in terms of what they're willing to put money behind, partly reputationally, partly as an ESG measure. So seeing some movement there. I think it is more pronounced in Europe than in the US, given the regulatory environment.

On the broader investment question, we're seeing three major themes. One, as Antonio mentioned, is getting greater sophistication on underwriting.

Tranche two is a refresh in terms of: what markets do we want to double down and plan? So if you look at our portfolio, where do we feel more vulnerable? If you were to play some scenarios out in the future, does that have an implication of how we want to rebalance that portfolio accordingly?

"Traditional models and, more broadly, past loss experience will not be predictive of the future, and that needs to be corrected."

And then the third is, how do insurers play beyond risk transfer? There are a couple very prominent examples of carriers that are in the risk transfer business—but equally, if not more so, in the risk mitigation business, preventing things from happening. We're seeing a lot more dialogue on that, and we think it's a question of broadening the relevance of the industry beyond just pricing and transferring risk, but actually changing outcomes—whether it's at the front end or, when bad things do happen, what's the way to get recovery quickly and as seamlessly as possible?

The other one that does give us hope is the private-public partnership angle. What is that intersection between how carriers work with municipalities, regulators, and policy makers to create a sustainable model?

Kurt Strovink: Maybe on that point Kia just mentioned, any perspectives you'd offer, not just from an insurance perspective but, more broadly, the climate intent of regulators in this space in the next several years?

Dickon Pinner: I think that there is an ever-increasing drive toward transparency and disclosure. Because things are changing—it sounds so trite at first—but because the climate is changing, your previous estimation of your risk exposure is probably wrong. Right now, what we're seeing—and I think some of this comes up from the regulation of the Bank of England initially, but through the TCFD, which asks for disclosure of transition risk, which actually is quite easy to calculate—we're beginning to see the transition risk as a result of that is quite well priced in. Physical risk, by contrast, is actually very hard to price in because the translation from hazard to exposure to damage and the manifestation of that in cash flows is just hard to model. It actually requires quite a bit of judgment in terms of the second, third, and fourth orders.

There will be a kind of ongoing push for transparency from the regulator. We may also see, in the case of transition risk—and I get back to the point that Kia mentioned—we are in a world where risk is just increasing day over day because more carbon is going into the system, so just transferring that risk is insufficient. In fact, at a macro scale, this is about massive capital allocation and reallocation. Thinking through the price signals that the insurers can send to divert capital that currently is going into risky assets that further promote risky behavior, to burn down that risk, versus just transfer it, is actually critical because the rising tide of risk means the transferring it doesn't solve the problem.

There are some unfortunate examples where you can see why the regulators made the move they have. If you're on the West Coast, I think there's some regulation that says the insurers could not drop insurance for coverage for a year and could not price on a forward-looking basis but just on a historical basis. I think what that would mean is, after that period is over, a lot of insurers will exit the state. That doesn't seem like an effective response, but these are inherently connected to political systems, as well. I think we do need some more price signals, either from the insurers themselves or the regulator to help redirect that capital to a way that promotes the right behavior.

Kurt Strovink: I want to talk a bit more about the risks being quite different in different countries. We know that the tyranny of averages lies, but particularly here, there's a lot of difference across different regions of the world and yet some common themes. Antonio, I'm wondering if you could comment from a European perspective: how do you see the nature of the risks evolving, and maybe by different regions even within Europe?

Antonio Grimaldi: Europe seems to be most affected by heat and drought. The five hottest years ever recorded in history were the past five years. In 2018 and 2019, Europe experienced two consecutive summers of severe drought. This was unprecedented in the past 250 years. What I think is more concerning, though, is that in common insurance terms, we would have called these events one-in-250-years events, but the changing nature of climate risk means that the likelihood of these events actually repeating in central Europe over the next 50 years will increase sevenfold. And this really makes us all think about how important addressing climate change is.

Clearly, different parts of Europe are exposed differently. We're talking about flood in the UK, winds in Italy. We observe that insurers have increasingly become more aware of the problem that lies ahead, Europe particularly. We have some of the most sophisticated global specialty insurers and reinsurers. This insurance needs to lead the way in terms of how we tackle climate risk. Many of the largest European insurance groups actually are making fighting climate change a core part of their ESG strategies.

And finally, regulators, particularly in the UK, are building greater awareness and facilitating the announcement of these capabilities. Earlier this year, for example, the Bank of England was very clear that there was a gap in capabilities, and it requested firms and issuers to act. This means really taking a more strategic approach to climate risk. This means conducting assessments on the physical side and the transition side, but also considering different scenarios and running stress testing under both to understand the impact.

Taking a different spin to what Dickon said earlier, I would say that insurers, to some extent, are particularly familiar with natural events and physical risk, but actually, transition risk may be a blind spot for them. Therefore, building capabilities in understanding the implications of transition risk, both on the asset sides and the liabilities sides, would be also as important.

Dickon Pinner: I would maybe just add on this topic of transition risk because, clearly, physical risk is a huge issue in closing the protection gap. But on the transition risk, if I step back and think through the macro problem, it's actually about: how do you transition the installed base of the economy—which is today, by definition, high carbon—in an orderly fashion from brown to greener to green?

As I mentioned earlier, the good news is that transition risk is beginning to get priced in. The bad news, to some extent, is that transition risk is getting priced in, and the pendulum might swing so much, such that it may be difficult from an embarrassment reason or a reputation reason to get insurance for these fossil-based assets as they transition from brown to green. That would be a challenge because you don't want those assets that are currently in the public eye to go private, for example, and into a kind of opaque environment. I think there needs to be mechanisms to allow insurers to continue to insure the real economy of good actors who are trying to transition and not just abandon some of the assets that are going through that transition, or that would lead to socioeconomic dislocation and the more disorderly approach and rapid repricing.

Kurt Strovink: I want to add a dimension to this, maybe just following on last point there, Dickon. Are there examples in other industries that you think would be either provocative or suggestive for executives who are thinking about transition in the way that you're describing it? Where is the debate and dialogue?

Dickon Pinner: One of the things we're seeing in other industries is we're seeing the industry self-convene. We see it in particularly the ones that have perhaps known the transition was going to be a bigger problem for them—so the oil and gas sector, the power sector, many of the different industries. And they self-convene to try and understand where they can collaborate, where they need to define standards, and what role the regulators should play. I think we're even beginning to see that now in the banking sector. On the topic of climate, they're trying to understand which areas of data, for example, should be commonly shared across banks versus becoming a source of competitive advantage.

We're also seeing in, say, asset management, you see lots of groups associated with becoming net-zero investors. You've got trillions of dollars of assets under management saying—if this is the direction of travel, what does it look like to get from A to B? We're beginning to see the same thing in banking. Again, given the critical role that insurance plays in providing those signals to direct and redirect capital, that might be another interesting thing to consider, if it doesn't already exist.

Kurt Strovink: Let me raise another angle to this problem. Obviously, this is one that has many different facets. What about the concept of the demand from different stakeholders—whether they're employees, customers, or other partners—around making climate change progress in various ways? I'm thinking here about the E in ESG and the degree to which the next generation of employees wants to work for a firm that is doing something in this space that's innovative, etc. How much do we think this will be an increasing requirement for firms that get out in front of this for their own employees, and stakeholders generally, and partners with whom they collaborate?

Dickon Pinner: Just across industries, we see, in general, a kind of multistakeholder approach taking grip now—so across the shareholders, the regulator, the customer, the employer. On the employee side, we're definitely seeing this across industries as becoming a part of the war for talent, but I'll let others comment specifically on this sector.

Antonio Grimaldi: In Europe, it is an increasing topic. Several insurers are increasingly thinking about ESG, and how can they become responsible underwriters? How can they become responsible investors? And what is the obligation that the industry has with regard to employees and shareholders, but actually to the world itself? So I think this is, in my mind, one of the very interesting angles that the industry could utilize in order to overcome some of the short term-ism that the industry might have, given the annual policy cycle.

Kia Javanmardian: And Antonio, on that I think one of the angles we've been talking to executives about is: how can you use the notion of climate change and the role of the industry in effecting that as a source of inspiration and meaning for employees today, but also in new sources of talent? What that could mean to the new generation of talent and how you can reframe it: We're not an insurance company. We're here to protect livelihoods. We're here to protect the economy. We're here to protect the Earth. And we're not just risk transferring; we're convening and doing something that is going to move the needle because we control capital. There is likely an angle there that has not fully been realized that does, as a practice, give inspiration and energy.

Kurt Strovink: Who are the actors in the companies that we think we're talking to in this conversation? Who are the executives? What roles do they play? How broadly across the senior team is this area of concern? Who are the folks that should be having these discussions and dialogues over the next 12 to 24 months in a greater and greater way?

Kia Javanmardian: We think if the CEO is not involved in the conversation, it's probably not this conversation. The reason we say that is this is a fundamental role of carriers: how they add value to clients, where they play, how they allocate capital. So you look at that at a headline view, and it is very much a corporate strategy and kind of direction of travel for a company.

The ESG angle, while very important, is just a part of this. When you really peel it back, this conversation should be an existential one of: where are we going to thrive, how are we going to add value, and what do we have to do to shift where we deliver for our clients?

Dickon Pinner: I get back to Kia's point. To address this problem, it's about capital allocation and reallocation. And so by definition, this is a CEO-level topic. Specifically, where we're seeing it manifest itself in different industries: in the banking sector, in Europe, it's through the CRO—the chief risk officer—but it's increasingly becoming a commercial opportunity to deploy new sustainable infrastructure, so there's a big commercial lens to this. In the energy sectors, this goes straight through the businesses.

Sector by sector, we typically see one or two companies with a sort of outsized voice and the CEOs who really get it leaning forward and trying to define the future path for the industry because they know: one, the industry or the sector is at threat if they do nothing; and two, they realize there's a competitive advantage if they get ahead of it. So I think this is a top-team issue, and if it's not being dealt with at that level, it's hard to get the right level of action and activity around such an important thing.

Antonio Grimaldi: I fully agree—this is a top-team discussion. But I also want to call out explicitly the fact that the implications are profound throughout all the levels of an insurer. It is very hard to identify a function within insurance that is not affected by climate risk. We talked extensively about underwriting and pricing. Claims needs to evolve from paying financially, compensating financially, to actually rebuilding and further building resilience and risk mitigation to capital management, reserving actuarial propositions for employees. It is a profound change for the whole industry.

Kurt Strovink: What do we think about collaboration opportunities more broadly, as insurance executives work maybe even with public sector in these areas that are going to be increasingly important? What's the outlook on that? If I'm an insurance executive that's looking at this in an innovative way, what kinds of collaboration should I expect to see or shape, even with the public sectors as part of this? Kia, do you have a perspective on that?

Kia Javanmardian: The opportunities are for the taking. Given the nature of this systemic risk we're talking about, it is not carrier specific. We absolutely think there is a conversation to be had or executives at insurance companies working in partnership with one another and public sector to think through: what is the future policy that will help shape how risk is built up? Just a simple example of building codes, where and how to build for resiliency so we don't keep falling into the same trap, is a massive opportunity for the industry and one that will require cooperation.

The second part of it is one of relevance. If you look at the total risks in the world and the percentage that insurance covers, it has been on a steep decline. You think about cyber; you think about a lot of these long-tail, hard-to-underwrite risks. And so it's not just one of upside; it's one of also ensuring the value and relevance of the industry, which will require some cooperation.

Antonio Grimaldi: In terms of public-private partnerships, this can be quite deep. Clearly, there are some risk-transfer solutions. For example, in the UK, there's Flood Re, and the government in the US has been working for many years on Florida flood protection. But this can be done more systematically across all climate-exposed countries, especially in the emerging markets. I think this is an opportunity that some insurers are looking at first and foremost.

Secondly, there is a risk mitigation opportunity. So we could envisage insurers driving resilience in the climate-vulnerable countries, working with governments and local authorities where assets should be developed, and where assets should not be developed. How dwellings should be designed and with what standards. There are a number of different solutions where the industry could collaborate actively with governments to remove risk from the equation, as opposed to transferring it.

Kurt Strovink: Dickon, maybe you could share kind of the last word on this as we think about public partnerships of various kinds.

Dickon Pinner: I think the general framing is that the risk in the system is just going up over time and will continue to go up. If you don't have a successful or a good collaboration between private sector insurance and the public sector, there are two sets of folks who hold the risk: it's the consumer and the government. I think understanding what actions can happen by virtue of public-private partnership to not be those two stakeholders that end up holding the risk would be very beneficial.

You've got the physical risk gap. We've also got the transition piece. And then the third one, which was alluded to earlier, is the disaster response. Is there a way to pre-fund some of those, such that the poorest areas of the world, where lots of this physical risk often manifests itself, don't then have to go around, cap in hand, post an event. Even days' or weeks' notice of an upcoming event, you can make a material difference if you can prepare for it, but that does require a public-private partnership. So a big role to play on such a complicated topic.

Kurt Strovink: Well, I think we'll leave it there. Dickon, Kia, Antonio, thank you very much for joining us as part of this *Reimagine Insurance* series. I know you're available for any follow-up questions that our listeners may have on these topics. This is an area that has multiple aspects to it but is a very important one for innovation for the category, maybe one we have a rightful role as an insurance category in. If we think about the signals for capital reallocation that's coming, some of the points of view of the relevance of the industry, as Kia mentioned. And if we think about that, this is a preeminent concern for many, many people inside of insurance companies today at all levels of function roles, as Antonio pointed out.

Thank you for joining us today. We will look forward to following up with you in future sessions on *Reimagine Insurance*. Please do tune in. Thank you.

Antonio Grimaldi is a partner in McKinsey's London office, **Kia Javanmardian** is a senior partner in the Chicago office, **Dickon Pinner** is a senior partner in the San Francisco office, and **Kurt Strovink** is a senior partner in the New York office.