Webinar

Future Proofing: How Climate Data and Tech Can Reduce Asset Risk

Date: January 13, 2023

00:00:04 --> 00:00:08:	Hello, welcome to utilize webinar future proofing how climate data
00:00:08 --> 00:00:12:	and tech can reduce asset risk. I'm Billy Grayson, executive
00:00:12 --> 00:00:17:	vice president for senators and initiatives. I, from previous webinars
00:00:17 --> 00:00:20:	know that the audience will slowly roll in, so I'm
00:00:20 --> 00:00:23:	going to repeat this two or three times and we'll
00:00:23 --> 00:00:26:	be getting started in just about a minute.
00:00:37 --> 00:00:40:	So to those of you that are rolling in, thank
00:00:40 --> 00:00:43:	you. Welcome. Thank you for joining us. I'm Billy Grayson,
00:00:43 --> 00:00:47:	executive vice president for centers and initiatives at the Urban
00:00:47 --> 00:00:50:	Land Institute. Our webinar today is future proofing how climate
00:00:50 --> 00:00:53:	data and tech can reduce asset risk. We'll be getting
00:00:54 --> 00:00:57:	started in just one minute once I see the participants
00:00:57 --> 00:00:58:	list slowly starts to tick.
00:00:58 --> 00:01:01:	Yeah. So thank you again for joining us.
00:01:32 --> 00:01:35:	All right. It's 10:01 AM and 1/2 East Coast time.
00:01:35 --> 00:01:39:	Uh, welcome and thank you for joining us for this
00:01:39 --> 00:01:42:	URL I webinar future proofing how climate data and tech
00:01:42 --> 00:01:46:	can reduce asset risk. I'm Billy Grayson, executive vice president
00:01:46 --> 00:01:50:	for centers and initiatives at UL I and your moderator
00:01:50 --> 00:01:53:	today. I'd like to start by thanking all of our
00:01:53 --> 00:01:56:	panelists for joining today. This is got to be from
00:01:56 --> 00:02:00:	an industry perspective, one of the more diverse panels that
00:02:00 --> 00:02:02:	we've had at ULI in recent.
00:02:02 --> 00:02:05:	Months, which is going to be fantastic. And I'd like
00:02:05 --> 00:02:08:	to thank all the audience for joining us today as

00:02:08 --> 00:02:12:	well. We, ULI, have been studying climate risk in real
00:02:12 --> 00:02:15:	estate investment for some time now and we've really seen
00:02:15 --> 00:02:19:	a proliferation of interest from across our Member spectrum on
00:02:19 --> 00:02:23:	how Members can better assess price and mitigate climate risk
00:02:23 --> 00:02:27:	in their real estate development and investment decisions.
00:02:28 --> 00:02:31:	I'd like to start with a couple of quick housekeeping
00:02:31 --> 00:02:34:	items. It's always fun to talk logistics. At the start
00:02:34 --> 00:02:37:	of a webinar. We have a chat and we'd love
00:02:37 --> 00:02:40:	to use that chat to share resources and links with
00:02:40 --> 00:02:43:	you that will help you learn more about this topic
00:02:43 --> 00:02:46:	or we'll refer to things that we covered during the
00:02:46 --> 00:02:50:	discussion today. We would really love for you to use
00:02:50 --> 00:02:53:	the Q&A section starting as early as you see fit.
00:02:53 --> 00:02:56:	We're hoping to have a lot of audience questions today.
00:02:56 --> 00:02:58:	Please put those in the Q&A.
00:02:58 --> 00:03:00:	Section. We'll be able to answer some of them on
00:03:00 --> 00:03:03:	the fly, and other ones I will tee up for
00:03:03 --> 00:03:05:	our panelists for our discussion today.
00:03:06 --> 00:03:09:	Um, Lee and Lindsey, I hope that's all of the
00:03:09 --> 00:03:13:	logistics. I think that's all of the logistics. So let
00:03:13 --> 00:03:16:	me kick this off the little stage setting.
00:03:18 --> 00:03:22:	In partnership with companies across the real estate industry, utilize
00:03:22 --> 00:03:26:	been working to better understand the connection between climate risk
00:03:26 --> 00:03:29:	and real estate value and how real estate owners and
00:03:29 --> 00:03:33:	developers can better assess and mitigate this risk and development
00:03:33 --> 00:03:36:	and investment strategy. Over the past few years, we've seen
00:03:37 --> 00:03:40:	an explosion like a literal explosion of tools and climate
00:03:40 --> 00:03:44:	risk analytics strategies to help owners and investors better understand
00:03:44 --> 00:03:47:	this risk from our vantage point, most if not all
00:03:47 --> 00:03:48:	of these tools.
00:03:48 --> 00:03:51:	Can offer really valuable insights to ULI members, but it
00:03:52 --> 00:03:54:	can also be a challenge to figure out how to
00:03:54 --> 00:03:58:	use these tools to effectively assess and price climate risk
00:03:58 --> 00:04:02:	and how to communicate this risk effectively to investors, tenants
00:04:02 --> 00:04:05:	and other stakeholders. In this analysis you will I published
00:04:05 --> 00:04:08:	a paper on this late last year on how to

00:04:08 --> 00:04:11: choose, use and better understand climate risk in partnership with

00:04:11 --> 00:04:14: LaSalle. And we also like late last year launched a

00:04:15 --> 00:04:18: partnership with the 1st St. Foundation. We had more than

00:04:18 --> 00:04:19: 40 UL member.

00:04:19 --> 00:04:23: Leaders participating in focus groups to help refine the dashboards

00:04:23 --> 00:04:26: and reports produced by their tool risk Factor Pro. I

00:04:26 --> 00:04:29: should say at this point that all UI members can

00:04:29 --> 00:04:32: get 5 free property risk reports just by being a

00:04:32 --> 00:04:35: UX UI member through risk Factor Pro. I think this

00:04:35 --> 00:04:38: is something like a $400.00 value, so you're welcome. I

00:04:38 --> 00:04:41: hope it's a valuable resource for you as a UI

00:04:41 --> 00:04:44: member. We're also going to include a link to that

00:04:44 --> 00:04:46: member discount at the in the chat.

00:04:47 --> 00:04:50: So I'm excited for the conversation today. One more plug,

00:04:50 --> 00:04:52: let's go to the next slide for a UI activity.

00:04:55 --> 00:04:55: R.

00:04:56 --> 00:04:59: Next resilient summit is happening on May 15th in Toronto.

00:04:59 --> 00:05:02: This is the day before the ULI Spring meeting and

00:05:02 --> 00:05:05: this is our chance that you allow to bring together

00:05:05 --> 00:05:08: leaders in the fields of real estate and resilience to

00:05:08 --> 00:05:12: share solutions to protect communities and investments from climate risk.

00:05:12 --> 00:05:14: You can scan the QR code on the screen to

00:05:14 --> 00:05:17: learn more. I don't have my cell phone with me,

00:05:17 --> 00:05:19: so I would also like to point you to the

00:05:19 --> 00:05:22: chat where Lindsey is letting you know that you can

00:05:22 --> 00:05:25: also register for the event at uli.org/resilience Summit.

00:05:26 --> 00:05:29: And with that, let me introduce our panel for today.

00:05:31 --> 00:05:36: So first, we have Brittany Ryan, responsible investment professional, Nuveen

00:05:36 --> 00:05:40: real estate, Emily Westendorf, vice president for climate risk programs

00:05:41 --> 00:05:44: at Fifth Third Bank, and David Rochlitz, the senior economic

00:05:44 --> 00:05:48: specialist at the Federal Reserve Bank of Kansas City. Thank

00:05:48 --> 00:05:52: you all again for joining us for the conversation today.

00:05:54 --> 00:05:58: David, let's start with you. Could you provide a brief

00:05:58 --> 00:06:01: introduction to yourself and what you do at the Federal

00:06:01 --> 00:06:05: Reserve? And then we'll go to Brittany and Emily and

00:06:05 --> 00:06:08: then we'll dive into our questions.

00:06:09 --> 00:06:13: Thanks, Billy. I'm David rajkovich. I'm a senior economic specialist

00:06:13 --> 00:06:16: here at the Denver branch of the Federal Reserve, Federal
00:06:16 --> 00:06:19: Federal Reserve Bank of Kansas City. So in addition to
00:06:20 --> 00:06:23: my policy and outreach work, I also do primary research
00:06:23 --> 00:06:24: both in energy and climate.
00:06:26 --> 00:06:30: Great. Brittany, thank you for joining us.
00:06:30 --> 00:06:33: Thanks, Billy. So I'm with Nuveen real estate. We are
00:06:33 --> 00:06:37: a real estate investment manager with about 150 billion assets
00:06:37 --> 00:06:41: under management. We invest globally across all major property types
00:06:41 --> 00:06:45: including alternatives and I am on the SG sustainability team
00:06:45 --> 00:06:49: for America's focusing on ESG integration for the equity and
00:06:49 --> 00:06:50: debt portfolios.
00:06:52 --> 00:06:54: And Emily, welcome.
00:06:55 --> 00:06:58: Hi, I'm a client risk program manager for the third.
00:06:58 --> 00:07:01: I've been in banking for 10 years. I've been in
00:07:01 --> 00:07:04: risk management for most of that. I've been running a
00:07:04 --> 00:07:07: risk program to being in large potential risk events like
00:07:07 --> 00:07:11: natural disasters and cyber attacks, risk metrics, risk governance. Like
00:07:11 --> 00:07:14: I said, I'm Mr. Third Bank. For those of you
00:07:14 --> 00:07:17: who aren't familiar, we are a regional bank with both
00:07:17 --> 00:07:20: consumer and commercial products. We have a little over $200
00:07:20 --> 00:07:23: billion in assets and our retail footprint, which would be
00:07:23 --> 00:07:26: the majority of where we're operating and servicing.
00:07:26 --> 00:07:29: Customers is in the Midwest and the Southeast. So think
00:07:29 --> 00:07:32: about Ohio, Indiana, Michigan all the way down to Florida.
00:07:32 --> 00:07:36: We do offer a mortgage and commercial lending products in
00:07:36 --> 00:07:38: nearly all 50 States and then we have offices and
00:07:38 --> 00:07:41: third parties across the US and a couple of countries
00:07:41 --> 00:07:44: globally as well. My focus and my current role, I'm
00:07:44 --> 00:07:48: building out how my bank manages climate related risks, including
00:07:48 --> 00:07:51: really the physical risks that we're focusing on today, but
00:07:51 --> 00:07:52: as well as transition risk.
00:07:54 --> 00:07:58: Awesome. Thanks, Emily. David, our audience is familiar with all
00:07:59 --> 00:08:02: three of these companies, but they may not be familiar
00:08:02 --> 00:08:06: with exactly what the Federal Reserve Bank of Kansas City
00:08:06 --> 00:08:09: does. Could you give a just a quick intro on
00:08:09 --> 00:08:13: the work of the Federal Reserve Bank of Kansas City
00:08:13 --> 00:08:16: and then share a little bit about why climate risks

00:08:16 --> 00:08:19: are of interest to you at the bank or at
00:08:19 --> 00:08:20: the reserve?
00:08:20 --> 00:08:23: That's a great question. So I'll leave an outline of
00:08:23 --> 00:08:24: sort of the Federal Reserve.
00:08:24 --> 00:08:28: System to begin with, just to sort of baseline where
00:08:28 --> 00:08:31: we fit in the Federal Reserve, U.S. central Bank, you've
00:08:32 --> 00:08:35: got the Board of Governors in DC and 12 regional
00:08:35 --> 00:08:38: reserve banks. We are one of those. We cover A7
00:08:38 --> 00:08:43: state area central United States, so western Missouri, Nebraska, Kansas,
00:08:43 --> 00:08:47: Oklahoma, Wyoming, Colorado and northern New Mexico. So we have
00:08:47 --> 00:08:51: a pretty heavy footprint in agriculture and energy. So those
00:08:51 --> 00:08:53: are two two major industries.
00:08:54 --> 00:08:57: That we look at and also those are those are
00:08:57 --> 00:09:00: industries that are part and parcel to sort of the
00:09:00 --> 00:09:04: climate discussion with respect to the work that we do
00:09:04 --> 00:09:07: at the the Kansas City fed as it relates to
00:09:07 --> 00:09:10: climate. We we like to focus our work be it
00:09:10 --> 00:09:13: you know research or policy work sort of in the
00:09:13 --> 00:09:16: industries and within the region that we focus on. So
00:09:17 --> 00:09:20: you know with respect to climate we've done some work
00:09:20 --> 00:09:24: on drought in the agricultural sector and how that natural
00:09:24 --> 00:09:24: hazard.
00:09:24 --> 00:09:28: Effects on that industry and those actors, we've also done
00:09:28 --> 00:09:31: some work more broadly on sort of sea level rise
00:09:31 --> 00:09:34: and real estate markets because we have the scale and
00:09:34 --> 00:09:37: sort of ability to do that. But and then additionally
00:09:38 --> 00:09:42: on the transitional risk side, energy systems are transitioning. So
00:09:42 --> 00:09:45: when we think about the energy sector within our district
00:09:45 --> 00:09:48: or nationally or globally, we've got sort of our ear
00:09:48 --> 00:09:51: to the ground on you know how that how that
00:09:51 --> 00:09:54: industry is transitioning. So what areas are on the decline
00:09:55 --> 00:09:57: and sort of what areas are on the rise.
00:09:59 --> 00:10:02: It's in your view, how how significant are these risks
00:10:02 --> 00:10:05: and what, what steps could we take to mitigate them?
00:10:05 --> 00:10:08: It's a big question. You just scratch the surface maybe
00:10:08 --> 00:10:09: to start.
00:10:09 --> 00:10:13: It's a great question and I'll probably give you a
00:10:13 --> 00:10:17: somewhat elaborate non answer. So I'll start with, you know
00:10:17 --> 00:10:21: the Federal Reserve isn't a climate policy maker, so we're
00:10:21 --> 00:10:24: not that. When we think about the significance of risk,

00:10:24 --> 00:10:28:	it's wide-ranging. So I think it's important to define your
00:10:28 --> 00:10:30:	terms when you think about.
00:10:30 --> 00:10:33:	Climate risk. And then you can get into the specifics
00:10:33 --> 00:10:36:	of those things. So, you know, are we talking about
00:10:36 --> 00:10:40:	physical risks, natural hazards or are we talking about transitional
00:10:40 --> 00:10:43:	risk? If we're talking about physical risk, it's a question
00:10:43 --> 00:10:46:	of which hazard connected to which industry. So for example,
00:10:46 --> 00:10:50:	I've already mentioned drought in the agricultural sector, drought, water
00:10:50 --> 00:10:54:	management, it's a significant risk for certain components of the
00:10:54 --> 00:10:58:	agricultural sector, especially if they don't have access to irrigation,
00:10:58 --> 00:11:00:	if we're talking about hurricane sea level rise.
00:11:00 --> 00:11:04:	For coastal inundation, you're thinking about low lying areas and
00:11:04 --> 00:11:08:	coastal real estate markets. You know, notably if you're in
00:11:08 --> 00:11:12:	the southeastern United States, those hazards can be significant.
00:11:12 --> 00:11:16:	And then if we're talking about transitional risks, you know,
00:11:16 --> 00:11:21:	energy systems are transitioning. So you've got fossil fuel industries
00:11:21 --> 00:11:24:	where you know, high carbon intensity producers might be at
00:11:25 --> 00:11:28:	risk. Whereas on the other side of the equation, what
00:11:28 --> 00:11:31:	we're seeing in our district is a rise in the
00:11:31 --> 00:11:35:	renewable energy sector. So there are opportunities for you know,
00:11:35 --> 00:11:40:	lower carbon, you know, energy systems, transmission, storage, those types
00:11:40 --> 00:11:42:	of things. So you know, long story, longer.
00:11:43 --> 00:11:45:	I think you got to be specific about the risk
00:11:45 --> 00:11:48:	and specifically about the industry that we're talking about. And
00:11:48 --> 00:11:51:	those risks are significant for some, but maybe less so
00:11:51 --> 00:11:51:	for others.
00:11:53 --> 00:11:57:	So from the whole economy to a commercial banks investment
00:11:57 --> 00:12:00:	landscape, I'd like to turn it over to Emily. Emily,
00:12:00 --> 00:12:04:	could you share a little bit about why Fifth Third
00:12:04 --> 00:12:08:	got into climate risk analysis and and what you're doing
00:12:08 --> 00:12:12:	right now to better assess climate risk for your investment
00:12:12 --> 00:12:13:	portfolio?
00:12:15 --> 00:12:19:	Yeah. So for us, climate risk became a focus because

00:12:19 --> 00:12:23: there was a lot of investor conversation around climate risk,
00:12:23 --> 00:12:26: you know, ESG risks as well. And so that's kind
00:12:26 --> 00:12:30: of what I originally started the conversation over the last
00:12:30 --> 00:12:34: few years, obviously we've seen regulators like the Fed and
00:12:34 --> 00:12:38: the OCC that we're accountable to really bringing that up
00:12:38 --> 00:12:41: as part of the conversation as well, when you think
00:12:42 --> 00:12:45: about things like a variety of, you know, natural disaster.
00:12:46 --> 00:12:49: Events and think about the fact that we do have
00:12:49 --> 00:12:53: Florida is a really key player within our footprint that's
00:12:53 --> 00:12:56: continued to bring climate risk to the focus.
00:12:57 --> 00:13:00: And what what type of tools are you using to
00:13:00 --> 00:13:02: help you do this climate risk assessment?
00:13:04 --> 00:13:07: Yeah. So we are thinking about it both ways. You
00:13:07 --> 00:13:09: know, I think those of you who might be a
00:13:09 --> 00:13:12: little bit more familiar there, those risks associated with the
00:13:13 --> 00:13:16: transition to a lower carbon economy, we call them transition
00:13:16 --> 00:13:19: risks and then there's also the physical risk. So physical
00:13:19 --> 00:13:22: risks I think have been more so the focus for
00:13:22 --> 00:13:24: us, if we get started and I think that's got
00:13:24 --> 00:13:27: a lot to do with that tangible nature of physical
00:13:27 --> 00:13:30: risk, it's a little bit easier to understand. And so
00:13:30 --> 00:13:32: for us, the key tool that we're using is the
00:13:32 --> 00:13:34: data sets offered by 1st St.
00:13:34 --> 00:13:35: Foundation.
00:13:39 --> 00:13:41: Brittany, let's kick it over to you.
00:13:42 --> 00:13:46: Large real estate investment management portfolio. How? How are you
00:13:46 --> 00:13:50: assessing risks and what sorts of tools are you using
00:13:50 --> 00:13:53: right now to assess client risk in your portfolio?
00:13:54 --> 00:13:56: Yeah. So, uh, we have I, I would say boil
00:13:56 --> 00:13:59: it down to it's about getting the data, building a
00:13:59 --> 00:14:03: process for embedding that into your investment process and then
00:14:03 --> 00:14:06: reporting it out. So for the data, we procure climate
00:14:07 --> 00:14:10: analytics firms to help us understand that actual portfolio risk
00:14:10 --> 00:14:13: in the future at a regional level. And then we
00:14:13 --> 00:14:17: also leverage additional tools like First streets risk factor to
00:14:17 --> 00:14:21: really drill down on those property level details. So that's
00:14:21 --> 00:14:24: step one on, OK, let's let's get an understanding of
00:14:24 --> 00:14:25: what the risk is.
00:14:25 --> 00:14:28: And then for the process, what we've done is built
00:14:29 --> 00:14:33: a ESG evaluation process that requires our investment and portfolio

00:14:33 --> 00:14:36: teams to screen for that risk that we flagged, build

00:14:36 --> 00:14:39: it into the underwriting and then identify or budget for

00:14:39 --> 00:14:44: mitigation measures. So the toolkit that we've developed provides different

00:14:44 --> 00:14:49: thresholds per climate hazard, the downside scenario assumptions to consider,

00:14:49 --> 00:14:53: the mitigation measures that should be either budgeted or identified

00:14:53 --> 00:14:56: as in place and then the types of things that.

00:14:56 --> 00:15:00: That we recommend our investment teams build into their financial

00:15:00 --> 00:15:04: assumptions would be at the building level, maybe repair maintenance

00:15:04 --> 00:15:09: cost, the cost to install mitigation measures increases to utility

00:15:09 --> 00:15:12: costs because of of of these physical impacts. And then

00:15:12 --> 00:15:16: maybe even at the market level of considering to expand

00:15:16 --> 00:15:19: their cap rate because there may be reduced rental demand

00:15:19 --> 00:15:24: or just market shifts investors less interested in certain areas.

00:15:24 --> 00:15:27: So these are the types of assumptions that we advise.

00:15:27 --> 00:15:31: Our investment teams to take into account to actually consider

00:15:31 --> 00:15:34: these these risks and then I noted another component of

00:15:34 --> 00:15:37: that is for reporting. So then all that data that

00:15:37 --> 00:15:41: we've collected to map against our portfolio, what is that

00:15:41 --> 00:15:44: risk? We have internal dashboards to present that back to

00:15:44 --> 00:15:48: the investment teams. Our portfolio managers can see what is

00:15:48 --> 00:15:51: their percent AUM exposed, how do they want to reallocate

00:15:51 --> 00:15:55: going forward and then similarly our asset managers get that

00:15:55 --> 00:15:58: information so they can during the budget.

00:15:58 --> 00:16:01: Season, see what are we exposed to what, what mitigation

00:16:01 --> 00:16:04: measures do we perhaps need to include in the budget

00:16:04 --> 00:16:07: for the upcoming year and then of course external reporting

00:16:08 --> 00:16:11: to investors. So that's that's really how we're incorporating the

00:16:11 --> 00:16:15: considerations of climate risk in our in our whole process.

00:16:16 --> 00:16:19: Right. So stepping back, what, what drove you to do

00:16:19 --> 00:16:21: this and what do you think is driving other real

00:16:21 --> 00:16:25: estate investment managers to take the step of doing this

00:16:25 --> 00:16:28: type of physical and transition client risk assessment?

00:16:28 --> 00:16:31: Yeah. So I will wholeheartedly echo what Emily said and

00:16:32 --> 00:16:35: unpack that a little further. So All in all, climate

00:16:35 --> 00:16:39: risk is financial risk, right? It's our fiduciary duty on

00:16:39 --> 00:16:43: behalf of our investors to manage risks to investment performance

00:16:44 --> 00:16:46: and capital raising. So climate change.

00:16:46 --> 00:16:50: In transition risk, which Emily clearly defined, they pose potentially

00:16:50 --> 00:16:54: material risks to the business and it is just inherently

00:16:54 --> 00:16:57: part of responsible investing to actually make sure these are

00:16:57 --> 00:17:02: systematically considered. So more specifically, as Emily mentioned, it's about

00:17:02 --> 00:17:06: capital, so existing and potential clients, investors, they want to

00:17:06 --> 00:17:09: see not only what is portfolio exposure, but how is

00:17:09 --> 00:17:12: that being factored into the decision making, how are portfolio

00:17:12 --> 00:17:17: managers reallocating their fund accordingly or actually mitigating the risk

00:17:17 --> 00:17:18: that is identified.

00:17:18 --> 00:17:22: Within the portfolio, it's also about compliance with which Emily

00:17:22 --> 00:17:26: mentioned and that's twofold. There's major national and regional regulation

00:17:26 --> 00:17:30: requiring climate risk disclosure. So very robust, as robust as

00:17:30 --> 00:17:34: your financial reporting. What is that exposure? But then there's

00:17:34 --> 00:17:37: also on the flip side, local ordinances that are putting

00:17:37 --> 00:17:41: energy and carbon limits, carbon limits on buildings. So you

00:17:41 --> 00:17:44: face fines with not not keeping up with the market

00:17:44 --> 00:17:47: in that way either. And then I would say also

00:17:47 --> 00:17:48: it's about consumers.

00:17:48 --> 00:17:51: As a real estate industry, right, we do have to

00:17:51 --> 00:17:54: pay attention to what our tenants are looking for and

00:17:54 --> 00:17:57: major blue chip tenants have their own SG goals and

00:17:57 --> 00:18:01: are either demanding green buildings or having those conversations of

00:18:01 --> 00:18:04: what can be done so that that building can fit

00:18:04 --> 00:18:06: their own goals. So and then I would also add

00:18:06 --> 00:18:09: it's it's not just Nuveen real estate doing this in

00:18:09 --> 00:18:13: terms of investment managers and we're all keeping each other

00:18:13 --> 00:18:17: honest and keeping open communication because we really are all

00:18:17 --> 00:18:19: working toward the same goal, so.

00:18:19 --> 00:18:22: You have your your fellow investment managers doing the same

00:18:22 --> 00:18:25: thing, thinking about this and really trying to move in

00:18:25 --> 00:18:26: that same direction.
00:18:27 --> 00:18:30: We've been hearing from a lot of investment managers that
00:18:30 --> 00:18:32: they picked up a tool just to meet a compliance
00:18:32 --> 00:18:35: threshold from an investor. And now they're looking at three
00:18:35 --> 00:18:39: or four tools and they're getting insights into their portfolio
00:18:39 --> 00:18:42: that they didn't expect. And some of that is complicating
00:18:42 --> 00:18:44: the stakeholder engagement and and some of it is actually
00:18:45 --> 00:18:45: improving it.
00:18:47 --> 00:18:49: How many tools do you have right now that you're
00:18:49 --> 00:18:50: looking at?
00:18:51 --> 00:18:53: Well, you know, I would say a few years ago
00:18:53 --> 00:18:56: it we really did have a compilation and we were
00:18:56 --> 00:18:59: pulling a lot from publicly available sources like.
00:19:00 --> 00:19:03: FEMA maps and wildfire risk to communities which we still
00:19:03 --> 00:19:07: use just whatever and and risk factor went back in
00:19:07 --> 00:19:10: the day when it was originally flood IQ and and
00:19:10 --> 00:19:14: seeing that for the residential properties. So we had that.
00:19:14 --> 00:19:17: We've boiled it down a little bit more but we
00:19:17 --> 00:19:20: still rely on those. Like I said it's it's a
00:19:20 --> 00:19:23: mix of those. A lot of the climate providers are
00:19:24 --> 00:19:27: giving more of a bird's eye view right. It's this
00:19:27 --> 00:19:30: regional exposure and then you need to supplement.
00:19:30 --> 00:19:34: With these additional tools to get drilled down into that
00:19:34 --> 00:19:38: that property level specifics and and so yeah it's it's
00:19:38 --> 00:19:39: a handful I'd say.
00:19:39 --> 00:19:40: Yeah.
00:19:40 --> 00:19:43: Yeah, David, I realized that I didn't, I didn't ask
00:19:43 --> 00:19:45: you the tool question. And I remember from our prep
00:19:45 --> 00:19:48: call, some of us buy tools, some of us customized
00:19:48 --> 00:19:50: tools that we buy and some of us decide we
00:19:50 --> 00:19:53: need to build things somewhat from scratch. So I don't
00:19:53 --> 00:19:56: know as much as you could share. Could you share
00:19:56 --> 00:19:59: a little bit about the tools that you're using customizing
00:19:59 --> 00:20:01: and building over the Kansas City Fed?
00:20:02 --> 00:20:06: As it's similar to Brittany and Emily, we are looking
00:20:06 --> 00:20:09: at some of the off the shelf tools like what
00:20:09 --> 00:20:12: is provided by FEMA and Noah and you know 1st
00:20:12 --> 00:20:14: St. so those are part of the toolkit when we
00:20:15 --> 00:20:19: think about climate risk. But we're also primary researchers, so
00:20:19 --> 00:20:22: we build some of our own tools using publicly available
00:20:22 --> 00:20:26: data. Last year on some of my colleagues both within

00:20:26 --> 00:20:29: the KC Fed and also colleagues at Noah, we had
00:20:29 --> 00:20:32: a climatologist and a geographer on the on the.
00:20:32 --> 00:20:36: Project, we built a tool linking, you know, sea level
00:20:36 --> 00:20:39: rise risk to coastal real estate markets. So we brought
00:20:39 --> 00:20:43: in publicly available geospatial data from Noah and wound up
00:20:43 --> 00:20:46: the crank with, you know, some Python And other off
00:20:46 --> 00:20:50: the shelf, you know, data analytics tools. And we figured
00:20:50 --> 00:20:54: out an algorithm for identifying lease inundation elevation at the
00:20:54 --> 00:20:58: parcel level. So in our case it was residential real
00:20:58 --> 00:21:01: estate. You could apply our same toolkit to commercial real
00:21:02 --> 00:21:03: estate mortgages.
00:21:03 --> 00:21:06: Any unit of interest. So we were kind of agnostic
00:21:06 --> 00:21:10: there. We chose residential real estate because it had full
00:21:10 --> 00:21:13: coverage and then we link that into local sea level
00:21:13 --> 00:21:17: rise factors with uncertainty. So we were bringing in another
00:21:17 --> 00:21:20: element there and sort of merging sort of these publicly
00:21:20 --> 00:21:24: available data sets, sort of best in class research, best
00:21:24 --> 00:21:28: in class information from the climate side with you know,
00:21:28 --> 00:21:31: latitudes and longitudes. And we did that at the parcel
00:21:31 --> 00:21:33: level, aggregated that up to.
00:21:33 --> 00:21:36: Your zip code, you know, metro level and provided some
00:21:36 --> 00:21:40: information on when specific locations will be at risk. And
00:21:40 --> 00:21:43: then the nice thing about our research is we look
00:21:43 --> 00:21:45: at that as a public good. So we provide people
00:21:45 --> 00:21:48: a map on how they can do some of this
00:21:48 --> 00:21:51: themselves. My background prior to the KC Fed, who I
00:21:51 --> 00:21:55: worked 1/2 decade with, the National Oceanic and Atmospheric Administration,
00:21:55 --> 00:21:58: couple years of that was that one of their data
00:21:58 --> 00:22:01: centers. So it's been amazing to me to see the
00:22:01 --> 00:22:04: evolution of the tools that can help you build tools.
00:22:04 --> 00:22:06: So when I was working at the lab in Boulder,
00:22:06 --> 00:22:09: if you would have told me 10 years from now,
00:22:09 --> 00:22:12: you could take this publicly available data, you know, with
00:22:12 --> 00:22:15: relatively limited, you know, skill and backgrounds, bring a few
00:22:16 --> 00:22:18: people in the room and then put together your own
00:22:18 --> 00:22:21: data product that no one else has done. And oh,
00:22:21 --> 00:22:23: by the way, all the inputs are free outside of
00:22:23 --> 00:22:26: your own labor. I think that's kind of amazing. So
00:22:26 --> 00:22:29: it's, it's wonderful what the first streets of the world
00:22:29 --> 00:22:32: are doing or to see some of these climate data

00:22:32 --> 00:22:34: analytics shops, you know, build better widgets.
00:22:34 --> 00:22:38: That you can then link into, you know, investment decisions
00:22:38 --> 00:22:41: or, you know, specific parcels of property. But you know,
00:22:41 --> 00:22:44: a lot of the upstream version of this has evolved
00:22:44 --> 00:22:47: in such a fashion that people can kind of do
00:22:47 --> 00:22:50: this themselves and build some of their own data products
00:22:50 --> 00:22:54: which you know, frankly wasn't possible, you know, 1/2 decade
00:22:54 --> 00:22:55: or a decade ago.
00:22:57 --> 00:23:00: It is pretty amazing and hopefully the rest of the
00:23:00 --> 00:23:04: planet will catch up with these free and accessible data
00:23:04 --> 00:23:07: sets so that we can have tools like risk Factor
00:23:07 --> 00:23:10: Pro that are built globally and in near future. I'm
00:23:10 --> 00:23:13: going to use that as a transition question to all
00:23:13 --> 00:23:16: three of you. So crystal ball and also your own
00:23:16 --> 00:23:19: hopes, dreams and fears like where do you where do
00:23:19 --> 00:23:23: you see this client risk analytic market going and where
00:23:23 --> 00:23:26: does it need to go to solve the problems that
00:23:26 --> 00:23:27: you guys now are seeing?
00:23:28 --> 00:23:31: Now that you've scratched the surface of climate risk analysis,
00:23:31 --> 00:23:33: I see Emily has unmuted herself. So maybe Emily, if
00:23:33 --> 00:23:35: you want to weigh in on that first.
00:23:37 --> 00:23:40: So I think that the companies that are offering the
00:23:40 --> 00:23:43: tools and you know David was mentioning all of the
00:23:43 --> 00:23:46: free source information that's out there, they're all doing the
00:23:46 --> 00:23:48: right things. I think a lot of it has to
00:23:48 --> 00:23:51: do with the users at this point and just getting
00:23:51 --> 00:23:54: more people educated and aware of what's out there and
00:23:54 --> 00:23:57: available and actually using that to think through these problems
00:23:57 --> 00:24:00: at hand and make decisions. So that's where I think
00:24:00 --> 00:24:02: that the biggest opportunity is Max.
00:24:07 --> 00:24:10: David Brittany any thoughts on what the future should look
00:24:10 --> 00:24:11: like or will look like?
00:24:12 --> 00:24:15: I think, I think Emily is definitely on point there
00:24:15 --> 00:24:19: with the education. So the climate information, the knowledge has
00:24:19 --> 00:24:22: been out there for decades, right. If you talk to
00:24:22 --> 00:24:25: a climatologist, a lot of this is old hat. It's
00:24:25 --> 00:24:30: the field of economics, finance, investment portfolio management that's new
00:24:30 --> 00:24:33: at this game. So it's it's on those new participants

00:24:33 --> 00:24:35: who are coming to the climate.
00:24:35 --> 00:24:39: You know, to educate themselves on, you know, what are
00:24:39 --> 00:24:42: the real risks? What should I be focused on? You
00:24:42 --> 00:24:45: know, I would love to see more conversations with people
00:24:46 --> 00:24:49: in the financial sector or the real estate sector or
00:24:49 --> 00:24:52: the economics field. You know, interact with folks in the
00:24:52 --> 00:24:56: climate science or earth science fields. That's kind of some
00:24:56 --> 00:24:59: of our work. I feel like this is a team
00:24:59 --> 00:25:02: sport. It's collaborative, and there are a lot of people
00:25:02 --> 00:25:06: further along on the path than folks like myself. So
00:25:06 --> 00:25:06: I.
00:25:06 --> 00:25:09: Benefit massively from just having a conversation. I would love
00:25:09 --> 00:25:11: to see, you know, coffee with a climatologist. And if
00:25:11 --> 00:25:14: there are any climatologists on the call and you're setting
00:25:14 --> 00:25:16: that up, please send me a, you know, an e-mail
00:25:16 --> 00:25:18: or I'd love to sit on, sit in on that
00:25:18 --> 00:25:20: webinar and just absorb and learn.
00:25:21 --> 00:25:23: So that's kind of my take on it. I think
00:25:23 --> 00:25:25: it's collaborative. I think it's connecting with people who are
00:25:26 --> 00:25:28: further along on the path and sort of learning quickly
00:25:28 --> 00:25:30: so that you can better apply some of the off
00:25:30 --> 00:25:32: the shelf solutions that are being developed.
00:25:35 --> 00:25:38: Great. I think a challenge too is, you know, addressing
00:25:38 --> 00:25:41: an elephant in the room, I guess is that a
00:25:41 --> 00:25:45: lot of climate risk providers don't necessarily have the same
00:25:45 --> 00:25:48: results. And so that is a challenge that we have
00:25:49 --> 00:25:52: to deal with and really erodes trust across the board.
00:25:52 --> 00:25:56: I see it with our leadership like they're hesitant to
00:25:56 --> 00:26:01: move forward with adopting certain climate data providers because there's
00:26:01 --> 00:26:04: that question of it's a business, right? So how much
00:26:04 --> 00:26:05: of this?
00:26:05 --> 00:26:09: Is is accurate, is precise. Why does it differ across
00:26:09 --> 00:26:13: different providers that that immediately like I said that just
00:26:13 --> 00:26:16: erodes trust. So I think there and and and we
00:26:16 --> 00:26:19: know that industry is growing ESG is less of a
00:26:20 --> 00:26:22: check the box but still kind of vote as I
00:26:22 --> 00:26:27: noted all those drivers before it's growing and there's just
00:26:27 --> 00:26:31: greater demand and so I think that the technology companies
00:26:31 --> 00:26:35: that climate providers need to to be prepared and and.
00:26:35 --> 00:26:38: Evolve and adapt, uh, with with the market, right, it's

00:26:38 --> 00:26:42:	a fast-paced industry, everyone's waking up at the same time
00:26:42 --> 00:26:45:	and the tech firms have to be willing to deliver
00:26:45 --> 00:26:49:	quality data quickly and to tailor their products in the
00:26:49 --> 00:26:53:	way that the users actually need it, right? More transparency
00:26:53 --> 00:26:56:	can't be so closed off on what are the assumptions,
00:26:56 --> 00:27:00:	what are the methodologies going into this? Where are you
00:27:00 --> 00:27:03:	getting your data? We don't want your own spin on
00:27:03 --> 00:27:05:	it. We want the data and so we can make
00:27:05 --> 00:27:06:	it.
00:27:06 --> 00:27:09:	Informed decision and and so I I think providers really
00:27:09 --> 00:27:12:	need to to step up and and understand that's the
00:27:12 --> 00:27:13:	game we're playing.
00:27:15 --> 00:27:18:	If I could add something to what Brittany said really
00:27:18 --> 00:27:21:	quick, I think it's also the companies that are on
00:27:21 --> 00:27:25:	the receiving end of that data being open minded to
00:27:25 --> 00:27:29:	challenging their initial assumptions. So this is something we've been
00:27:29 --> 00:27:33:	talking about as banks, especially looking at data about where
00:27:33 --> 00:27:37:	flooding is probable. I think Chicago is probably the a
00:27:37 --> 00:27:40:	great example of that. I think most people got reaction
00:27:40 --> 00:27:44:	wouldn't be that Chicago is a really risky area, but
00:27:44 --> 00:27:45:	then if you ask yourself.
00:27:45 --> 00:27:48:	So why am I seeing this and dive in deeper,
00:27:48 --> 00:27:51:	you start to understand and So what what I've been
00:27:51 --> 00:27:54:	working on and what other banks have been working on
00:27:54 --> 00:27:57:	is how do we challenge our internal stakeholders to be
00:27:57 --> 00:28:00:	open to these new types of information and really think
00:28:00 --> 00:28:03:	about the why and challenging that conventional wisdom.
00:28:06 --> 00:28:08:	And I'll say that, you know, I'll go back to
00:28:08 --> 00:28:10:	the connecting with the experts outside of, you know, the
00:28:10 --> 00:28:12:	field of investment or banking I think that.
00:28:13 --> 00:28:16:	In my experience you know, working with folks and some
00:28:16 --> 00:28:19:	of the government agencies that deal on this on on
00:28:19 --> 00:28:22:	the day-to-day, they're, they're extraordinarily open and very helpful. If
00:28:22 --> 00:28:25:	you have some questions and you can get to the
00:28:25 --> 00:28:28:	right expert which can be a challenge admittedly. But once
00:28:28 --> 00:28:31:	you get there they're, they're really happy to have their
00:28:31 --> 00:28:33:	work count and sort of see people in the real
00:28:33 --> 00:28:36:	world making good decisions or better decisions off of the
00:28:36 --> 00:28:39:	information that they're providing. And that can be a good
00:28:39 --> 00:28:41:	counterpoint or sort of a you know.

00:28:41 --> 00:28:44: Second sort of focal point to sort of ground truth
00:28:44 --> 00:28:46: some of the information that you know there is a
00:28:46 --> 00:28:49: sort of buyer be aware that dynamic and you know
00:28:49 --> 00:28:51: some kick the tires that you have to do with
00:28:51 --> 00:28:53: some of these data products that are being.
00:28:56 --> 00:28:59: All right. So I'd like to move to some audience
00:28:59 --> 00:29:02: questions now. One of the first ones that I saw
00:29:02 --> 00:29:05: come in was what other tools are out there and
00:29:05 --> 00:29:09: how did you individually and collectively pick first St. tool
00:29:09 --> 00:29:12: for those that are working with First St. Foundation? I'd
00:29:13 --> 00:29:16: just like to start from the UI perspective. We we
00:29:16 --> 00:29:19: were approached by a member leader and 1st St. Foundation
00:29:19 --> 00:29:23: at a really exciting time in their development where they
00:29:23 --> 00:29:26: had all of the analytics built out, but they had
00:29:26 --> 00:29:26: not.
00:29:26 --> 00:29:30: Figured out how they were going to develop property level
00:29:30 --> 00:29:33: reports or some of the key components of the dashboard.
00:29:33 --> 00:29:35: So it was a chance for you alive members to
00:29:35 --> 00:29:38: actually help shape what the tool looked like and what
00:29:39 --> 00:29:42: the outputs were. And we've been hearing from our Members
00:29:42 --> 00:29:45: that one of their main concerns was that they.
00:29:45 --> 00:29:48: Did not feel that all of the reports they were
00:29:48 --> 00:29:52: getting from all other providers were giving them what they
00:29:52 --> 00:29:56: needed to engage their stakeholders and make informed decisions. So
00:29:56 --> 00:29:59: that's that's why we picked the partnership at UI. I
00:29:59 --> 00:30:01: will add that we think all of these tools are
00:30:02 --> 00:30:05: awesome and different tools will be more or less valuable
00:30:05 --> 00:30:09: for different people depending on what they're trying to understand.
00:30:09 --> 00:30:12: We're going to work to make our Members aware of
00:30:12 --> 00:30:14: all the tools that we know about. I think that
00:30:15 --> 00:30:16: our list is like.
00:30:16 --> 00:30:19: 28 and growing. Rightly so. It's there. There are a
00:30:19 --> 00:30:22: lot of tools out there, including free tools from people
00:30:22 --> 00:30:27: like Noah's digital coast, as well as more sophisticated analytics
00:30:27 --> 00:30:30: where you can work with a software provider and then
00:30:30 --> 00:30:34: bring in a sophisticated architecture and engineering firm to help
00:30:34 --> 00:30:38: you make structural decisions and retrofit decisions based on what

00:30:38 --> 00:30:40: the climate data is telling you.
00:30:41 --> 00:30:44: Anybody else want to share either some other tools that
00:30:44 --> 00:30:46: they know of in the market or a little bit
00:30:47 --> 00:30:49: on how they decided to work with risk factor Pro
00:30:49 --> 00:30:51: among their other tools, Emily?
00:30:52 --> 00:30:56: Yeah. So I think that originally the relationship with with
00:30:56 --> 00:30:59: first rate and risk factor came out of some interest
00:30:59 --> 00:31:02: from one of our board members and then some experience
00:31:02 --> 00:31:06: from like our Geospatial Sciences team and they ran a
00:31:06 --> 00:31:09: pilot using that information. And then you know the pilot
00:31:09 --> 00:31:12: was really interesting. The data was easy to work with
00:31:12 --> 00:31:15: for sure. It was easy to work with. And so
00:31:15 --> 00:31:18: we continue to expand that other data providers that I've
00:31:18 --> 00:31:22: heard of that seem really interesting and very credible I
00:31:22 --> 00:31:22: would say.
00:31:22 --> 00:31:26: Jupiter is another one very much focused on the physical
00:31:26 --> 00:31:29: space. I think would have you know very similar types
00:31:29 --> 00:31:31: of of data sets. We have a separate vendor on
00:31:32 --> 00:31:34: the transition risk side and I will I will share
00:31:34 --> 00:31:37: them just because they are about to expand I believe
00:31:37 --> 00:31:41: into CRE and transition risk which may be very interesting
00:31:41 --> 00:31:44: for those on this call and that's a company called
00:31:44 --> 00:31:46: Oak N so it sounds like you know not just
00:31:46 --> 00:31:49: as N but I think others too are also starting
00:31:49 --> 00:31:51: to build out those CRE transition tools.
00:31:54 --> 00:31:55: Great.
00:31:56 --> 00:31:59: I would add Billy there LaSalle put out a report
00:31:59 --> 00:32:03: and UL I right I believe that evaluated climate risk
00:32:03 --> 00:32:06: providers and more so how you go about evaluating climate
00:32:07 --> 00:32:10: risk providers and the questions to ask. So I would
00:32:10 --> 00:32:13: I think we could link that send it in the
00:32:13 --> 00:32:16: the Q&A or the chat and that might I think
00:32:16 --> 00:32:19: is a good a good tool to start with. There
00:32:19 --> 00:32:21: are so many out there and it you can it
00:32:21 --> 00:32:24: can feel crazy like which one do you go with
00:32:24 --> 00:32:26: we've changed ours.
00:32:26 --> 00:32:29: So I think that's also recognizing when one is just
00:32:29 --> 00:32:32: not serving they've served a need and maybe now you
00:32:32 --> 00:32:35: have a new need and so you need to evolve
00:32:35 --> 00:32:38: and and switch providers and I think that's a healthy
00:32:38 --> 00:32:42: thing to evaluate. So keeping that and and I would
00:32:42 --> 00:32:45: say that there's actually kind of two ways to to

00:32:45 --> 00:32:47: look at it. There's data and and and more of
00:32:47 --> 00:32:51: that regional sense that I think drives. I was saying
00:32:51 --> 00:32:52: this before some of those.
00:32:53 --> 00:32:56: Strategic direction that we might want to go as a
00:32:56 --> 00:32:59: regional what, what might be the risks, where do we
00:32:59 --> 00:33:02: think there are these market level shifts and how we
00:33:02 --> 00:33:05: might adjust our investment strategy at a higher level. And
00:33:06 --> 00:33:09: then there's needing to know specifically what is the building's
00:33:09 --> 00:33:12: probability of getting hit with with a hazard and to
00:33:12 --> 00:33:15: what extent is that. And so those are two different
00:33:15 --> 00:33:19: stakeholders, right. One might be the portfolio manager and the
00:33:19 --> 00:33:22: the leadership of the business, but when I'm talking to
00:33:22 --> 00:33:24: a transaction officer like.
00:33:24 --> 00:33:27: We're not going to be talking about lofty market decisions.
00:33:28 --> 00:33:30: They need to know on this deal what is the
00:33:30 --> 00:33:33: risk and how do they underwrite it. And so I
00:33:33 --> 00:33:36: that's where risk factor I think really filled a gap
00:33:36 --> 00:33:39: and a need that was so desperately needed and missing
00:33:40 --> 00:33:43: of what is that probability and what is the extent
00:33:43 --> 00:33:46: of that damage or hazard or risk. And then that
00:33:46 --> 00:33:48: is something that has a number and can bring it
00:33:49 --> 00:33:52: to a transaction officer in the way that they want
00:33:52 --> 00:33:54: to see it and can do something with that.
00:33:54 --> 00:33:58: Information. So it's also thinking, pulling it apart a little
00:33:58 --> 00:34:00: bit that there's different ways you want to use it,
00:34:00 --> 00:34:04: climate data and and different stakeholder groups to to work
00:34:04 --> 00:34:04: with.
00:34:05 --> 00:34:08: I know these are tough questions, but there are a
00:34:08 --> 00:34:13: couple rolling in for Brittany really quickly. Could you share
00:34:13 --> 00:34:16: whether your analysis is leading you to stay away from
00:34:16 --> 00:34:20: a specific asset or specific region or is it more
00:34:20 --> 00:34:21: nuanced than that?
00:34:21 --> 00:34:25: It's definitely more nuanced. We pretty much have, you know
00:34:25 --> 00:34:28: our MO is no, we're not redlining, that's not not
00:34:28 --> 00:34:33: smart business strategy, it's and again that's why risk factor
00:34:33 --> 00:34:36: has been great because if you just looked at a
00:34:36 --> 00:34:37: regional analysis.
00:34:37 --> 00:34:40: You said this area is that increasing risk of flood,
00:34:40 --> 00:34:44: great. But there are pockets within there that aren't and
00:34:44 --> 00:34:48: have inherently more resilient areas or there's things you could

00:34:48 --> 00:34:50: do and you have to look at market signals and
00:34:50 --> 00:34:53: the rental growth is there in Phoenix despite the the
00:34:53 --> 00:34:57: water stress and the heat stress and the rental growth
00:34:57 --> 00:35:00: is there in Miami despite the flood risk. So we're
00:35:00 --> 00:35:03: not necessarily going to just up and pull out, but
00:35:03 --> 00:35:06: let's think about how we can have a more resilient
00:35:06 --> 00:35:07: approach and strategy.
00:35:07 --> 00:35:10: But it is about keeping a pulse on that and
00:35:10 --> 00:35:14: thinking what could be those secondary or tertiary markets that
00:35:14 --> 00:35:16: we want to move into. And and again that's where
00:35:17 --> 00:35:20: that long term strategy comes in simultaneous to what could
00:35:20 --> 00:35:23: we do immediately with the assets that we already own
00:35:23 --> 00:35:26: or the ones that you know are are in regions
00:35:26 --> 00:35:29: that are still hot markets. So it's definitely nuanced.
00:35:30 --> 00:35:34: Thanks. There's a question about downside risks, and I think
00:35:34 --> 00:35:37: this is a good broad question for everybody. Do you
00:35:38 --> 00:35:42: feel, based on your scope of investment analysis or economic
00:35:42 --> 00:35:46: analysis, that the downside risk is quantifiable, that it's fully
00:35:46 --> 00:35:49: quantified and that it's being priced in yet or are
00:35:50 --> 00:35:54: there still some significant market failures that are holding that
00:35:54 --> 00:35:54: back?
00:35:56 --> 00:35:59: I can speak to that one, Billy, not so much
00:35:59 --> 00:36:02: on whether or not it's priced in exactly. I think
00:36:02 --> 00:36:04: that's a that's a bit of a moving target. But
00:36:04 --> 00:36:07: from the work that we did on sea level rise
00:36:07 --> 00:36:10: last year, there is asymmetry of risk when you look
00:36:10 --> 00:36:13: at the full spectrum of uncertainty, let's say within a
00:36:13 --> 00:36:16: specific climate scenario. So if you look at the sea
00:36:16 --> 00:36:19: level rise trajectories and you look at the 10 to
00:36:19 --> 00:36:23: 90th percentile within those trajectories and you do the adding
00:36:23 --> 00:36:25: up by a metro, what we found in our analysis
00:36:25 --> 00:36:26: is that.
00:36:26 --> 00:36:29: There is an asymmetry of risk to the downside and
00:36:29 --> 00:36:32: certain low lying coastal markets and then it is difficult
00:36:33 --> 00:36:36: to assess whether or not that's fully priced in because
00:36:36 --> 00:36:38: that is based off of the type of work that
00:36:38 --> 00:36:43: Brittany and Emily are doing on investor preferences. What information
00:36:43 --> 00:36:46: are they bringing on board? Is everybody bringing on board

00:36:46 --> 00:36:49: the same information and reading at the same way when
00:36:49 --> 00:36:52: they make decisions? So I think there's a lot of
00:36:52 --> 00:36:55: work yet to be done on whether or not you
00:36:55 --> 00:36:56: can say it's fully priced.
00:36:57 --> 00:37:01: But the uncertainty, I think is a big, big piece
00:37:01 --> 00:37:04: that is probably not fully understood yet and is a
00:37:04 --> 00:37:07: real challenge for kind of anyone doing sort of the
00:37:08 --> 00:37:11: more difficult work on climate analytics and climate risk.
00:37:16 --> 00:37:18: So what do you think, Brittany, Emily, from where you
00:37:18 --> 00:37:21: sit, how how is it going in terms of being
00:37:21 --> 00:37:23: able to quantify these these risks at this point?
00:37:26 --> 00:37:29: Yeah, I would I would echo what what David saying
00:37:29 --> 00:37:32: about the quantification piece and again this is something we
00:37:32 --> 00:37:36: were talking about as as banks you know most immediately
00:37:36 --> 00:37:39: we're focused on that direct damage to physical assets or
00:37:39 --> 00:37:42: damage to our clients that would result in potential credit
00:37:42 --> 00:37:46: losses and things like that. It it's especially difficult and
00:37:46 --> 00:37:49: really compounds the problem when you start to add in
00:37:49 --> 00:37:52: those economic factors you know we know that they exist
00:37:52 --> 00:37:56: but incorporating them is is really difficult at this point.
00:37:56 --> 00:37:56: So I don't.
00:37:56 --> 00:37:58: I don't think it's there yet.
00:37:59 --> 00:38:02: Yeah. And for us, it's still very much is a
00:38:02 --> 00:38:05: downside as opposed to base case. I think that's actually
00:38:05 --> 00:38:08: something that we want to shift shift especially where we
00:38:09 --> 00:38:12: are getting those probabilities. If something has a 90% chance
00:38:12 --> 00:38:15: of occurring, it really ought to be the base case,
00:38:15 --> 00:38:19: not a downside scenario. So we're working with our research
00:38:19 --> 00:38:22: team to think about how do we adjust our underwriting,
00:38:22 --> 00:38:26: our standard underwriting assumptions to actually say, well, which threshold
00:38:26 --> 00:38:29: should actually just be a base case, but for now,
00:38:29 --> 00:38:30: right now.
00:38:30 --> 00:38:34: Most of it is just running that downside. Assume increases
00:38:34 --> 00:38:38: in insurance, assume that an expanded cap rate, assume you
00:38:38 --> 00:38:41: know and what would that do to the financials so
00:38:41 --> 00:38:45: that the the portfolio manager has a full picture. I
00:38:45 --> 00:38:48: think how the markets pricing it in. I addressed a
00:38:48 --> 00:38:51: lot before that people are still living there. I mean
00:38:52 --> 00:38:54: it's kind of our own fault if if we still
00:38:54 --> 00:38:58: want to move there then that's where business is going

00:38:58 --> 00:39:00: to go but and it does certainly.
00:39:00 --> 00:39:03: Harry and but the scary part is not knowing when
00:39:03 --> 00:39:06: that market could flip and it could take a very
00:39:06 --> 00:39:09: aggressive flip and you'd want to be on the winning
00:39:09 --> 00:39:11: side of that equation and who has a crystal ball
00:39:12 --> 00:39:14: for that. So trying to figure out what are those
00:39:14 --> 00:39:17: market signals. If you look at risks, risk factors data
00:39:18 --> 00:39:20: is now in Redfin and realtor.com. So now you can
00:39:20 --> 00:39:23: say OK the the layman person is now understanding their
00:39:24 --> 00:39:26: risk to their homes. Maybe that is going to start
00:39:26 --> 00:39:29: shifting people to say wait I don't want to live
00:39:29 --> 00:39:31: in a home that has a risk factor.
00:39:31 --> 00:39:34: For a flood factor score of seven and there are
00:39:34 --> 00:39:37: communities that towns are buying them out because there's just
00:39:37 --> 00:39:40: too much risk and it doesn't make sense to ensure
00:39:40 --> 00:39:43: them anymore. So I know there's some in Long Island,
00:39:43 --> 00:39:45: there's you know a few of them around the US
00:39:46 --> 00:39:49: that towns are actually local governments have to say we'll
00:39:49 --> 00:39:51: buy you out of this town and and otherwise I
00:39:51 --> 00:39:54: mean if you stay you pretty much accept obsolescence or
00:39:54 --> 00:39:57: a complete value loss of of your property. So it
00:39:57 --> 00:39:59: is changing in some places.
00:39:59 --> 00:40:03: Yeah. The realtor.com example is, is actually a great example
00:40:03 --> 00:40:06: for this question that just came in. You know, with
00:40:06 --> 00:40:09: realtor.org, all the data is there and it's in a
00:40:09 --> 00:40:13: very understandable way. But the question is whether the realtor
00:40:13 --> 00:40:17: is actually educating people on how to make decisions based
00:40:17 --> 00:40:20: on that data. There's a question, it's probably mainly for
00:40:20 --> 00:40:24: Emily and Brittany, but you do this climate risk analysis
00:40:24 --> 00:40:27: and then you have to give your investment team some
00:40:27 --> 00:40:29: guidance. Are you just giving them the data?
00:40:30 --> 00:40:32: Are you telling them what you think they should do,
00:40:32 --> 00:40:35: or are you helping them figure out how to price
00:40:35 --> 00:40:37: it? How does that? How does that interaction work between
00:40:37 --> 00:40:41: the climate risk analysis and the investment decisions based on
00:40:41 --> 00:40:41: it?
00:40:42 --> 00:40:45: Yeah, we we make it a collaborative effort. I mean
00:40:45 --> 00:40:47: if we just came forward and said do this, it
00:40:47 --> 00:40:51: would be immediately shut down. And quite honestly that's

why
00:40:51 --> 00:40:54: the whole concept of delivering a simple value at risk
00:40:54 --> 00:40:57: metric doesn't really work for a lot of investment firms
00:40:57 --> 00:41:00: because everybody wants to know well what are you assuming
00:41:00 --> 00:41:04: behind that and we may disagree with those assumptions. So
00:41:04 --> 00:41:06: it but it also is not just giving the data,
00:41:06 --> 00:41:09: it's working together to figure out what kind of guidance
00:41:09 --> 00:41:12: makes sense. So we are saying those types of things.
00:41:12 --> 00:41:16: You mentioned before that, OK, if you exceed this threshold,
00:41:16 --> 00:41:20: here's the data. If you exceed this threshold that we
00:41:20 --> 00:41:24: said internally, then you need to assume the insurance double
00:41:24 --> 00:41:27: s over the whole period or assume A2 per 200%
00:41:27 --> 00:41:30: increase in water costs because of the the water stress
00:41:30 --> 00:41:33: for that region. So we do work together to actually
00:41:33 --> 00:41:37: give informed recommendations on what to do, but there is
00:41:37 --> 00:41:41: autonomy for the investment teams to to ultimately make the
00:41:41 --> 00:41:42: call themselves of.
00:41:42 --> 00:41:45: How severe they want to tweak the financials or if
00:41:45 --> 00:41:47: they don't believe in the risk and and not tweak
00:41:47 --> 00:41:49: it, that's really their call.
00:41:52 --> 00:41:55: For us, we've been really focused on consumer mortgage. You
00:41:55 --> 00:41:58: know, before diving into commercial real estate or any of
00:41:58 --> 00:42:02: our own properties or third parties, our mortgage business, they're
00:42:02 --> 00:42:06: aware of climate risk. They were already having some conversations
00:42:06 --> 00:42:09: with some of their other third parties. Our risk management
00:42:09 --> 00:42:12: team is really the one that that sat down with
00:42:12 --> 00:42:16: our Geospatial Sciences team and analyzed the first straight data.
00:42:16 --> 00:42:19: Where we are right now is identification of the risk.
00:42:19 --> 00:42:22: And so I mentioned Chicago earlier and there's a couple
00:42:22 --> 00:42:23: other areas like that.
00:42:23 --> 00:42:26: Where the risk is different than what you may conventionally
00:42:26 --> 00:42:30: think of, especially if you're looking at FEMA maps and
00:42:30 --> 00:42:32: things like that. So our stuff was to provide that
00:42:32 --> 00:42:36: information to our mortgage business. The trick with the consumer
00:42:36 --> 00:42:39: side and I'm sure some of you on the call
00:42:39 --> 00:42:41: work with consumer, you have to be very careful not
00:42:42 --> 00:42:45: to adversely impact that customer, you know, just because

that's
00:42:45 --> 00:42:48: the right thing to do. But also from a compliance
00:42:48 --> 00:42:51: perspective, there are a lot of a lot of regulations
00:42:51 --> 00:42:53: and things in that space and so.
00:42:53 --> 00:42:56: There's not a change to lending decisions and processes and
00:42:56 --> 00:43:00: practices at this point. It's more about that understanding. I
00:43:00 --> 00:43:03: think from a banking industry, the things that we think
00:43:03 --> 00:43:06: are key are the education like that linking in Redfin.
00:43:07 --> 00:43:10: There is research that indicates that that leads to.
00:43:10 --> 00:43:14: Customers more likely buying voluntary insurance if they're not in
00:43:14 --> 00:43:17: a flood zone and then you know just continuing to
00:43:17 --> 00:43:20: to educate I think is really that that important piece
00:43:20 --> 00:43:23: where we think that the changes are probably most immediately
00:43:23 --> 00:43:26: going to happen for us. It's probably going to be
00:43:26 --> 00:43:29: more so in management of our own real estate. But
00:43:29 --> 00:43:32: again it's probably going to be more about the you
00:43:32 --> 00:43:34: know due by this building or do we buy the
00:43:34 --> 00:43:37: one next door. What types of controls do we put
00:43:37 --> 00:43:40: in place, are there physical mitigants that we put in
00:43:40 --> 00:43:40: place to.
00:43:40 --> 00:43:43: Better control. The risk of that building is probably where
00:43:43 --> 00:43:44: it's going to start for us.
00:43:47 --> 00:43:48: So shifting gears a little bit.
00:43:50 --> 00:43:53: David, all of us work directly in the real estate
00:43:53 --> 00:43:57: industry all the time. You're looking across dozens of different
00:43:57 --> 00:44:00: industries. There was a question about who might be missing
00:44:00 --> 00:44:03: from the conversation that we'd like to see. In that
00:44:03 --> 00:44:08: conversation, the suggestion was maybe medical or homeowner insurance entities
00:44:08 --> 00:44:10: are. Are there folks that you see in this sort
00:44:10 --> 00:44:14: of real estate and real estate adjacent ecosystem that should
00:44:14 --> 00:44:17: be part of this conversation on climate risk analysis?
00:44:18 --> 00:44:20: Yeah, I mean I think Brittany and Emily touched on
00:44:20 --> 00:44:23: it. Uh, the link between a long lived asset called
00:44:23 --> 00:44:25: a mortgage and a building and sort of the insurance
00:44:25 --> 00:44:28: industry, I think that's kind of where the rubber hits
00:44:28 --> 00:44:28: the road it's.
00:44:29 --> 00:44:31: It's great for me to hear that some of those
00:44:31 --> 00:44:34: adjustments are already taking place or some of those decisions

00:44:34 --> 00:44:37: are already sort of happening on the investment side. For
00:44:37 --> 00:44:39: me, when I think about this from sort of a
00:44:39 --> 00:44:43: meta perspective, the fact that you're having those conversations, people
00:44:43 --> 00:44:46: are taking that information on board and then making decisions
00:44:46 --> 00:44:49: about it actually creates a less risky world potentially in
00:44:49 --> 00:44:49: the future.
00:44:50 --> 00:44:53: Um, so certainly insurance, we think about climate risk more
00:44:54 --> 00:44:58: broadly. So I've already mentioned the agricultural sector in drought
00:44:58 --> 00:45:01: at the KC Fed, we focus on the energy sector.
00:45:01 --> 00:45:04: So a lot of transitional risk and opportunity there, so.
00:45:05 --> 00:45:08: I guess, yeah, in the commercial real estate, real estate
00:45:08 --> 00:45:11: space, certainly the insurance side of the House, but at
00:45:11 --> 00:45:14: least from our perspective it's sort of broad spectrum climate,
00:45:14 --> 00:45:17: risk, broader economy both regionally as well as nationally.
00:45:18 --> 00:45:22: Thanks. There's a question about tools for a global portfolio
00:45:22 --> 00:45:26: and we, you know 1st St. Foundation data is really
00:45:26 --> 00:45:29: focused on the United States of America. I know of
00:45:29 --> 00:45:33: two tools that people can use for a global portfolio.
00:45:33 --> 00:45:37: One is called climate central and it's a somewhat blunt
00:45:37 --> 00:45:41: instrument, but it's datasets that are global, including a pretty
00:45:41 --> 00:45:45: comprehensive sea level rise tool. The only other tool I
00:45:45 --> 00:45:48: know is a giant pile of IPCC science data that
00:45:48 --> 00:45:49: someone would have to.
00:45:50 --> 00:45:52: Like, no. And FEMA figure out how to organize in
00:45:52 --> 00:45:55: a way to easily build tools off of. But I
00:45:55 --> 00:45:58: I'd love to hear from the panel if you've come
00:45:58 --> 00:46:00: across or seen any other tools, or have an idea
00:46:00 --> 00:46:03: on how those tools could get built to be truly
00:46:03 --> 00:46:04: global.
00:46:05 --> 00:46:08: Just pass it back. Given the sort of pretty heavy
00:46:08 --> 00:46:10: data work we've had to do in a few of
00:46:10 --> 00:46:12: our projects, the reality is the climate data and sort
00:46:13 --> 00:46:15: of the underlying risk data that you're going to use
00:46:15 --> 00:46:18: for this type of thing, the fidelity of that information
00:46:18 --> 00:46:21: is really good in the United States and North America
00:46:21 --> 00:46:24: and also in Europe. It gets a little bit questionable
00:46:24 --> 00:46:27: in terms of granularity and sort of the grid spacing
00:46:27 --> 00:46:30: in these types of things. You know, the individual, the
00:46:30 --> 00:46:32: actual underlying data sets that you'd use to run that
00:46:32 --> 00:46:35: analysis. So that conversation we had about buyer beware.

00:46:35 --> 00:46:39: And sort of what somebody might be selling you, they
00:46:39 --> 00:46:42: might be telling you that they have, you know, high
00:46:42 --> 00:46:45: fidelity data out of a very local level. But I'd
00:46:45 --> 00:46:48: question the sort of underlying data that they're using to
00:46:48 --> 00:46:52: get to that individual latitude and longitude on type of
00:46:52 --> 00:46:55: exposure. So I think I think you're right on point,
00:46:55 --> 00:46:58: Billy there, there are far fewer tools you know, X
00:46:58 --> 00:47:00: US than there are in the US and I think
00:47:00 --> 00:47:03: that has to do with you know how much, how
00:47:03 --> 00:47:05: much resources the US spends on you know.
00:47:05 --> 00:47:08: Satellites and geospatial data and the Earth science field to
00:47:08 --> 00:47:10: sort of feed the beast doesn't work.
00:47:13 --> 00:47:16: So there's a question about building this tool in Europe.
00:47:16 --> 00:47:19: This, this may sound like a flippant answer, but one
00:47:20 --> 00:47:23: of the things that I've seen is the insurance industry
00:47:23 --> 00:47:27: and the reinsurance industry has some phenomenal datasets that are
00:47:27 --> 00:47:30: global but especially strong in the US and Europe. So,
00:47:30 --> 00:47:34: but they're private, right, they're private and proprietary. Can you
00:47:34 --> 00:47:37: think of, I mean from a regional perspective, are there
00:47:37 --> 00:47:40: tools that are there data sets that you could use
00:47:40 --> 00:47:43: in Europe or Asia that might help answer these questions?
00:47:49 --> 00:47:51: We're not we may not solve this on this call.
00:47:52 --> 00:47:56: Throughout Brittany, like when you're looking at your global portfolio,
00:47:56 --> 00:47:59: like what other tools are you using in other regions
00:47:59 --> 00:48:01: or are you really waiting for the tools to be
00:48:02 --> 00:48:04: offered and become more sophisticated?
00:48:05 --> 00:48:09: So I do focus on our America's portfolio. So keep
00:48:09 --> 00:48:10: that in mind.
00:48:11 --> 00:48:15: We that's where the I don't know if you're trying
00:48:15 --> 00:48:18: to say only public because yes we do purchase that's
00:48:18 --> 00:48:22: where those global climate risk providers come in handy to
00:48:22 --> 00:48:26: get those that that whole comprehensive view. So Munich Ray
00:48:26 --> 00:48:29: is 1 which is is the reinsurers climate platform.
00:48:31 --> 00:48:36: Maplecroft Verisk Maplecroft has a global climate.
00:48:37 --> 00:48:39: Data set and so we were like again it, it
00:48:39 --> 00:48:42: is about like hodgepodge a bunch of these. I'm not
00:48:42 --> 00:48:45: sure if my counterpart on the European and Asia Pacific
00:48:45 --> 00:48:48: portfolio have anything more granular that they also leverage, but

00:48:49 --> 00:48:51: that is a good question. I'd like to ask him
00:48:51 --> 00:48:54: that. So yeah that's that's that's what I could share.
00:48:55 --> 00:48:57: Great. And I had a couple audience Members point to
00:48:57 --> 00:49:00: a couple as well. Roberto, this is the one time
00:49:00 --> 00:49:02: I'll ask you to move something from the Q&A into
00:49:02 --> 00:49:05: the chat. So if you do have suggestions for other
00:49:05 --> 00:49:08: people, it's called climate X and I've never heard of
00:49:08 --> 00:49:10: it, but we'll add it to our list and and
00:49:10 --> 00:49:12: learn more about it here at UCLA as well.
00:49:13 --> 00:49:17: Um, there's a question about time horizons and how your
00:49:17 --> 00:49:20: analysis changes. If you're looking at, you know one a
00:49:20 --> 00:49:24: one year hold or securitizing mortgages versus holding a mortgage
00:49:24 --> 00:49:27: for 30 years, how do you guys use this risk
00:49:27 --> 00:49:31: analysis based on different time horizons and how important is
00:49:31 --> 00:49:34: this risk analysis based on the time horizon for you?
00:49:37 --> 00:49:40: Umm, so I could jump in quickly. Our generally we
00:49:40 --> 00:49:43: like to think not just about our whole period, but
00:49:43 --> 00:49:46: the the buyers hold. Because the thinking is that they're
00:49:46 --> 00:49:49: also doing the very same thing we're doing is trying
00:49:49 --> 00:49:52: to get a handle on climate risk and integrate it
00:49:52 --> 00:49:55: in their investment decisions. And so they're going to have
00:49:55 --> 00:49:58: access to the same data. So if we think a
00:49:58 --> 00:50:01: property doesn't have significant risk until 10 years from now,
00:50:01 --> 00:50:04: but that means that's going to be right away for
00:50:04 --> 00:50:07: the buyer and they're not going to be maybe as
00:50:07 --> 00:50:07: interested.
00:50:08 --> 00:50:10: So we try to look at that 20 year time
00:50:10 --> 00:50:13: horizon to say, OK, if the risk is significant within
00:50:13 --> 00:50:16: that time frame, that's something to account for. But again
00:50:16 --> 00:50:20: this is where it ultimately portfolio managers have the investment
00:50:20 --> 00:50:24: decision making accountability and responsibility. So we present with what
00:50:24 --> 00:50:27: that risk could be and then it's up to them
00:50:27 --> 00:50:30: and the investment teams to say, well given that this
00:50:30 --> 00:50:32: might be a 5 year hold, we might be more
00:50:32 --> 00:50:35: comfortable with that risk. If it's a 10 or longer
00:50:35 --> 00:50:38: into your hold then they might be less.
00:50:38 --> 00:50:40: Comfortable with that risk. So it it's taking into account
00:50:40 --> 00:50:43: what the investment strategy is for that asset as well.
00:50:48 --> 00:50:50: For us, when we looked especially at the 1st St.

00:50:50 --> 00:50:53: Data, I think that the most jarring thing was the
00:50:53 --> 00:50:56: difference even as we sit today between traditional methods of
00:50:56 --> 00:51:00: determining that physical risk, specifically flood and they are, you
00:51:00 --> 00:51:03: know, more advanced methods. When we looked 30 years out,
00:51:03 --> 00:51:06: there was, you know, still incremental difference, but it was
00:51:06 --> 00:51:09: much smaller. And so really for us, yes, we're looking
00:51:09 --> 00:51:12: at multiple time horizons, but the one that we're most
00:51:12 --> 00:51:15: focused on is current state because of that drastic difference.
00:51:19 --> 00:51:21: Well, so as as all of you are trying to
00:51:21 --> 00:51:24: triangulate this risk and come up with a number, what's
00:51:24 --> 00:51:27: the role that you place of the emphasis you place
00:51:27 --> 00:51:31: on what governments, state and local governments are doing or
00:51:31 --> 00:51:34: could do or have promised to do within a certain
00:51:34 --> 00:51:37: time frame to mitigate that risk? How does that, how
00:51:37 --> 00:51:39: does that enter into the analysis?
00:51:42 --> 00:51:45: So we it does come into play this it's difficult
00:51:45 --> 00:51:48: to to to make any sort of decision on where
00:51:48 --> 00:51:51: we think a municipality is headed and putting a number
00:51:52 --> 00:51:54: on that is even harder. We this is kind of
00:51:54 --> 00:51:57: goes back to what I was saying that there's climate
00:51:58 --> 00:52:02: providers serve different needs and there's like that market view
00:52:02 --> 00:52:05: way to think about it. So shifting to more of
00:52:05 --> 00:52:08: that like what is our strategic direction, where do we
00:52:08 --> 00:52:11: want to be thinking about these things and we have
00:52:11 --> 00:52:12: used the climate.
00:52:12 --> 00:52:16: Service, they've helped us develop market views and that's looking
00:52:17 --> 00:52:20: at the policies and the the budget of these different,
00:52:20 --> 00:52:24: not necessarily the budget itself, but like budget plans and
00:52:24 --> 00:52:29: commitments of different municipalities and where they're spending their dollars
00:52:29 --> 00:52:32: on resilience projects. To help us understand, OK, this, you
00:52:32 --> 00:52:36: know Boston might have significant risks, but we know that
00:52:36 --> 00:52:40: they're investing heavily in resilience, but actually coming out with
00:52:40 --> 00:52:42: like OK, so is that a yes or no?
00:52:43 --> 00:52:46: That's the hard part and that's why it's more of.
00:52:48 --> 00:52:52: Brainstorm thought leadership as opposed to like per investment. What's

00:52:52 --> 00:52:55: the decision? But it definitely comes into play and and
00:52:55 --> 00:52:57: I I hope that we can.
00:52:57 --> 00:53:01: Deliver or build something a little bit more systematic in
00:53:01 --> 00:53:04: taking in that information, but right now it seems very
00:53:04 --> 00:53:07: much like a OK point point taken, but I'm not
00:53:07 --> 00:53:09: sure what to do with that next.
00:53:11 --> 00:53:14: I'll put in a plug and I'll try and get
00:53:14 --> 00:53:16: it into the chat before we leave for an ancient
00:53:16 --> 00:53:20: at this point I think it's 2015 report by grovenor.
00:53:20 --> 00:53:23: Grovenor tried to look at 100 of the largest cities
00:53:23 --> 00:53:26: and their physical risk as well as their adaptive capacity,
00:53:26 --> 00:53:29: which I thought was a really interesting term to use.
00:53:30 --> 00:53:33: It was a combination of the political will, the financial
00:53:33 --> 00:53:37: resources and the progress necessary to mitigate that risk. I
00:53:37 --> 00:53:40: think that would be a really interesting thing to try
00:53:40 --> 00:53:41: and refresh and for our.
00:53:41 --> 00:53:44: Climate providers to try and figure out how we can
00:53:44 --> 00:53:48: better quantify that and way it against physical and transition
00:53:48 --> 00:53:52: risk in these investment decisions. Or maybe David can do
00:53:52 --> 00:53:54: this for us with his expansive datasets.
00:53:55 --> 00:53:58: The OR infinite resources of course I just that's all
00:53:58 --> 00:54:02: the researchers and the Federal Reserve System but it's actually
00:54:02 --> 00:54:04: a really good question for the the Fed similar on
00:54:04 --> 00:54:08: the policy side when governments make decisions we kind of
00:54:08 --> 00:54:11: have to assess the economic and regional impacts. We see
00:54:11 --> 00:54:14: that you know both within sort of municipal and state
00:54:14 --> 00:54:17: level but you know also some of the national policy
00:54:17 --> 00:54:20: decisions but you know we we we respond to that
00:54:20 --> 00:54:23: analyze and understand the economic implications but we're not we're
00:54:23 --> 00:54:25: not the deciders on those.
00:54:25 --> 00:54:25: Thanks.
00:54:27 --> 00:54:29: There's a good question in the chat and maybe an
00:54:29 --> 00:54:32: unanswerable question, and it is a question you and I
00:54:32 --> 00:54:35: tried to answer with a research report three years ago,
00:54:35 --> 00:54:37: and we didn't come to a conclusion on this, but
00:54:37 --> 00:54:41: has the Federal Reserve seen changes in investment capital flows
00:54:41 --> 00:54:44: into certain regions due to climate risks? Is there a
00:54:44 --> 00:54:46: way to parse any of that or are you seeing
00:54:46 --> 00:54:47: the opposite?
00:54:49 --> 00:54:49: Or hard to.

00:54:49 --> 00:54:52: Tell yeah, probably. This probably isn't going to be a
00:54:52 --> 00:54:55: satisfying answer for the audience here because you're in the
00:54:55 --> 00:54:59: commercial real estate space. I'm going to sort of ducktail
00:54:59 --> 00:55:01: back into the sort of energy space. You see it
00:55:01 --> 00:55:04: on the transitional side. You see sort of the closure
00:55:04 --> 00:55:07: of coal mines in the western United States and the
00:55:07 --> 00:55:09: rise of wind farms in sort of Kansas and Oklahoma
00:55:09 --> 00:55:12: and these types of things. So you do see compositional
00:55:12 --> 00:55:16: changes in where infrastructure is being built or where you're
00:55:16 --> 00:55:19: allowing infrastructure to sort of reach its useful life.
00:55:19 --> 00:55:22: And then sort of get retired. So that's kind of
00:55:22 --> 00:55:25: what we see from our perspective. Again, probably not a
00:55:25 --> 00:55:28: satisfying answer for all the real estate investors on the
00:55:28 --> 00:55:28: call.
00:55:30 --> 00:55:33: Brittany, you talked to big investors. I don't know if
00:55:33 --> 00:55:36: you can anonymize it, but are you seeing it either
00:55:36 --> 00:55:39: in the institutional investment community or in other parts of
00:55:40 --> 00:55:44: the investment landscape, anything, any changes in capital flows related
00:55:44 --> 00:55:47: to climate risk and resilience without naming any specific regions
00:55:47 --> 00:55:49: or any specific investors?
00:55:50 --> 00:55:55: So it's definitely increased. In terms of the asking, they
00:55:55 --> 00:55:58: want to know like as I was saying before, what
00:55:59 --> 00:56:00: is the portfolio?
00:56:00 --> 00:56:03: Exposure to all hazards by percent of AUM. What is
00:56:03 --> 00:56:08: being done about that? Gives specific examples of how climate
00:56:08 --> 00:56:12: risk was factored into decision making. You purchase any assets
00:56:12 --> 00:56:15: at risk of those at risk, why did what? What
00:56:15 --> 00:56:19: made you comfortable with it? So they're really digging in
00:56:19 --> 00:56:23: to hear the thinking behind making those investment decisions.
00:56:24 --> 00:56:28: So that does, I don't you know and what they
00:56:28 --> 00:56:30: do with that is we teach TBD I guess you
00:56:31 --> 00:56:34: know there hasn't yet been any any sort of we
00:56:34 --> 00:56:37: don't want you investing at all in X area. It's
00:56:37 --> 00:56:41: more so asking the questions but maybe it's a safe
00:56:41 --> 00:56:45: assumption that what happens next is they do maybe place
00:56:45 --> 00:56:49: some restrictions on on certain areas or do set portfolio
00:56:49 --> 00:56:53: limits of we only want 10% of your portfolio exposed
00:56:53 --> 00:56:55: to extreme hazards.

00:56:55 --> 00:56:58: I think that that would be reasonable to say that
00:56:58 --> 00:57:01: that probably comes into play, especially as the reality of
00:57:01 --> 00:57:05: climate change continues and we continue to face disasters that
00:57:05 --> 00:57:08: cost money. I think that it's very reasonable that they
00:57:08 --> 00:57:10: will eventually set those limitations.
00:57:11 --> 00:57:14: This has been a a whirlwind tour and I think
00:57:14 --> 00:57:16: that we may have today set a record for the
00:57:16 --> 00:57:20: total number of audience questions answered. We've answered 17 audience
00:57:20 --> 00:57:24: questions. So congratulations audience for asking really good questions that
00:57:24 --> 00:57:28: we could answer succinctly and congratulations to the panelists for
00:57:28 --> 00:57:31: your flexibility to answer all of these questions that we
00:57:31 --> 00:57:34: did not prepare for. I would like to ask one
00:57:34 --> 00:57:37: final question that we semi prepared for. Could each of
00:57:37 --> 00:57:40: you share something? We have a lot of people that
00:57:40 --> 00:57:42: are just getting started with climate.
00:57:42 --> 00:57:44: Risk based on your journey or do you have advice
00:57:44 --> 00:57:48: for somebody looking to tackle climate risk for the first
00:57:48 --> 00:57:48: time?
00:57:50 --> 00:57:53: I would say connect, collaborate, you know, access those folks
00:57:53 --> 00:57:55: who are further along on the path. I feel like
00:57:55 --> 00:57:58: this is climate analytics is kind of its infancy. It's
00:57:58 --> 00:58:00: a little bit of a Wild West, but there are
00:58:00 --> 00:58:02: people. So there's part of that is there's no old
00:58:02 --> 00:58:04: man in the room who's going to be able to
00:58:05 --> 00:58:07: tell you the answer. And I think we've highlighted that
00:58:07 --> 00:58:10: on the call. But that being said, there are people
00:58:10 --> 00:58:12: who have, you know, they've got the scars and sort
00:58:12 --> 00:58:15: of been roughed up by trying to do this work
00:58:15 --> 00:58:17: well and you know, have those conversations because I think
00:58:18 --> 00:58:19: people are still willing to have.
00:58:19 --> 00:58:22: Those discussions and help you out on sort of doing
00:58:22 --> 00:58:22: that work well.
00:58:23 --> 00:58:24: Thanks.
00:58:26 --> 00:58:28: Backing off of what David said, say plan for not
00:58:28 --> 00:58:32: getting it right or complete the first time, potentially maybe
00:58:32 --> 00:58:35: ever. You know, there will be a lot of iterations
00:58:35 --> 00:58:38: after you do that first analysis, I think you'll probably
00:58:38 --> 00:58:41: come out on the other side with more questions than

00:58:41 --> 00:58:42: answers.
00:58:45 --> 00:58:47: Honestly, I think David and Emily hit hit the nail
00:58:47 --> 00:58:49: on the head, so nothing to add there.
00:58:50 --> 00:58:53: Well, on behalf of you a lot, I'd really like
00:58:53 --> 00:58:56: to thank our panelists for a great discussion today. We're
00:58:56 --> 00:58:59: going to send a recording of this session, so if
00:58:59 --> 00:59:02: you want to share it with your friends, that would
00:59:02 --> 00:59:04: be great. And we'll also do our best to capture
00:59:04 --> 00:59:07: as many of the links referenced in this discussion as
00:59:07 --> 00:59:10: we can. In that follow up, I'd like to remind
00:59:10 --> 00:59:13: people that if you want to continue this conversation with
00:59:13 --> 00:59:16: you alike, come to the resilient Summit May 15 in
00:59:16 --> 00:59:19: Toronto ON Canada and please, if you're a UI member,
00:59:19 --> 00:59:20: take advantage of this.
00:59:20 --> 00:59:24: Risk Factor pro tool download 5 property assessments and then
00:59:24 --> 00:59:26: reach back out to you, Ali, to let us know
00:59:26 --> 00:59:29: what you think so that we can continue to offer
00:59:29 --> 00:59:32: this and other tools to our membership in the broader
00:59:32 --> 00:59:35: real estate industry. So thanks again everybody. Have a great
00:59:35 --> 00:59:37: rest of your day and have a great weekend. Bye,
00:59:37 --> 00:59:38: bye.
00:59:39 --> 00:59:40: Thanks so much.
00:59:41 --> 00:59:42: Thank you.
