

## Webinar

## Change is Coming: Climate Risk Disclosures and Real Estate Investment

(US/APAC)

Date: October 13, 2023

| 00:00:00> 00:00:01: | Hi, everybody.   |
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| 00:00:01> 00:00:04: | Welcome to our ULI webinar today.                                      |
| 00:00:04> 00:00:08: | Change is coming, climate risk disclosures and real estate investment. |
| 00:00:08> 00:00:12: | I'm Billy Grayson, your faithful moderator.                            |
| 00:00:12> 00:00:14: | Today, we're just going to wait a minute or two                        |
| 00:00:14> 00:00:17: | until everybody can get into the webinar, and then we'll               |
| 00:00:17> 00:00:18: | get started in a minute.   |
| 00:00:43> 00:00:46: | Hello, and welcome to those of you that are rolling                    |
| 00:00:46> 00:00:48: | into the webinar right now.  |
| 00:00:48> 00:00:50: | I'm Billy Grayson, your moderator.                                     |
| 00:00:50> 00:00:51: | This is the ULI webinar.   |
| 00:00:51> 00:00:52: | Change is coming.  |
| 00:00:53> 00:00:55: | Climate risk disclosure and real estate investment.                    |
| 00:00:56> 00:00:59: | We're going to wait just one more minute for people                    |
| 00:00:59> 00:01:01: | to roll into the webinar, and then we'll get started.                  |
| 00:01:21> 00:01:22: | All right, One more time with feeling.                                 |
| 00:01:23> 00:01:24: | Hello, everyone.   |
| 00:01:24> 00:01:27: | Welcome to our Urban Land Institute webinar today.                     |
| 00:01:27> 00:01:29: | I'm Billy Grayson, your moderator.                                     |
| 00:01:30> 00:01:34: | This is utilize webinar changes coming climate risk disclosure and     |
| 00:01:34> 00:01:35: | real estate investment.  |
| 00:01:36> 00:01:38: | Very excited about our webinar today.                                  |
| 00:01:38> 00:01:42: | Joining me to talk about climate risk and real estate                  |
| 00:01:42> 00:01:46: | investment is Laura Kraft, the Global Head of Portfolio<br>Strategies  |
| 00:01:46> 00:01:47: | at Heitman.  |
| 00:01:49> 00:01:52: | Annika Shaw, the Managing Director and Global Head of                  |

|                     | ESG  |
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| 00:01:52> 00:01:55: | and Sustainable Finance Strategy for Jeffries.                     |
| 00:01:55> 00:01:59: | I'm Billy Grayson, Chief Initiatives Officer at the Urban Land     |
| 00:01:59> 00:01:59: | Institute.   |
| 00:02:01> 00:02:05: | We're very excited to be releasing report #4 in our                |
| 00:02:05> 00:02:09: | collaboration between ULI and Heitmann on climate risk and         |
|                     | real   |
| 00:02:09> 00:02:10: | estate investment.   |
| 00:02:11> 00:02:15: | We began this collaboration way back in 2019, which at             |
| 00:02:15> 00:02:19: | the time we were just starting to catalyze a discussion            |
| 00:02:19> 00:02:23: | on how climate risk and real estate investment worked and          |
| 00:02:23> 00:02:28: | what investment managers could do to better assess and price       |
| 00:02:28> 00:02:31: | and mitigate this risk in their portfolios.                        |
| 00:02:32> 00:02:35: | Our second report with Heitmann looked at market level risk        |
| 00:02:35> 00:02:38: | and how a city's climate risk and resilience strategy can          |
| 00:02:38> 00:02:41: | impact outcomes for all assets within a region.                    |
| 00:02:42> 00:02:45: | Our third report looked at the emerging trend of climate           |
| 00:02:45> 00:02:48: | driven global migration and explored how investors in the public   |
| 00:02:48> 00:02:52: | sector can better prepare for and adapt to these changing          |
| 00:02:52> 00:02:53: | demographic patterns.  |
| 00:02:54> 00:02:57: | Our newest report in the series looks at the acceleration          |
| 00:02:57> 00:03:00: | of climate and ESG related regulation and the impact that          |
| 00:03:00> 00:03:03: | these new regulations will have on transition risk, a growing      |
| 00:03:03> 00:03:06: | component of the overall risk picture for climate risk in          |
| 00:03:06> 00:03:08: | real estate investment.  |
| 00:03:09> 00:03:09: | Next slide.  |
| 00:03:12> 00:03:15: | So we titled our report Changes Coming, but a more                 |
| 00:03:15> 00:03:19: | appropriate title might be Changes Already Here and More<br>Change |
| 00:03:19> 00:03:20: | is Changing Every Day.   |
| 00:03:21> 00:03:25: | I wanted to start by sharing some reflections and observations     |
| 00:03:25> 00:03:29: | about what we're seeing happening with climate and ESG regulation  |
| 00:03:29> 00:03:31: | in the last few years, as well as some of                          |
| 00:03:31> 00:03:33: | what we see on the horizon.  |
| 00:03:33> 00:03:37: | The first thing I want to share about this growing                 |
| 00:03:37> 00:03:41: | regulatory regime around climate, risk and climate and ESG         |
|                     | disclosure   |
| 00:03:41> 00:03:44: | is that it's changing every day.                                   |
| 00:03:44> 00:03:48: | The Urban Land Institute does an annual ESG policy scan            |
| 00:03:48> 00:03:52: | with our green print members for a policy database and             |

| 00:03:52> 00:03:56: | we're currently tracking over 100 global, federal, global<br>federal and  |
|---------------------|---|
| 00:03:56> 00:04:01: | sub federal policies, regulations and incentive programs connected to ESG |
| 00:04:01> 00:04:03: | disclosure and ESG performance.   |
| 00:04:04> 00:04:07: | And for better or worse, this database is continuously out                |
| 00:04:07> 00:04:09: | of date as these new regulations get passed.                              |
| 00:04:11> 00:04:14: | Second thing I'd like to note is that the policies                        |
| 00:04:14> 00:04:17: | that we're seeing in the marketplace right now on ESG                     |
| 00:04:17> 00:04:21: | and climate will impact real estate investors at every level              |
| 00:04:21> 00:04:22: | of their business.  |
| 00:04:23> 00:04:26: | Some of these policies are focused on the asset level,                    |
| 00:04:26> 00:04:28: | some at the fun level and some at the overall                             |
| 00:04:29> 00:04:29: | corporate level.  |
| 00:04:30> 00:04:33: | Some of these policies are global, but many if not                        |
| 00:04:33> 00:04:37: | most are national and sub national and they're very dramatically          |
| 00:04:37> 00:04:39: | often in the market that you're in.                                       |
| 00:04:40> 00:04:43: | And then virtually all of these ESG policies fall into                    |
| 00:04:43> 00:04:44: | three major themes.   |
| 00:04:45> 00:04:49: | First, regulations that focus on data transparency and data quality.      |
| 00:04:50> 00:04:53: | 2nd, regulations that will have an impact on the green                    |
| 00:04:53> 00:04:57: | premium for high performing ESG companies, funds and assets as            |
| 00:04:57> 00:05:00: | well as the brown discount, whether that's through fines or               |
| 00:05:00> 00:05:03: | stricter construction standards for new buildings.                        |
| 00:05:04> 00:05:07: | And finally, regulations that are going to impact your marketing          |
| 00:05:07> 00:05:11: | and communications around climate and ESG, whether this is in             |
| 00:05:11> 00:05:15: | your marketing materials, how you characterize an investment fund that    |
| 00:05:15> 00:05:18: | you're building or even what you can say in public                        |
| 00:05:18> 00:05:20: | on a webinar like this about your programs.                               |
| 00:05:21> 00:05:25: | It's a fascinating and ever changing market environment.                  |
| 00:05:25> 00:05:26: | Next slide please.  |
| 00:05:30> 00:05:32: | So I'd like to provide a a high level overview                            |
| 00:05:32> 00:05:36: | of a couple of the global, regional and national standards                |
| 00:05:36> 00:05:39: | that we see having the greatest impact on the market                      |
| 00:05:39> 00:05:39: | today.  |
| 00:05:40> 00:05:43: | The first one I'd like to introduce people to who                         |
| 00:05:43> 00:05:44: | may already know about it.  |
| 00:05:44> 00:05:47: | If you don't know about it already, it's the Task                         |

| 00:05:47> 00:05:52: | Force on Climate Related Financial Disclosures or<br>TCFDTCFD by itself       |
|---------------------|---|
| 00:05:52> 00:05:56: | is a voluntary standard that helps companies align their corporate            |
| 00:05:56> 00:05:59: | reporting with integrated Financial Reporting standards.                      |
| 00:06:00> 00:06:04: | It requires specific disclosure on climate related risks and opportunities    |
| 00:06:04> 00:06:06: | that your company and your asset will face, both in                           |
| 00:06:06> 00:06:08: | the short and the long term.  |
| 00:06:09> 00:06:13: | TCFD is a voluntary standard, but it's moving from being                      |
| 00:06:13> 00:06:17: | a solely voluntary standard to a regulatory standard in many                  |
| 00:06:17> 00:06:17: | markets.  |
| 00:06:18> 00:06:22: | The proposed SEC rule in the United States references<br>TCFD&TCFD            |
| 00:06:22> 00:06:27: | is a recognized reporting framework or aligns closely with the                |
| 00:06:27> 00:06:31: | national ESG reporting guidelines being released at the national level        |
| 00:06:32> 00:06:36: | for publicly traded companies in Hong Kong, Switzerland,<br>New Zealand,      |
| 00:06:36> 00:06:40: | Singapore, Japan, and several other countries.                                |
| 00:06:42> 00:06:45: | The second regulation I'd like to highlight is SFDR, the                      |
| 00:06:45> 00:06:48: | Sustainable Finance Disclosure Regulation.                                    |
| 00:06:49> 00:06:50: | This is a European regulation.  |
| 00:06:50> 00:06:54: | It's mandatory and requires comprehensive ESG reporting at both the           |
| 00:06:54> 00:06:57: | corporate and the product level, and those are asked for                      |
| 00:06:57> 00:06:58: | in real estate.   |
| 00:06:58> 00:07:00: | Product means real estate asset.  |
| 00:07:01> 00:07:04: | It makes ESG reporting mandatory for all entities over a                      |
| 00:07:04> 00:07:07: | certain size headquartered in or doing business in the EU.                    |
| 00:07:08> 00:07:11: | And it requires fund managers to rate their funds based                       |
| 00:07:11> 00:07:13: | on the level of ESG strategy of fund contains.                                |
| 00:07:14> 00:07:17: | And this data is disclosed to investors, many of whom                         |
| 00:07:17> 00:07:22: | are increasingly require some sustainability integration, which in SFDR speak |
| 00:07:22> 00:07:26: | means that they are requiring funds that are rated at                         |
| 00:07:26> 00:07:29: | a level 8 or 9 as opposed to level 6.   |
| 00:07:31> 00:07:35: | Finally, I'd like to share a third category that we                           |
| 00:07:35> 00:07:38: | see growing at the city and national level.                                   |
| 00:07:38> 00:07:43: | And these are energy performance certificates, primarily in Europe, and       |
| 00:07:43> 00:07:46: | building performance standards primarily in the US.                           |
| 00:07:47> 00:07:50: | One example of a building performance standard is Local                       |
|                     | Law   |

| 00:07:51> 00:07:53: | 97 in New York City, but there are several of  |
|---------------------|--|
| 00:07:54> 00:07:56: | these in London, California, Washington, DC.   |
| 00:07:57> 00:08:00: | They require new construction to meet a net zero or  |
| 00:08:00> 00:08:04: | net zero ready standard by 20-30 or sooner, and they   |
| 00:08:04> 00:08:08: | also require existing buildings to meet an energy or climate                                 |
| 00:08:08> 00:08:12: | performance standard by a certain date or face significant fine                              |
| 00:08:12> 00:08:15: | until they come into compliance.   |
| 00:08:16> 00:08:20: | These regulations apply to both new construction and existing assets,                        |
| 00:08:20> 00:08:23: | although they often treat them differently, and in some cases                                |
| 00:08:23> 00:08:27: | they can even mean that an existing asset could lose   |
| 00:08:27> 00:08:30: | its certificate of occupancy if it can't meet a certain                                      |
| 00:08:30> 00:08:31: | performance standard.  |
| 00:08:32> 00:08:35: | Germany, the Netherlands, France, and the UK all have an                                     |
| 00:08:35> 00:08:36: | EPC based scheme.  |
| 00:08:36> 00:08:40: | New York City, Washington DC, most cities in the state                                       |
| 00:08:40> 00:08:43: | of California and Boston, MA all have a version of   |
| 00:08:43> 00:08:46: | the BPS, as well as more than a dozen other  |
| 00:08:46> 00:08:46: | U.S.   |
| 00:08:46> 00:08:47: | cities and counties.   |
| 00:08:49> 00:08:52: | I'll also note that the EU taxonomy and existing SEC   |
| 00:08:52> 00:08:55: | rules have also increased the level of scrutiny on ESG                                       |
| 00:08:55> 00:08:58: | reporting in an effort to ensure ESG related products are                                    |
| 00:08:58> 00:09:00: | correctly labeled and communicated.  |
| 00:09:01> 00:09:04: | This is an effort to head off what many call   |
| 00:09:04> 00:09:09: | greenwashing or overstating the environmental and ESG claims associated with                 |
| 00:09:09> 00:09:12: | a specific product or corporate performance.   |
| 00:09:13> 00:09:17: | As a result, we're seeing more and more companies bringing                                   |
| 00:09:17> 00:09:20: | in legal counsel to review ESG claims and marketing and                                      |
| 00:09:20> 00:09:26: | investment prospectus, prospective prospectuses and also following some major investigations |
| 00:09:26> 00:09:31: | and fines for companies that regulators felt overstated their environmental                  |
| 00:09:31> 00:09:34: | performance on their assets or their investment portfolios.                                  |
| 00:09:36> 00:09:36: | Next slide.  |
| 00:09:40> 00:09:43: | So what is this going to mean for integrated corporate                                       |
| 00:09:43> 00:09:44: | reporting?   |
| 00:09:44> 00:09:46: | Well, business as usual looks like this.   |
| 00:09:46> 00:09:51: | Profit and loss statements, annual reporting, quarterly reporting and voluntary              |
| 00:09:51> 00:09:54: | sustainability reporting like an annual report or a TCFD or                                  |

| 00:09:54> 00:09:55: | GRASS report.   |
|---------------------|---|
| 00:09:56> 00:09:59: | The future of reporting will look like business as usual,                     |
| 00:09:59> 00:10:04: | plus a mandatory disclosure of verified greenhouse gas<br>emissions, physical |
| 00:10:04> 00:10:08: | climate risk assessments and more ESG related fund<br>classifications.        |
| 00:10:10> 00:10:14: | So what is a forward thinking investor to do in                               |
| 00:10:14> 00:10:18: | real estate as they try and navigate this everchanging regulatory             |
| 00:10:18> 00:10:19: | environment?  |
| 00:10:20> 00:10:23: | Well, the leaders that we surveyed for the report hit                         |
| 00:10:23> 00:10:27: | on four key themes to prepare for this everchanging world                     |
| 00:10:27> 00:10:29: | of ESG regulatory environments.   |
| 00:10:30> 00:10:33: | First, develop a baseline and track your ESG impacts.                         |
| 00:10:34> 00:10:37: | Second, if you haven't already, do a complete assessment of                   |
| 00:10:37> 00:10:41: | your portfolio, not just for physical climate risk, but also                  |
| 00:10:41> 00:10:44: | for the transition risks that are emerging in this new                        |
| 00:10:44> 00:10:45: | regulatory environment.   |
| 00:10:46> 00:10:49: | 3rd If you haven't started already, get some practice to                      |
| 00:10:49> 00:10:54: | prepare for these regulations with voluntary reporting standards and tools.   |
| 00:10:54> 00:10:57: | TCFD has been an important tool for many ULI member                           |
| 00:10:57> 00:11:01: | companies as they prepare to report for SFDR as they                          |
| 00:11:01> 00:11:04: | get ready for the SCC climate rule and as they                                |
| 00:11:04> 00:11:07: | get ready to report on many of the stock exchanges                            |
| 00:11:07> 00:11:09: | that have adopted TCFD.   |
| 00:11:10> 00:11:14: | And then finally proactively start addressing climate risk and product        |
| 00:11:14> 00:11:17: | offerings and at the asset level with clear data-driven marketing             |
| 00:11:17> 00:11:19: | and communications.   |
| 00:11:20> 00:11:22: | Now we're lucky enough today to be joined by one                              |
| 00:11:23> 00:11:26: | of those very forward thinking climate risk savvy real estate                 |
| 00:11:26> 00:11:27: | investment managers.  |
| 00:11:28> 00:11:30: | So at this point, I'd like to turn it over                                    |
| 00:11:30> 00:11:33: | to Laura Kraft from Heidman to share a little bit                             |
| 00:11:33> 00:11:36: | about what she's seeing in the marketplace and her and                        |
| 00:11:36> 00:11:38: | their approach to assessing climate risk.                                     |
| 00:11:40> 00:11:42: | Billy, appreciate that and thanks for also.                                   |
| 00:11:42> 00:11:47: | Setting the landscape around regulations, so I work for Heitmann.             |
| 00:11:47> 00:11:50: | We are an investment manager with over 50 billion assets                      |
| 00:11:50> 00:11:52: | under management around the globe.  |
| 00:11:53> 00:11:56: | And what I'm going to go through is some of                                   |

| 00:11:56> 00:11:59: | the regulations that are impacting at the firm level, the                     |
|---------------------|---|
| 00:11:59> 00:12:01: | fund level and the building level.  |
| 00:12:01> 00:12:04: | So at the firm level what we're seeing is.                                    |
| 00:12:05> 00:12:08: | Firms are are going to need to be able to                                     |
| 00:12:08> 00:12:12: | disclose climate related risk within at the company level, The                |
| 00:12:12> 00:12:16: | proposed SCC regulations really hone in on three different areas,             |
| 00:12:17> 00:12:22: | material physical climate risk, greenhouse gas emissions, climate targets and |
| 00:12:22> 00:12:23: | transition plants.  |
| 00:12:24> 00:12:26: | So talk about climate risk.   |
| 00:12:26> 00:12:28: | As it relates to real estate, we tend to talk                                 |
| 00:12:28> 00:12:32: | about it from two different angles, the physical risk and                     |
| 00:12:32> 00:12:35: | the transition risk, so real estate investment.                               |
| 00:12:35> 00:12:40: | Managers have portfolios of real estate, so buildings in particular           |
| 00:12:40> 00:12:46: | locations, and those locations are vulnerable to extreme weather events       |
| 00:12:46> 00:12:51: | such as hurricanes, typhoons, droughts, flooding, sea level rise, wildfire.   |
| 00:12:51> 00:12:53: | So all of these things could occur.   |
| 00:12:53> 00:12:56: | And so if you have a portfolio of assets in                                   |
| 00:12:56> 00:12:59: | various locations, you want to understand?                                    |
| 00:12:59> 00:13:03: | The threat of any of these physical events to your                            |
| 00:13:03> 00:13:08: | portfolio beyond just the physical threat, we also want to                    |
| 00:13:08> 00:13:10: | know the transition risk.   |
| 00:13:10> 00:13:14: | So transition relates to any kind of regulatory changes that                  |
| 00:13:14> 00:13:16: | could occur at the the fun level, at the firm                                 |
| 00:13:16> 00:13:18: | level and the local level.  |
| 00:13:18> 00:13:21: | So and how that could impact a portfolio.                                     |
| 00:13:22> 00:13:24: | Beyond that it's around resource availability.                                |
| 00:13:24> 00:13:26: | So you have an asset that needs.  |
| 00:13:27> 00:13:28: | Access to energy and water.   |
| 00:13:29> 00:13:32: | What's that availability for your portfolio?                                  |
| 00:13:33> 00:13:36: | Is there going to be a strain on particular assets                            |
| 00:13:36> 00:13:37: | within your portfolio?  |
| 00:13:38> 00:13:43: | Additionally, portfolios need to track greenhouse gas emissions, how much     |
| 00:13:43> 00:13:47: | carbon is being emitted from your portfolio and trying to                     |
| 00:13:47> 00:13:50: | find ways to reduce the carbon emissions from a real                          |
| 00:13:51> 00:13:52: | estate perspective.   |
| 00:13:52> 00:13:55: | We also very much care about insurance and taxes.                             |
| 00:13:56> 00:14:00: | Insurance is a is a a line item that we've                                    |

| 00:14:00> 00:14:05:<br>00:14:05> 00:14:10: | been very focused on recently as insurance rates have been                |
|--|---|
| 00:14:10> 00:14:14:                        | going up more than normal with the the most impacted                      |
|  | events in history over the past few years.                                |
| 00:14:14> 00:14:17:                        | So insurance is a major factor that we look at.                           |
| 00:14:18> 00:14:21:                        | And then lastly, change an investor demand, if you have                   |
| 00:14:21> 00:14:23:                        | a portfolio of of assets and you plan to sell                             |
| 00:14:23> 00:14:26:                        | some of those assets, is there still demand in those                      |
| 00:14:27> 00:14:30:                        | markets or is that demand shifting because of some of                     |
| 00:14:30> 00:14:30:                        | these risks?  |
| 00:14:34> 00:14:36:                        | So just to really translate and hone it down into                         |
| 00:14:36> 00:14:39:                        | the financials, the left side are some of the things                      |
| 00:14:39> 00:14:42:                        | that could occur that would impact property valuations.                   |
| 00:14:42> 00:14:45:                        | So as I mentioned, if you have reduced demand, then                       |
| 00:14:45> 00:14:49:                        | that would mean that you know, there's more risk associated               |
| 00:14:49> 00:14:52:                        | to that asset, which would drive down that property valuation.            |
| 00:14:53> 00:14:57:                        | You could have additional operating expenses like I mentioned, insurance  |
| 00:14:57> 00:14:58:                        | or real estate taxes.   |
| 00:14:59> 00:15:02:                        | Or resource costs and all of those things would drive                     |
| 00:15:02> 00:15:05:                        | up operating expenses and drive down the net operating income,            |
| 00:15:05> 00:15:07:                        | the cash flows and the property valuations.                               |
| 00:15:08> 00:15:10:                        | So again, this is just tying it to why we                                 |
| 00:15:10> 00:15:13:                        | care about climate risk and and this is how we                            |
| 00:15:13> 00:15:15:                        | look at it from an underwriting perspective.                              |
| 00:15:20> 00:15:23:                        | Leading investment managers are are looking at climate risk               |
|  | as  |
| 00:15:23> 00:15:26:                        | they acquire assets on in three different ways.                           |
| 00:15:26> 00:15:29:                        | We're looking at climate risk at the building level.                      |
| 00:15:29> 00:15:31:                        | So is the building in a location or in an                                 |
| 00:15:31> 00:15:35:                        | area that's exposed to climate risk and is that building                  |
| 00:15:35> 00:15:35:                        | exposed?  |
| 00:15:35> 00:15:38:                        | So is it in a flood zone and has that                                     |
| 00:15:38> 00:15:41:                        | building been elevated out of the flood zone.                             |
| 00:15:41> 00:15:45:                        | So trying to understand the true risk to particular investment.           |
| 00:15:46> 00:15:50:                        | Beyond just the asset level, it's understanding the market, is            |
| 00:15:50> 00:15:54:                        | the market exposed to extreme weather events such as heat,                |
| 00:15:54> 00:15:59:                        | stress, droughts, wildfire, typhoons that could impact the overall market |
| 00:15:59> 00:16:03:                        | and trying to understand the markets mitigation efforts to limit          |
| 00:16:03> 00:16:07:                        | the risk to the market and to the particular investment                   |
| 00:16:07> 00:16:10:                        | or the particular asset that you may be invested in.                      |
| 00:16:11> 00:16:15:                        | And beyond the asset level and the market level                           |
|  |   |

|                     | assessments,  |
|---------------------|---|
| 00:16:15> 00:16:19: | investment managers are also looking at their portfolios                |
|                     | trying not  |
| 00:16:19> 00:16:22: | to overexpose or portfolio to climate res.                              |
| 00:16:22> 00:16:25: | Meaning that you may be okay with a certain level                       |
| 00:16:25> 00:16:28: | of risk, but you don't want a weather event to                          |
| 00:16:29> 00:16:30: | occur to impact.  |
| 00:16:30> 00:16:33: | A large portion of your portfolio.                                      |
| 00:16:33> 00:16:37: | So we look at climate risk from a diversification factor                |
| 00:16:37> 00:16:39: | analysis as well.   |
| 00:16:39> 00:16:42: | And so any of these risk assessments that we do                         |
| 00:16:42> 00:16:47: | could translate into additional next steps of additional due diligence  |
| 00:16:47> 00:16:51: | as we're acquiring the asset, increased underwriting cost over that     |
| 00:16:51> 00:16:55: | whole period of insurance or operating expenses sometimes if we         |
| 00:16:55> 00:16:57: | think that the the asset.   |
| 00:16:57> 00:17:00: | May have less interest when we go to sell the                           |
| 00:17:00> 00:17:03: | asset in five or ten years, We may add a                                |
| 00:17:03> 00:17:07: | higher exit cap rate which would decrease the valuation and             |
| 00:17:07> 00:17:11: | then at times not proceed with a particular investment because          |
| 00:17:11> 00:17:12: | it's deemed too risky.  |
| 00:17:15> 00:17:18: | So as a good guidance for investment managers and for                   |
| 00:17:18> 00:17:21: | companies that are just starting on this journey.                       |
| 00:17:21> 00:17:23: | TCFD is a great framework.  |
| 00:17:23> 00:17:28: | It's been endorsed by a number of countries around the                  |
| 00:17:28> 00:17:32: | globe and there are a lot of examples of TCFD                           |
| 00:17:32> 00:17:35: | reporting by funds and by firms.  |
| 00:17:35> 00:17:39: | And So what TCFD is organized around is governance, strategy,           |
| 00:17:39> 00:17:41: | risk management and metrics and targets.                                |
| 00:17:42> 00:17:47: | So leading practices to have a dedicated sustainability team, senior    |
| 00:17:47> 00:17:51: | leadership oversights and buy in a strategy to have integrated          |
| 00:17:51> 00:17:56: | business planning related to climate risk and climate opportunities and |
| 00:17:56> 00:18:01: | analysis upfront of all investments and assessment of physical risks    |
| 00:18:01> 00:18:06: | and transition risks while also identifying opportunities that could be |
| 00:18:06> 00:18:08: | implemented into the portfolio.   |

| 00:18:09> 00:18:12: | And having targets and metrics, so setting targets that can                |
|---------------------|--|
| 00:18:12> 00:18:16: | be tracked and that you can see your progression over                      |
| 00:18:16> 00:18:16: | time.  |
| 00:18:17> 00:18:20: | So some of those example metrics would be energy, carbon,                  |
| 00:18:21> 00:18:23: | water, waste rating, certifications.                                       |
| 00:18:26> 00:18:32: | So beyond the firm level, investment products are also being               |
| 00:18:32> 00:18:35: | imposed by regulations, so in Europe.                                      |
| 00:18:36> 00:18:39: | Well, really any fund marketed in Europe has to comply                     |
| 00:18:39> 00:18:42: | with SFDR and what that is is funds have to                                |
| 00:18:42> 00:18:46: | be categorized as either an Article 6, Article 8 or                        |
| 00:18:46> 00:18:47: | Article 9 fund.  |
| 00:18:47> 00:18:51: | Article 6 funds, they may integrate sustainability, but they do            |
| 00:18:51> 00:18:53: | not promote it as an objective of the fund.                                |
| 00:18:54> 00:18:58: | Whereas Article 8 funds promotes either an environmental or social         |
| 00:18:58> 00:19:02: | characteristic, Article 9 Funds has sustainable investment as an objective |
| 00:19:02> 00:19:03: | of the Fund.   |
| 00:19:04> 00:19:06: | What we're seeing in the US is different.                                  |
| 00:19:07> 00:19:11: | The proposed names amendment, the names rule which came out                |
| 00:19:11> 00:19:14: | just a few weeks ago states that if you have                               |
| 00:19:14> 00:19:18: | ESG or Sustainability in the funds name, then 80% of                       |
| 00:19:18> 00:19:21: | those assets have to align with the funds name.                            |
| 00:19:22> 00:19:25: | So this is not a mandate of like in Europe                                 |
| 00:19:25> 00:19:29: | that all funds must be categorized you under the ESG                       |
| 00:19:29> 00:19:33: | sustainability realm, but the SEC is is saying that if                     |
| 00:19:33> 00:19:33: | you're.  |
| 00:19:33> 00:19:37: | Promoting in the fund's name, then you need to back                        |
| 00:19:37> 00:19:40: | up what's in the fund and 80% of that needs                                |
| 00:19:40> 00:19:42: | to match the fund's name.  |
| 00:19:45> 00:19:50: | So going beyond product level regulations, we're seeing that there         |
| 00:19:50> 00:19:54: | are various local regulations around the globe and these buckets           |
| 00:19:55> 00:19:57: | are general categorizations.   |
| 00:19:57> 00:20:00: | What we're seeing in North America, Europe and Asia Pacific,               |
| 00:20:00> 00:20:02: | in North America, we're seeing that.                                       |
| 00:20:02> 00:20:05: | Benchmarking requirements related to energy and carbon.                    |
| 00:20:06> 00:20:09: | And in more advanced markets such as in New York                           |
| 00:20:09> 00:20:13: | and Boston, we're seeing that there's carbon limits and fines.             |
| 00:20:13> 00:20:16: | So buildings can only emit a certain amount of carbon                      |

| 00:20:16> 00:20:18: | and if they go above that, then they have to                                      |
|---------------------|---|
| 00:20:18> 00:20:18: | pay a fine.   |
| 00:20:19> 00:20:23: | In Europe, what we're seeing is that buildings have to                            |
| 00:20:23> 00:20:27: | benchmark against the energy performance certificate rating and that's a          |
| 00:20:27> 00:20:31: | letter grade rating of an ABCDA being the highest, most                           |
| 00:20:31> 00:20:32: | efficient building.   |
| 00:20:33> 00:20:36: | And what we're seeing is that in more advanced regulations                        |
| 00:20:36> 00:20:40: | and particularly the Netherlands starting in 2023, so this year                   |
| 00:20:40> 00:20:43: | that buildings have to have a letter grade of a                                   |
| 00:20:43> 00:20:45: | C in order to lease the building.   |
| 00:20:46> 00:20:50: | That same sentiment, that same regulation is going to be                          |
| 00:20:50> 00:20:52: | enacted in the UK starting in 2025.   |
| 00:20:53> 00:20:56: | So it's if you're a building owner, you may lose                                  |
| 00:20:56> 00:20:59: | the right to lease your asset if it falls under                                   |
| 00:20:59> 00:21:03: | the energy efficiency letter grade of a C In Asia                                 |
| 00:21:03> 00:21:08: | Pacific, we're seeing that there are energy disclosure benchmarking requirements, |
| 00:21:08> 00:21:12: | so disclosing the energy and carbon of a particular asset                         |
| 00:21:12> 00:21:15: | and in advance a local regulations.   |
| 00:21:15> 00:21:18: | We're seeing in Japan, Australia and Singapore is there's a                       |
| 00:21:19> 00:21:23: | baseline for new construction and major renovations that the buildings            |
| 00:21:23> 00:21:27: | have to meet a certain energy efficiency level in order                           |
| 00:21:27> 00:21:30: | to get approved and final sign off for you to                                     |
| 00:21:30> 00:21:34: | to finish development of that particular asset or of the                          |
| 00:21:34> 00:21:35: | major renovation.   |
| 00:21:35> 00:21:38: | So each region is tackling this slightly differently.                             |
| 00:21:41> 00:21:45: | So how might these building regulations impact an investor or                     |
| 00:21:45> 00:21:46: | an investment manager?  |
| 00:21:46> 00:21:51: | It could cause additional unexpected capital expenditures to upgrade an           |
| 00:21:51> 00:21:54: | asset to make it in compliance to be able to                                      |
| 00:21:54> 00:21:58: | lease the asset or to be able to avoid fines.                                     |
| 00:21:58> 00:22:02: | It could mean less liquidity as investors are are looking                         |
| 00:22:02> 00:22:05: | at assets to buy and they see that the asset                                      |
| 00:22:05> 00:22:08: | is not in compliance or you know doesn't meet the                                 |
| 00:22:08> 00:22:10: | letter grade of a C or is going to need   |
| 00:22:10> 00:22:14: | to pay fines for the carbon emissions that it's mitting                           |
| 00:22:14> 00:22:17: | that you could see less liquidity from investors and and                          |
| 00:22:17> 00:22:20: | lenders wanting to to lend on the asset.  |
| 00:22:21> 00:22:23: | We're also saying that there are a number of corporate                            |

| 00:22:23> 00:22:26: | tenants with sustainability goals around the world.                 |
|---------------------|---|
| 00:22:26> 00:22:29: | And more and more they are wanting to locate their                  |
| 00:22:29> 00:22:34: | operations and buildings that have high efficiency grades and align |
| 00:22:34> 00:22:36: | with their sustainability targets.                                  |
| 00:22:36> 00:22:39: | And so if you do have a building that is                            |
| 00:22:39> 00:22:42: | of high performance, you could attract more tenants and if          |
| 00:22:42> 00:22:45: | you do fall below that, you may not attract the                     |
| 00:22:45> 00:22:48: | top tier corporate tenants into your building.                      |
| 00:22:49> 00:22:52: | And then as I mentioned, there are certain regulations and          |
| 00:22:52> 00:22:54: | coming out of Europe that you may lose the ability                  |
| 00:22:54> 00:22:57: | to lease your building and and really ultimately sell your          |
| 00:22:57> 00:23:00: | building if you don't meet certain grades.                          |
| 00:23:00> 00:23:03: | So what all this means is it could mean additional                  |
| 00:23:03> 00:23:07: | time and consulting fees by investors and investment managers to    |
| 00:23:07> 00:23:11: | analyze portfolios and bring buildings into compliance.             |
| 00:23:11> 00:23:15: | And you know, lastly, there could be reputational risk if           |
| 00:23:15> 00:23:18: | you have buildings that you know can't be leased or                 |
| 00:23:18> 00:23:21: | can't be sold or incur particular fines.                            |
| 00:23:21> 00:23:23: | And so all these things want to be avoided.                         |
| 00:23:26> 00:23:28: | So how are investors using this data or how are                     |
| 00:23:28> 00:23:30: | we seeing some investors use this data.                             |
| 00:23:31> 00:23:35: | We're seeing some investors use this data to determine where        |
| 00:23:35> 00:23:38: | to deploy capital to place capital into an Article 8                |
| 00:23:38> 00:23:40: | fund or an Article 9 fund.  |
| 00:23:41> 00:23:44: | We're also seeing that in in particularly in Europe at              |
| 00:23:44> 00:23:47: | times there are a green premium for buildings that are              |
| 00:23:47> 00:23:49: | meeting the higher standards.                                       |
| 00:23:50> 00:23:53: | But ultimately what we're seeing with this transparency is, is      |
| 00:23:53> 00:23:57: | investors really want this data in order to compare companies       |
| 00:23:57> 00:24:00: | that compare buildings, compare funds against each other.           |
| 00:24:00> 00:24:04: | But on the negative side, what we're seeing is that                 |
| 00:24:04> 00:24:08: | this could cause some buildings to become stranded or obsolete      |
| 00:24:08> 00:24:11: | in the marketplace or need additional capital.                      |
| 00:24:11> 00:24:14: | So all of a sudden, there's a brown discount applied                |
| 00:24:14> 00:24:17: | to the building because in order to bring it to                     |
| 00:24:17> 00:24:20: | standard, additional capital has to be deployed into that asset     |
| 00:24:20> 00:24:23: | in order to to really make it competitive in the                    |
| 00:24:23> 00:24:24: | marketplace.  |
| 00:24:24> 00:24:27: | So this is how we're beginning to see investors and                 |

| 00:24:27> 00:24:30: | investment managers use some of this data that's coming out               |
|---------------------|---|
| 00:24:30> 00:24:32: | of investment managers and owners.  |
| 00:24:35> 00:24:37: | So lastly I just want to sum up that change                               |
| 00:24:37> 00:24:37: | is coming.  |
| 00:24:38> 00:24:39: | This was our fourth report.   |
| 00:24:39> 00:24:44: | This was the hardest report to write because very factly                  |
| 00:24:44> 00:24:46: | that change has been occurring.   |
| 00:24:46> 00:24:49: | The SEC names rule just came out a few weeks                              |
| 00:24:49> 00:24:49: | ago.  |
| 00:24:49> 00:24:53: | The SFDR is has opened a consultation.                                    |
| 00:24:53> 00:24:55: | So, so there could be some adjustments there.                             |
| 00:24:55> 00:24:59: | Local Law 97 in New York has come out with                                |
| 00:24:59> 00:25:03: | some, some statements that could roll back some of the                    |
| 00:25:03> 00:25:06: | the fines that would occur in 2024.                                       |
| 00:25:07> 00:25:08: | So it's really important to stay up to speed.                             |
| 00:25:08> 00:25:13: | But most importantly for investment managers, it's really identifying the |
| 00:25:13> 00:25:16: | regulatory risk in your firm and the products and at                      |
| 00:25:16> 00:25:19: | the buildings managing and under riding those risks and making            |
| 00:25:19> 00:25:22: | sure that you can disclose those to your investors.                       |
| 00:25:23> 00:25:26: | So with that, you know it's important to stay up                          |
| 00:25:26> 00:25:28: | to speed with the changing regulatory landscape.                          |
| 00:25:31> 00:25:32: | I'll pass it back to Billy at this time.                                  |
| 00:25:36> 00:25:37: | Thanks, Laura.  |
| 00:25:37> 00:25:37: | l apologize.  |
| 00:25:37> 00:25:40: | I'm having a little bit of trouble with my video.                         |
| 00:25:40> 00:25:41: | Looks like we're back though.   |
| 00:25:42> 00:25:44: | Anika, like to kick it over to you now.                                   |
| 00:25:46> 00:25:49: | Love to hear your thoughts on this evolving world of                      |
| 00:25:49> 00:25:53: | ESG regulatory reporting and especially what it means for investment      |
| 00:25:53> 00:25:55: | analysts and advisors.  |
| 00:25:56> 00:25:58: | Sure, Billy, thank you.   |
| 00:25:58> 00:25:59: | And Laura, thank you.   |
| 00:25:59> 00:26:02: | That was a truly a master class in how a                                  |
| 00:26:02> 00:26:08: | climate actually impacts the investment, the the mechanics of investment  |
| 00:26:08> 00:26:10: | in real estate.   |
| 00:26:10> 00:26:12: | So thank you so much.   |
| 00:26:12> 00:26:16: | Let me just say a few high level comments and                             |
| 00:26:16> 00:26:19: | reactions and then we can we can go from there.                           |
| 00:26:20> 00:26:24: | The first point I wanted to just echo is that.                            |

| 00:26:24> 00:26:29: | Pretty soon investors are going to be inundated with more     |
|---------------------|---|
| 00:26:29> 00:26:34: | disclosure from companies when it comes to climate, and as    |
| 00:26:34> 00:26:39: | a result, investors themselves are of course going to have    |
| 00:26:39> 00:26:43: | to disclose more information themselves.                      |
| 00:26:43> 00:26:46: | The the question will not be do you have the                  |
| 00:26:46> 00:26:46: | data.   |
| 00:26:47> 00:26:49: | The question for an investor will be, do you know             |
| 00:26:49> 00:26:51: | what to use the data for?                                     |
| 00:26:52> 00:26:55: | And I think that is a particularly true when it               |
| 00:26:55> 00:26:58: | comes to climate and it's particularly true in the real       |
| 00:26:58> 00:26:59: | asset space.  |
| 00:27:00> 00:27:04: | Just knowing for example the embodied CO2 in a physical       |
| 00:27:04> 00:27:07: | asset or in a corporate may give you a sense                  |
| 00:27:07> 00:27:12: | that you have information that will make a better investment  |
| 00:27:12> 00:27:13: | decision.   |
| 00:27:13> 00:27:15: | But you need to know how to actually integrate that           |
| 00:27:15> 00:27:18: | in your decision making, and I think Laura did a.             |
| 00:27:18> 00:27:23: | Really great job explaining just how different climate risks  |
|                     | can   |
| 00:27:23> 00:27:28: | impact income, can impact expenses, can impact valuations     |
|                     | and so  |
| 00:27:28> 00:27:29: | on and so forth.  |
| 00:27:29> 00:27:32: | So the first one I want to just get across                    |
| 00:27:32> 00:27:35: | is you're you're going to have, you're going to be            |
| 00:27:35> 00:27:38: | getting a lot of data in the next little while,               |
| 00:27:38> 00:27:40: | but how you actually use it will be the key                   |
| 00:27:40> 00:27:41: | question.   |
| 00:27:41> 00:27:44: | The second point I wanted to get across is that               |
| 00:27:44> 00:27:46: | we're living in a time where.                                 |
| 00:27:47> 00:27:51: | It's not just important to understand the the fact that       |
| 00:27:51> 00:27:55: | climate has risk associated for investment, but you have to   |
| 00:27:55> 00:28:00: | understand how that risk will transmit itself into your       |
|                     | investments.  |
| 00:28:00> 00:28:01: | What do I mean by that?                                       |
| 00:28:02> 00:28:05: | For the last 20 years, people have been going on              |
| 00:28:05> 00:28:07: | and on and on about physical climate risk.                    |
| 00:28:08> 00:28:10: | Oh, extreme weather events.                                   |
| 00:28:10> 00:28:13: | So this, so that, you know, droughts, floods.                 |
| 00:28:14> 00:28:17: | But I must say it's been a shortcoming of the                 |
| 00:28:17> 00:28:20: | investment industry as a whole, as I see it, to               |
| 00:28:20> 00:28:25: | understand the transmission that physical climate will impact |
|                     | insurance premiums,   |
| 00:28:25> 00:28:29: | that will impact the expenses associated with buying or       |

|                     | owning   |
|---------------------|--|
| 00:28:30> 00:28:33: | real estate, that will impact net income, also will impact                 |
| 00:28:33> 00:28:37: | the desire of folks to live in certain places and                          |
| 00:28:37> 00:28:39: | instead might actually move.   |
| 00:28:39> 00:28:41: | So they'll be a step change function.                                      |
| 00:28:41> 00:28:46: | Our step function change in how people react to these                      |
| 00:28:46> 00:28:50: | risks and I got to say that whole transmission mechanism                   |
| 00:28:50> 00:28:52: | wasn't really mapped out.  |
| 00:28:53> 00:28:57: | Instead, what we saw investors spending the last five years                |
| 00:28:57> 00:29:00: | doing was buying all of these quasi scientific.                            |
| 00:29:01> 00:29:04: | Climate models to understand where the risks may be, but                   |
| 00:29:04> 00:29:07: | didn't actually think through what that will mean in the                   |
| 00:29:07> 00:29:08: | real world.  |
| 00:29:08> 00:29:09: | And we're seeing this right now.   |
| 00:29:09> 00:29:14: | We're actually starting to see migration away from coastal cities.         |
| 00:29:14> 00:29:17: | We're seeing migration away from coastal states.                           |
| 00:29:18> 00:29:22: | In the United States, you're seeing at Laura rightly mentioned             |
| 00:29:22> 00:29:26: | just the spike in home insurance premiums that we're seeing                |
| 00:29:27> 00:29:31: | thirty 4050% a year increases in Florida, in California and                |
| 00:29:31> 00:29:31: | Texas.   |
| 00:29:32> 00:29:33: | This is a global phenomenon.   |
| 00:29:33> 00:29:34: | It's also a huge.  |
| 00:29:35> 00:29:37: | Political risk, which I'll come to in a second, but                        |
| 00:29:37> 00:29:41: | I think that's that that whole transmission is completely underappreciated |
| 00:29:41> 00:29:44: | and what's something we've been advocating to our clients to               |
| 00:29:44> 00:29:47: | really just not just understand what the risks are, but                    |
| 00:29:47> 00:29:49: | how they'll actually play themselves out.                                  |
| 00:29:50> 00:29:53: | The final point I'll just say as a high level                              |
| 00:29:53> 00:29:57: | opening reaction to these great presentations is we spent a                |
| 00:29:57> 00:29:59: | lot of time talking about data.  |
| 00:29:59> 00:30:01: | We spent a lot of time talking about risk.                                 |
| 00:30:02> 00:30:05: | This is also a once in a generation or once                                |
| 00:30:05> 00:30:09: | in a lifetime opportunity for real assets investors and for                |
| 00:30:09> 00:30:13: | real estate investors and infrastructure investors.                        |
| 00:30:13> 00:30:16: | And this being that over the next 30 to 50                                 |
| 00:30:16> 00:30:21: | years, we're going to have to basically build or rebuild                   |
| 00:30:21> 00:30:26: | the entire physical infrastructure of the world.                           |
| 00:30:27> 00:30:30: | That, that, that that is a level of of capital                             |
| 00:30:30> 00:30:34: | investment that we have not seen since I I would                           |
| 00:30:34> 00:30:37: | say post major war, major conflict.  |
| 00:30:37> 00:30:41: | And if you've studied in a post 1945, Europe or                            |

| Japan, I mean sitting in Japan today, you know that                      |
|--|
| generational wealth was created by investors who understood.             |
| What was going to happen as entire cities and countries                  |
| had to be rebuilt from scratch, that's sort of where                     |
| where we are heading to I think over the next                            |
| 20 to 30 years when it comes to climate And                              |
| so having that opportunity lens understanding, migration, understanding. |
| The economic geography basically of cities and of countries will         |
| help investors allocate capital to where it needs to go                  |
| and I'm looking forward to chatting about that somewhere.                |
| So those are just a a few high level comments                            |
| after two very good presentations and looking forward to discussion.     |
| Awesome.   |
| Thank you, Annika.   |
| I have a couple questions for our panelists, but I                       |
| do want to remind folks who have joined us today                         |
| that if you have a question, please drop it in                           |
| the chat and we'll work through as many of those                         |
| questions as we can get to.  |
| Thankfully, we do have plenty of time for questions.                     |
| It's great to be the moderator and be able to                            |
| ask the first couple.  |
| Maybe I could start with you.  |
| There's going to be this treasure trove of climate data                  |
| that will be more.   |
| Comparable across companies, More universal.                             |
| It'll be audit quality.  |
| Does this change the game for real estate investors and                  |
| investment analysts?   |
| Do they know what to do with this data?                                  |
| Are they excited?  |
| What?  |
| I mean, not to predict the future, but it's gonna                        |
| happen.  |
| Yeah, I'm not sure.  |
| Is is actually my my answer.   |
| I'm quite at odds with many people in the industry                       |
| who think disclosure of data around climate solves.                      |
| Major problems I've my lived experience is that if you                   |
|  |

| 00:32:38> 00:32:40: | go to an investment analyst or you go to an                          |
|---------------------|--|
| 00:32:41> 00:32:44: | investor they generally don't know what to do with most              |
| 00:32:44> 00:32:45: | of this data.  |
| 00:32:45> 00:32:49: | And again This is why Laura's presentation was just exceptional      |
| 00:32:49> 00:32:52: | because it was so clear how these different risks that               |
| 00:32:52> 00:32:56: | can actually hit hit a an income statement in this                   |
| 00:32:56> 00:32:56: | space.   |
| 00:32:56> 00:32:59: | So first what I would say is I'm not sure                            |
| 00:32:59> 00:33:03: | if this avalanche of data actually will help and investors           |
| 00:33:03> 00:33:03: | need.  |
| 00:33:03> 00:33:07: | To actually have an understanding of what matters, how it            |
| 00:33:07> 00:33:10: | matters and how we can become part of their models.                  |
| 00:33:10> 00:33:14: | The second thing I would say is that the part                        |
| 00:33:14> 00:33:19: | of the the risk side that we don't really understand                 |
| 00:33:19> 00:33:23: | and and micro data can't really help us on is                        |
| 00:33:23> 00:33:24: | the policy.  |
| 00:33:24> 00:33:27: | Risk associated with climate.  |
| 00:33:28> 00:33:31: | And you know, folks talk about the inevitable policy response,       |
| 00:33:31> 00:33:33: | they talk about things like that.                                    |
| 00:33:33> 00:33:36: | But in in plain language what you are seeing is                      |
| 00:33:37> 00:33:40: | level of government and state intervention.                          |
| 00:33:40> 00:33:43: | In the insurance market for example, that is we've never             |
| 00:33:43> 00:33:46: | seen anything like this before in the United States.                 |
| 00:33:46> 00:33:51: | In Florida, for example, you have the state, the government          |
| 00:33:51> 00:33:55: | owned insurance agency that is now carrying a lot of                 |
| 00:33:55> 00:34:00: | the economic risk because the private insurers are 1 by              |
| 00:34:00> 00:34:03: | 1 deciding to fold up shop and leave.                                |
| 00:34:04> 00:34:06: | That's not a that's not a data point that you                        |
| 00:34:06> 00:34:09: | get from a company that you actually have to understand              |
| 00:34:09> 00:34:10: | the whole system.  |
| 00:34:10> 00:34:13: | And so I think one of the points that I                              |
| 00:34:13> 00:34:16: | make to clients is you actually need to have a                       |
| 00:34:16> 00:34:18: | systems level understanding of this.                                 |
| 00:34:18> 00:34:21: | And and Billy and Laura, you guys are masters at                     |
| 00:34:21> 00:34:25: | this because even in your presentations you talked about the         |
| 00:34:25> 00:34:29: | policy, the regulation, the investments that changes in capital flow |
| 00:34:29> 00:34:32: | valuation and even that just gives you a sense of                    |
| 00:34:32> 00:34:33: | where and how.   |
| 00:34:34> 00:34:37: | The world evolves, but I think that is generally missed              |
| 00:34:37> 00:34:40: | by most fairly naive investment analysts I must say and              |
| 00:34:40> 00:34:43: | and and and investors, that's the second point I would               |
|                     |  |

| 00:34:43> 00:34:44: | say about data.  |
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| 00:34:45> 00:34:49: | And the third thing about data, you know, I always               |
| 00:34:49> 00:34:53: | laugh, Billy, is that if it was December 15th, 2015,             |
| 00:34:53> 00:34:57: | the day the Paris Agreement was signed, there was no             |
| 00:34:57> 00:35:00: | real data point that would have told you.                        |
| 00:35:01> 00:35:06: | That this, you know, crazy South African American guy sitting    |
| 00:35:06> 00:35:10: | out in California was, you know, who's creating this car         |
| 00:35:10> 00:35:14: | company that really was going to change how 1/4 of               |
| 00:35:14> 00:35:17: | global emissions evolved.  |
| 00:35:17> 00:35:19: | That that was going to be the right guy to                       |
| 00:35:19> 00:35:21: | invest in, the right company to invest in.                       |
| 00:35:22> 00:35:23: | You know, there's in some ways there's a.                        |
| 00:35:24> 00:35:25: | There's a limit to how much.                                     |
| 00:35:26> 00:35:29: | Backward looking data can actually help you on when you          |
| 00:35:29> 00:35:33: | when investors are trying to invest in the future and            |
| 00:35:33> 00:35:36: | investing is about discounting future earnings to today.         |
| 00:35:37> 00:35:39: | And so you actually have to have a view on                       |
| 00:35:39> 00:35:39: | the future.  |
| 00:35:39> 00:35:42: | And so the last point I would just make is                       |
| 00:35:42> 00:35:45: | that again, I'm not, I'm not, I'm not dismissing data,           |
| 00:35:45> 00:35:49: | but investing is a little bit about imagination and it's         |
| 00:35:49> 00:35:53: | about creativity and it's about understanding what may           |
|                     | transpire.   |
| 00:35:53> 00:35:55: | And what we are seeing right now and Bill, Bill                  |
| 00:35:55> 00:35:57: | you said it at the beginning, I think you had                    |
| 00:35:57> 00:36:00: | a very nice turn of phrase that you're you know                  |
| 00:36:00> 00:36:03: | you're trying to track 100 plus different disclosures and policy |
| 00:36:03> 00:36:03: | things.  |
| 00:36:03> 00:36:06: | I mean this is happening in in real time, there's                |
| 00:36:06> 00:36:07: | no precedent for this.   |
| 00:36:08> 00:36:11: | And so, you know, again, I, I, I, I think                        |
| 00:36:11> 00:36:12: | the data will help.  |
| 00:36:12> 00:36:16: | But really this just requires people who have good judgment,     |
| 00:36:16> 00:36:19: | can understand how things are going and have a little            |
| 00:36:19> 00:36:21: | bit of creativity and think outside the box.                     |
| 00:36:23> 00:36:23: | Yeah.  |
| 00:36:23> 00:36:24: | Thanks, Anika.   |
| 00:36:24> 00:36:24: | That was great.  |
| 00:36:24> 00:36:27: | And I, you know I think that is a good                           |
| 00:36:27> 00:36:29: | segue that the fact that this is always in flux                  |
| 00:36:29> 00:36:32: | but yet you have to meet disclosure guidelines is a              |
| 00:36:33> 00:36:36: | weird challenge, especially if you're setting up funds that are  |

| 00:36:36> 00:36:39: | made-up of assets you're going to be holding for five                |
|---------------------|--|
| 00:36:39> 00:36:40: | to 10 years.   |
| 00:36:41> 00:36:45: | Laura, as a real estate investment manager, you and I                |
| 00:36:45> 00:36:48: | were talking offline about SFDR.                                     |
| 00:36:48> 00:36:50: | You had about two years to figure out how to.                        |
| 00:36:51> 00:36:53: | Comply with SFDR at the at the longest.                              |
| 00:36:53> 00:36:56: | What were some of the challenges that you encountered when           |
| 00:36:56> 00:36:59: | you were trying to figure out how to meet that                       |
| 00:36:59> 00:37:00: | regulatory deadline?   |
| 00:37:01> 00:37:01: | Yeah.  |
| 00:37:01> 00:37:06: | I think because SFRSFDR was so new, there weren't examples           |
| 00:37:06> 00:37:10: | out there or best practices of what firms were doing                 |
| 00:37:10> 00:37:11: | in order to comply.  |
| 00:37:13> 00:37:16: | So in terms of Article 6, Article 6 is easy                          |
| 00:37:16> 00:37:17: | to comply with.  |
| 00:37:17> 00:37:19: | It means that you're not promoting sustainability.                   |
| 00:37:19> 00:37:22: | Article 8 means that you're promoting an environmental or social     |
| 00:37:22> 00:37:23: | characteristic.  |
| 00:37:23> 00:37:29: | And then Article 9 means you're investing in sustainable investment. |
| 00:37:29> 00:37:32: | And those investments or some of those investments are aligned       |
| 00:37:32> 00:37:36: | with the EU taxonomy definition of sustainable investing.            |
| 00:37:36> 00:37:40: | So I think that it was a huge undertaking to                         |
| 00:37:40> 00:37:42: | get to where we got to.  |
| 00:37:42> 00:37:46: | I think the real estate market is still trying to                    |
| 00:37:46> 00:37:50: | figure out how to comply with Article 8 funds.                       |
| 00:37:50> 00:37:53: | I think a lot of investment managers are shying away                 |
| 00:37:53> 00:37:54: | from Article 9 funds.  |
| 00:37:55> 00:37:59: | That you taxonomy has a written definition around the environmental  |
| 00:37:59> 00:38:03: | aspects, but they have not yet written the definitions around        |
| 00:38:03> 00:38:05: | the social aspects.  |
| 00:38:05> 00:38:08: | But what we are seeing is that there are some                        |
| 00:38:08> 00:38:11: | real estate funds that are claiming Article 9 under the              |
| 00:38:11> 00:38:12: | social.  |
| 00:38:12> 00:38:16: | So I think that leaves some risk on the table.                       |
| 00:38:17> 00:38:19: | But you know, to say all of this is as                               |
| 00:38:19> 00:38:23: | the real estate investment manager, we've really had to, you         |
| 00:38:23> 00:38:27: | know, keep our eyes open with the various regulations going          |
| 00:38:27> 00:38:30: | on And to talk a little bit about, you know,                         |

| 00:38:30> 00:38:34: | how we're trying to assess climate risk in particular.          |
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| 00:38:34> 00:38:36: | And to some of the points that were made earlier                |
| 00:38:37> 00:38:39: | around, you can't just look at the data itself.                 |
| 00:38:39> 00:38:42: | And it's not just about disclosure, but it's about the          |
| 00:38:43> 00:38:44: | overall landscape.  |
| 00:38:44> 00:38:48: | You know, 10 years ago, investment managers were talking about  |
| 00:38:48> 00:38:49: | energy efficiency.  |
| 00:38:50> 00:38:53: | They weren't talking about physical climate risk and that's one |
| 00:38:54> 00:38:57: | of the reasons why we started this ULI Heitman series           |
| 00:38:57> 00:39:00: | and our first report of 2019 of how our leading                 |
| 00:39:00> 00:39:03: | investment managers looking at physical climate risk and the US |
| 00:39:03> 00:39:06: | and a lot of the models around the world related                |
| 00:39:06> 00:39:09: | to climate, we're all historical looking.                       |
| 00:39:09> 00:39:12: | And so if we're basing our decisions on those historical        |
| 00:39:13> 00:39:15: | databases, are we making the right decisions?                   |
| 00:39:15> 00:39:19: | And the in the US in particular, a lot of                       |
| 00:39:19> 00:39:22: | the flood maps were binary in nature.                           |
| 00:39:22> 00:39:24: | You're either in a flood zone or out of a                       |
| 00:39:24> 00:39:27: | flood zone again, and it's historical looking.                  |
| 00:39:27> 00:39:28: | So we didn't feel like we had the best data                     |
| 00:39:28> 00:39:29: | sets available.   |
| 00:39:29> 00:39:32: | So I think that we're trying to piece by piece                  |
| 00:39:32> 00:39:36: | peel back the layer of, yes, there's climate risk, there's      |
| 00:39:36> 00:39:40: | physical climate risk, there's transition climate risk.         |
| 00:39:40> 00:39:42: | How is that going to impact our portfolio?                      |
| 00:39:42> 00:39:44: | What are those levers?  |
| 00:39:44> 00:39:46: | Okay, it's not just about the building, but you know,           |
| 00:39:46> 00:39:49: | our second report was around the market because you can         |
| 00:39:49> 00:39:51: | have a building that's not exposed to flooding, but it's        |
| 00:39:51> 00:39:53: | in a market that's exposed to flooding.                         |
| 00:39:53> 00:39:56: | So do you want your building to be the only                     |
| 00:39:56> 00:39:58: | building that's standing, but you need a boat to get            |
| 00:39:58> 00:39:59: | to it.  |
| 00:39:59> 00:40:01: | So I think that that's where, you know, you have                |
| 00:40:01> 00:40:03: | to kind of continuously peel back the layers.                   |
| 00:40:03> 00:40:05: | And our third report was on climate migration.                  |
| 00:40:05> 00:40:09: | So trying to figure out where are people moving and             |
| 00:40:09> 00:40:13: | are people taking climate risks into account with their move    |
| 00:40:13> 00:40:13: | decisions.  |
| 00:40:13> 00:40:16: | And we did this study during the pandemic and we                |

| 00:40:16> 00:40:18: | saw a lot of people are moving to Florida.  |
|---------------------|---|
| 00:40:18> 00:40:20: | So that was kind of against what?   |
| 00:40:21> 00:40:24: | We thought would occur if people were taking climate risk                             |
| 00:40:24> 00:40:26: | as the number one factor.   |
| 00:40:26> 00:40:28: | But we realized that people were taking a number of                                   |
| 00:40:28> 00:40:29: | factors into account.   |
| 00:40:29> 00:40:32: | They're taking into account cost of living, quality of life.                          |
| 00:40:33> 00:40:35: | And I they were also banking on the fact that   |
| 00:40:35> 00:40:38: | they could always get insurance at a certain rate.                                    |
| 00:40:38> 00:40:41: | So at what point do do people living in areas   |
| 00:40:41> 00:40:44: | that are at risk not be able to get insurance   |
| 00:40:44> 00:40:48: | or their quality of life because they have to evacuate                                |
| 00:40:48> 00:40:51: | changes to the fact that they make a different decision                               |
| 00:40:51> 00:40:52: | on where to live.   |
| 00:40:53> 00:40:55: | So I think that you know, overall kind of what  |
| 00:40:55> 00:40:58: | what this is saying is, is that this is a   |
| 00:40:58> 00:41:00: | complex picture and you have to look at it in   |
| 00:41:00> 00:41:02: | a systems way of thinking about things.   |
| 00:41:05> 00:41:06: | That's great and very true too.   |
| 00:41:07> 00:41:09: | l on a kid took me back to 2015 and   |
| 00:41:09> 00:41:13: | I was I was thinking about the Paris climate agreement,                               |
| 00:41:13> 00:41:15: | what the regulatory landscape looked like.  |
| 00:41:15> 00:41:20: | Back then before Paris, we relied on voluntary reporting standards.                   |
| 00:41:20> 00:41:24: | We already had seen an emergence of green building certification                      |
| 00:41:24> 00:41:28: | standards like lead or energy performance standards like<br>Energy Star               |
| 00:41:28> 00:41:31: | in the US or neighbors in Australia.  |
| 00:41:32> 00:41:36: | We had green building certifications like I believe it's Casby                        |
| 00:41:36> 00:41:37: | and DVJ in Japan.   |
| 00:41:38> 00:41:42: | Now that it's 2023 and we have this tremendous regulatory                             |
| 00:41:42> 00:41:45: | ecosystem that's very different than 2015.  |
| 00:41:45> 00:41:47: | What do you both think is going to be the   |
| 00:41:47> 00:41:50: | role of those green building certifications in this, in this                          |
| 00:41:50> 00:41:50: | new landscape?  |
| 00:41:55> 00:41:56: | Laura, do you want to start?  |
| 00:41:56> 00:41:57: | Sure, I'll start.   |
| 00:41:58> 00:42:01: | So you know, I do think that operational certifications are                           |
| 00:42:01> 00:42:06: | important, especially where there are benchmarking requirements, local regulations in |
| 00:42:06> 00:42:09: | place or if there are regulations that you have to                                    |
| 00:42:09> 00:42:12: | meet certain energy efficiency standards that a number of the                         |

| 00:42:12> 00:42:17: | sustainability certifications are essentially best practices for how property management |
|---------------------|--|
| 00:42:17> 00:42:19: | should manage an asset.  |
| 00:42:19> 00:42:22: | So I think it's a good proxy, a good way   |
| 00:42:22> 00:42:26: | to make sure that the building stays relevant for the                                    |
| 00:42:26> 00:42:30: | marketplace and stays outside of any kind of regulatory fines                            |
| 00:42:30> 00:42:33: | or ability to you know impacts of ability to lease                                       |
| 00:42:33> 00:42:34: | the asset.   |
| 00:42:38> 00:42:38: | Yeah.  |
| 00:42:38> 00:42:41: | And just to add, maybe, you know, I'm not a  |
| 00:42:41> 00:42:45: | real estate specialist, but but just maybe a little higher                               |
| 00:42:45> 00:42:46: | abstraction.   |
| 00:42:49> 00:42:54: | What many of those designations are for many investors?                                  |
| 00:42:54> 00:42:56: | Are there signals?   |
| 00:42:56> 00:43:00: | They're sort of like a heuristic of understanding where.                                 |
| 00:43:00> 00:43:04: | A certain asset or their owner what, what their intentions                               |
| 00:43:04> 00:43:08: | are, what their values are, what their beliefs are, and                                  |
| 00:43:08> 00:43:10: | what direction of travel they may want to go.  |
| 00:43:11> 00:43:15: | I think there is a risk over time that what  |
| 00:43:15> 00:43:18: | a lot of those standards were meant to do as   |
| 00:43:18> 00:43:23: | a signaling value sort of just becomes mainstream practice                               |
|                     | when   |
| 00:43:23> 00:43:26: | it comes to the real estate space.   |
| 00:43:26> 00:43:29: | And so then the I what I'm looking out for   |
| 00:43:29> 00:43:30: | is what comes next.  |
| 00:43:31> 00:43:35: | And what are the signals that investors are looking for                                  |
| 00:43:35> 00:43:38: | to say you are really at the cutting edge of   |
| 00:43:38> 00:43:42: | green buildings or of you know, highly efficient buildings and                           |
| 00:43:42> 00:43:43: | so on and so forth.  |
| 00:43:44> 00:43:46: | And so over time, I can actually see a lot   |
| 00:43:46> 00:43:51: | of those designations decreasing in value just because the world                         |
| 00:43:51> 00:43:54: | is going to be accelerating its efforts on.  |
| 00:43:54> 00:43:57: | Energy transition and climate transition very quickly over the next                      |
| 00:43:57> 00:43:58: | few years.   |
| 00:43:58> 00:44:00: | I think it's true by the way with ESG in   |
| 00:44:01> 00:44:04: | general, five years ago, something that you could do as                                  |
| 00:44:04> 00:44:06: | a way to indicate that you're at the, you know,  |
| 00:44:06> 00:44:07: | leader of the pack.  |
| 00:44:07> 00:44:10: | Now it's just basic common practices and I think that's                                  |
| 00:44:11> 00:44:13: | going to happen in the real estate space.  |
| 00:44:13> 00:44:14: | It's going to happen all across.   |

| 00.44.45 > 00.44.47.                       | The simple state with the tensor of the tensor in the second state |
|--|--|
| 00:44:15> 00:44:17:                        | The industry, which is a good thing, I mean it's                   |
| 00:44:17> 00:44:19:<br>00:44:20> 00:44:22: | a good, it's sort of where we wanted to get                        |
| 00:44:22> 00:44:22:<br>00:44:22> 00:44:24: | to, but the signaling value of saying, oh, I'm the                 |
|  | lead certified or I'm all this stuff I think might                 |
| 00:44:25> 00:44:25:<br>00:44:27> 00:44:30: | actually decline.  |
|  | So lead becomes code and well, a green store will                  |
| 00:44:30> 00:44:31:                        | always be a green store.   |
| 00:44:31> 00:44:33:                        | That means you're the top 25% in your asset.                       |
| 00:44:34> 00:44:34:                        | But.   |
| 00:44:36> 00:44:38:                        | The bar will probably rise.  |
| 00:44:39> 00:44:42:                        | Yes, I could see a world where lead or a                           |
| 00:44:42> 00:44:45:                        | neighbor's score becomes closer to code.                           |
| 00:44:45> 00:44:51:                        | In the future, questions start rolling from audience members.      |
| 00:44:51> 00:44:53:                        | I think this one's probably best for Laura, but I'm                |
| 00:44:54> 00:44:55:                        | going to ask it to both panelists.                                 |
| 00:44:55> 00:44:56:                        | How long?  |
| 00:44:56> 00:44:57:                        | Actually, no.  |
| 00:44:57> 00:44:58:                        | Anika, this might be a good question for you.                      |
| 00:44:58> 00:45:01:                        | How long does it take to go from zero to                           |
| 00:45:01> 00:45:03:                        | a quality TCFD report?   |
| 00:45:03> 00:45:04:                        | Like what's a reasonable?  |
| 00:45:05> 00:45:09:                        | Amount of time for say a regulator to expect somebody              |
| 00:45:09> 00:45:13:                        | who hasn't done ESG tracking reporting to produce a high           |
| 00:45:13> 00:45:14:                        | quality TCFD report.   |
| 00:45:16> 00:45:20:                        | There's no just very quickly I there there shouldn't be            |
| 00:45:20> 00:45:23:                        | a long time these days you you could do it                         |
| 00:45:23> 00:45:26:                        | in a year you can do it in less than                               |
| 00:45:26> 00:45:30:                        | a year because this is now pretty well worn process.               |
| 00:45:30> 00:45:32:                        | We sort of know how to do this we the                              |
| 00:45:32> 00:45:34:                        | Tcfd's been around for.  |
| 00:45:34> 00:45:38:                        | Guys, it's it's, it's what, October 5th, 2023?                     |
| 00:45:38> 00:45:41:                        | I mean, you know, Mark Carney and Mike Bloomberg were              |
| 00:45:41> 00:45:43:                        | talking about this in 2015.  |
| 00:45:43> 00:45:46:                        | I remember I was going to their conferences in New                 |
| 00:45:46> 00:45:48:                        | York and London around this.                                       |
| 00:45:48> 00:45:50:                        | So I I my, my humble point is that I                               |
| 00:45:50> 00:45:54:                        | don't have much patience for folks who say, oh, it's               |
| 00:45:54> 00:45:57:                        | a journey and it takes a long time and there's                     |
| 00:45:57> 00:45:59:                        | a lot of expertise.  |
| 00:45:59> 00:46:02:                        | There are a lot of good examples across sectors.                   |
| 00:46:04> 00:46:06:                        | I think more and more is an indication of how                      |
| 00:46:06> 00:46:09:                        | serious is a company or a developer in trying to                   |
|  |  |

| 00:46:09> 00:46:11:<br>00:46:11> 00:46:14:<br>00:46:16> 00:46:18:<br>00:46:18> 00:46:20:<br>00:46:20> 00:46:21:<br>00:46:23> 00:46:24:<br>00:46:23> 00:46:27:<br>00:46:27> 00:46:31:<br>00:46:31> 00:46:33:<br>00:46:37> 00:46:37:<br>00:46:45> 00:46:45:<br>00:46:45> 00:46:45:<br>00:46:54> 00:46:57:<br>00:46:58> 00:46:57:<br>00:46:58> 00:47:03:<br>00:47:03> 00:47:03:<br>00:47:03> 00:47:04:<br>00:47:01> 00:47:12:<br>00:47:11> 00:47:12:<br>00:47:14> 00:47:12:<br>00:47:18> 00:47:13:<br>00:47:28> 00:47:22:<br>00:47:30> 00:47:35:<br>00:47:31> 00:47:35:<br>00:47:35> 00:47:35:<br>00:47:38> 00:47:35:<br>00:47:38> 00:47:45:<br>00:47:41> 00:47:45:<br>00:47:41> 00:47:45:<br>00:47:45> 00:47:55:<br>00:47:51> 00:47:55:<br>00:47:54> 00:47:55:<br>00:47:55> 00:47:55:<br>00:47:54> 00:47:55:<br>00:47:54> 00:47:55:<br>00:47:54> 00:47:55:<br>00:47:54> 00:47:55:<br>00:47:55> 00:47:55:<br>00:47:55> 00:47:55:<br>00:47:55> 00:47:55:<br>00:47:55> 00:47:55:<br>00:47:55> 00:47:55:<br>00:47:55> 00:47:55:<br>00:47:55> 00:47:55:<br>00:47: | actually do this correctly and do you hire the right<br>people and do you pay for the right expertise and<br>do you actually care about this?<br>But my view, Lauren, maybe maybe you have a slightly<br>different view, but it's that you know, you should be<br>able to do this in the year.<br>I would agree.<br>I think that TCFD is kind of a baseline standard<br>that companies should be able to do if you're just<br>beginning on the journey.<br>And especially as you know, I don't like showing or<br>pointing to any particular regulation because they are in flux.<br>I do think that companies really need to own their<br>own processes that are able to reply to multiple different<br>regulations that may come out or may change.<br>Another audience question is about.<br>Green premiums, have you seen a green premium in the<br>market?<br>How big are they usually?<br>What's the percentage for a green premium?<br>I'll throw it out to you guys and then I'll<br>I'll share what we've learned from Uli.<br>Billy, I think you probably have the best numbers since<br>you have done a study on that.<br>But we are seeing that there are green premiums in<br>particular markets, Europe being one of them.<br>Yeah, we haven't done a comprehensive study.<br>It is hard to do.<br>It is hard to figure out market comps and benchmarks<br>and capture a a time where you can prove a<br>green premium across assets in a market.<br>Costar did a fantastic study of Class A office primarily<br>in the United States of America back in 2012.<br>They found that there was a 5 to 8% green<br>premium for LEED certified buildings and there was.<br>Something almost comparable to that to Energy Star |
|---|--|
| 00:47:54> 00:47:58:<br>00:47:58> 00:48:01:  | Something almost comparable to that to Energy Star<br>certification and<br>that green premium was created because those building   |
| 00:48:01> 00:48:05:   | have lot<br>lower operating expenses because they have better energy,  |
|   | water and  |
| 00:48:05> 00:48:06:   | waste efficiency.  |
| 00:48:07> 00:48:10:   | That in turn led to you know comparable market rents   |

| 00:48:10> 00:48:14: | but lower vacancy rates and lower turnover of tenants.            |
|---------------------|---|
| 00:48:14> 00:48:18: | So that's what they attributed that green premium to.             |
| 00:48:18> 00:48:21: | So you're not getting more in rent, but your building             |
| 00:48:21> 00:48:21: | is cheaper to run.  |
| 00:48:22> 00:48:26: | So you're now operating income is improved, your vacancy rate     |
| 00:48:26> 00:48:30: | is lower because people like that building and it's marketable    |
| 00:48:30> 00:48:31: | asset.  |
| 00:48:31> 00:48:35: | And then finally people stay because they they like how           |
| 00:48:35> 00:48:36: | the building is operating.  |
| 00:48:37> 00:48:40: | And I think that's it's it becomes more qualitative               |
| 00:48:40> 00:48:43: | and I did studies when I was the head of                          |
| 00:48:43> 00:48:46: | sustainability for real estate and investment trust, we looked at |
| 00:48:46> 00:48:48: | industrial buildings.   |
| 00:48:48> 00:48:50: | The best way to capture that green premium was to                 |
| 00:48:50> 00:48:53: | figure out how much we were lowering the operating expenses       |
| 00:48:53> 00:48:53: | of our tenants.   |
| 00:48:55> 00:48:59: | That also helped to reduce vacancy rate so.                       |
| 00:49:00> 00:49:02: | I'm I'm happy to follow up with the person who                    |
| 00:49:02> 00:49:04: | asked the question because I know there are a couple              |
| 00:49:04> 00:49:05: | of more recent studies out there.                                 |
| 00:49:06> 00:49:09: | Usually they focus on one discrete market and one asset           |
| 00:49:09> 00:49:12: | class within that market because that's the only way to           |
| 00:49:12> 00:49:14: | get an apples to apples benchmark.                                |
| 00:49:15> 00:49:17: | We did have a question that I didn't get to                       |
| 00:49:17> 00:49:20: | answer fully on our webinar this morning about one of             |
| 00:49:20> 00:49:22: | our panelists said show me the brown discount.                    |
| 00:49:22> 00:49:26: | I want to be able to study how buildings are                      |
| 00:49:26> 00:49:27: | losing value.   |
| 00:49:27> 00:49:30: | Especially if it's related to this transition risk that the       |
| 00:49:30> 00:49:33: | thing that we thought would be an interesting study on            |
| 00:49:33> 00:49:36: | that brown discount would be Local Law 97 in New                  |
| 00:49:36> 00:49:36: | York.   |
| 00:49:37> 00:49:39: | Because Local Law 97 said if you cannot meet our                  |
| 00:49:39> 00:49:42: | greenhouse gas standard, you will be fined.                       |
| 00:49:42> 00:49:44: | And here is the fine amount based on how far                      |
| 00:49:44> 00:49:46: | below you the standard you fall.                                  |
| 00:49:46> 00:49:49: | And this fine will be levied on you in 2024.                      |
| 00:49:49> 00:49:52: | So if you're transacting an acid in New York and                  |
| 00:49:52> 00:49:54: | you know that acid is not going to be able                        |
| 00:49:54> 00:49:55: | to meet the standard.   |

| 00:49:55> 00:49:58: | You have to price the cost of that fine into                                       |
|---------------------|--|
| 00:49:58> 00:50:00: | the total operating expenses of that building.                                     |
| 00:50:00> 00:50:02: | It affects NOI.  |
| 00:50:02> 00:50:03: | It's a creative devalue.   |
| 00:50:03> 00:50:08: | But New York recently has somewhat relaxed the deadline                            |
|                     | and  |
| 00:50:09> 00:50:13: | who will be fined according to these standards.                                    |
| 00:50:14> 00:50:16: | So it's it's probably not going to be the test                                     |
| 00:50:16> 00:50:19: | case that we thought it could be at the same                                       |
| 00:50:19> 00:50:19: | time.  |
| 00:50:20> 00:50:22: | I am sure that if we dug through real estate                                       |
| 00:50:22> 00:50:25: | transactions at high level assets in New York, we would                            |
| 00:50:25> 00:50:28: | see savvy investment managers figuring out a way to price                          |
| 00:50:28> 00:50:31: | the cost of that fine into those buildings, which essentially                      |
| 00:50:31> 00:50:32: | would be a brown discount.   |
| 00:50:33> 00:50:36: | I think it'll be very interesting as places like the                               |
| 00:50:36> 00:50:37: | Netherlands.   |
| 00:50:37> 00:50:41: | And Germany and the UK start to deal with assets                                   |
| 00:50:41> 00:50:45: | that cannot meet their standards and cannot be upgraded cost                       |
| 00:50:45> 00:50:51: | effectively to meet ever tightening energy efficiency and environmental standards. |
| 00:50:51> 00:50:54: | Because in those markets, if you can't meet that standard,                         |
| 00:50:54> 00:50:56: | eventually you will not be able to have a certificate                              |
| 00:50:57> 00:50:59: | of occupancy for those buildings if you can't have a                               |
| 00:50:59> 00:51:00: | certificate of occupancy.  |
| 00:51:01> 00:51:03: | You can't have debt.   |
| 00:51:03> 00:51:06: | You may lose your tenants because they'll have cause to                            |
| 00:51:06> 00:51:08: | break their lease and you can't insure your property.                              |
| 00:51:08> 00:51:12: | So those properties will quickly become worth very much less                       |
| 00:51:12> 00:51:15: | than they were before they experienced that change.                                |
| 00:51:15> 00:51:18: | So it'll be interesting to see if the policymakers actually                        |
| 00:51:18> 00:51:22: | are able to follow through on that action, if buildings                            |
| 00:51:22> 00:51:25: | truly can't cost effectively upgrade and what that'll do to                        |
| 00:51:25> 00:51:29: | sort of drive home this concept of a brown discount.                               |
| 00:51:31> 00:51:34: | Really, if I can just underline the point that you                                 |
| 00:51:34> 00:51:36: | make there, which is a point that we, we say                                       |
| 00:51:36> 00:51:39: | to our clients all the time, which is change is                                    |
| 00:51:39> 00:51:42: | not happening in a linear way when it comes to                                     |
| 00:51:42> 00:51:42: | this topic.  |
| 00:51:42> 00:51:46: | It's actually happening with step changes with exponential functions and           |
| 00:51:46> 00:51:47: | so on and so forth.  |

| 00:51:48> 00:51:51: | And if you're a risk manager at an investment firm                                    |
|---------------------|---|
| 00:51:51> 00:51:53: | or at a bank, or you had a pension fund   |
| 00:51:54> 00:51:56: | or whatever may be on the call, you have to   |
| 00:51:56> 00:51:59: | make sure that your fund managers understand that.                                    |
| 00:52:00> 00:52:04: | , ,   |
| 00:52:00> 00:52:04: | Like to your point about regulation in the Netherlands, that's                        |
| 00:52:04> 00:52:08: | not going to lead to like a one or 2%   |
| 00:52:10> 00:52:10: | depreciation of the value that could lead to a 50%                                    |
|                     | depreciation of the value of property.  |
| 00:52:13> 00:52:15: | And I I don't I think that that way of  |
| 00:52:15> 00:52:19: | thinking is just largely not there when it comes to                                   |
| 00:52:19> 00:52:19: | climate.  |
| 00:52:20> 00:52:23: | A similarly on the opportunity side, you know this isn't                              |
| 00:52:23> 00:52:27: | real estate related necessarily, but but it's linked which is                         |
| 00:52:27> 00:52:29: | you know we're starting to now see.   |
| 00:52:30> 00:52:35: | S curve adoption of certain energy transition technologies, right.                    |
| 00:52:35> 00:52:37: | It's not just happening all we have a little bit                                      |
| 00:52:37> 00:52:38: | more solar.   |
| 00:52:38> 00:52:43: | We we're now having exponentially more solar, exponentially more wind,                |
| 00:52:43> 00:52:49: | exponentially more electric vehicles, exponentially more heat pumps and exponentially |
| 00:52:49> 00:52:52: | more battery storage and that can that can get investors                              |
| 00:52:52> 00:52:55: | caught up wrong footed very quickly.  |
| 00:52:55> 00:52:58: | And so one of the things just to echo your  |
| 00:52:58> 00:53:01: | point is this notion of tipping points is very important                              |
| 00:53:01> 00:53:05: | both negative and positive tipping points and relatedly this notion                   |
| 00:53:05> 00:53:09: | of exponential change and how that can impact your investment.                        |
| 00:53:09> 00:53:12: | And those are two mental models that we just we                                       |
| 00:53:12> 00:53:15: | we hope more investors will use when it comes to                                      |
| 00:53:15> 00:53:17: | anything climate related.   |
| 00:53:19> 00:53:20: | Yeah, definitely.   |
| 00:53:21> 00:53:24: | Laura, there's a question about physical risk discount in the                         |
| 00:53:24> 00:53:26: | chat and I thought this might be an opportunity for                                   |
| 00:53:26> 00:53:29: | you to share a little bit of what you're learning                                     |
| 00:53:29> 00:53:30: | about insurance markets.  |
| 00:53:32> 00:53:35: | Question about, you know, what is the physical risk discount                          |
| 00:53:35> 00:53:38: | at the asset level and do you have any data   |
| 00:53:38> 00:53:42: | on good versus bad coastal project valuations in a similar                            |
| 00:53:42> 00:53:42: | location?   |
| 00:53:44> 00:53:46: | Yeah, so that can be a big question.  |
|                     |   |

| 00:53:46> 00:53:49: | In terms of the discount at the asset level, it              |
|---------------------|--|
| 00:53:49> 00:53:52: | depends on what risk that property is exposed to.            |
| 00:53:52> 00:53:57: | Is it exposed to heat stress, water stress, hurricanes,      |
|                     | typhoons   |
| 00:53:57> 00:53:58: | or flooding.   |
| 00:53:58> 00:54:00: | So let's just call flooding.                                 |
| 00:54:00> 00:54:04: | If the property is exposed to flooding and there there       |
| 00:54:04> 00:54:08: | need, there may need to be capital expenditure to help       |
| 00:54:08> 00:54:10: | protect it from flooding.                                    |
| 00:54:10> 00:54:13: | So then there could be that discount of additional capital   |
| 00:54:13> 00:54:15: | if if you're going to buy that asset that you                |
| 00:54:15> 00:54:17: | have to layer into the underwriting assumptions.             |
| 00:54:17> 00:54:21: | The other way that we look at modeling climate risk          |
| 00:54:21> 00:54:24: | into our analysis is looking at the insurance rates over     |
| 00:54:24> 00:54:25: | time.  |
| 00:54:25> 00:54:28: | And not just a linear, you know, 3% increase over            |
| 00:54:28> 00:54:32: | time, but you know we've seen insurance rates over the       |
| 00:54:33> 00:54:36: | past few years and in particular in the past year            |
| 00:54:36> 00:54:40: | double even for insurance that had no claims against it      |
| 00:54:40> 00:54:45: | and insurance that did have claims it was significantly more |
| 00:54:45> 00:54:46: | double, triple.  |
| 00:54:47> 00:54:49: | And we also are seeing that insurers are pulling out         |
| 00:54:49> 00:54:50: | of particular markets.                                       |
| 00:54:50> 00:54:53: | So you have to be able to think about that                   |
| 00:54:53> 00:54:56: | if you're going to buy an asset in a risky                   |
| 00:54:56> 00:54:56: | place.   |
| 00:54:57> 00:54:59: | And then lastly how we think about it is how                 |
| 00:54:59> 00:55:00: | long is our hold.  |
| 00:55:01> 00:55:04: | Are we A5 year holder or 10 year holder or                   |
| 00:55:04> 00:55:07: | a longer and what do we think the markets going              |
| 00:55:07> 00:55:09: | to be when we exit that asset.                               |
| 00:55:10> 00:55:13: | So we'll do an analysis to say that you know                 |
| 00:55:13> 00:55:17: | under perfect conditions no risk it would the value would    |
| 00:55:17> 00:55:21: | be you know a certain number and now layer on                |
| 00:55:21> 00:55:23: | this level of risk and uncertainty.                          |
| 00:55:23> 00:55:25: | When we go to sell the asset, we're going to                 |
| 00:55:26> 00:55:28: | discount how much we think we can sell it on                 |
| 00:55:28> 00:55:30: | the back end and then that's how we try to                   |
| 00:55:30> 00:55:33: | really price it into the deal and see where they             |
| 00:55:33> 00:55:36: | were still hitting our return on investment that we want     |
| 00:55:36> 00:55:37: | to hit.  |
| 00:55:37> 00:55:40: | So it's really about pricing it it back into the             |
|                     |  |

| 00:55:40> 00:55:40: | deal.   |
|---------------------|---|
| 00:55:41> 00:55:43: | But I think that one thing that's going to catch              |
| 00:55:44> 00:55:46: | a lot of people off guard is the fact that                    |
| 00:55:46> 00:55:49: | you know insurance is not just going up literally.            |
| 00:55:49> 00:55:52: | You know certain insurers are pulling out of markets and      |
| 00:55:52> 00:55:55: | insurance is going up dramatically in certain places.         |
| 00:55:56> 00:55:59: | And if you don't have insurance and you're you're banking     |
| 00:55:59> 00:56:02: | on getting a loan, so you're you need a loan                  |
| 00:56:02> 00:56:05: | for that asset, you're not going to be able to                |
| 00:56:05> 00:56:09: | get a loan because most banks, most lenders require insurance |
| 00:56:09> 00:56:11: | on the property that they'll lend to.                         |
| 00:56:12> 00:56:14: | So I think that this has a lot of domino                      |
| 00:56:14> 00:56:18: | effects that could occur and I I just don't think             |
| 00:56:18> 00:56:20: | it's going to be linear.                                      |
| 00:56:20> 00:56:23: | We we've only been thinking about physical climate risk in    |
| 00:56:23> 00:56:26: | the real estate market and taking it seriously for the        |
| 00:56:26> 00:56:28: | past five or six years.                                       |
| 00:56:28> 00:56:31: | So where are we going to be in another five                   |
| 00:56:31> 00:56:32: | or six years from now?  |
| 00:56:32> 00:56:35: | I think we're going to be a lot more sophisticated            |
| 00:56:35> 00:56:38: | investors and we're going to make different decisions.        |
| 00:56:38> 00:56:41: | So we have to think about the future and try                  |
| 00:56:41> 00:56:43: | to make those predictions now.                                |
| 00:56:45> 00:56:46: | Yeah, it reminds me.  |
| 00:56:46> 00:56:51: | My earliest pro forma Excel files said that taxes would       |
| 00:56:51> 00:56:54: | go up 1%, utilities would go up 1.5%.                         |
| 00:56:55> 00:56:58: | Insurance went up 2% and the cost of property management      |
| 00:56:58> 00:57:01: | and labor went up 3% and those cells were locked.             |
| 00:57:01> 00:57:03: | Like I couldn't even change them, right?                      |
| 00:57:04> 00:57:06: | We got to unlock those cells because those are much           |
| 00:57:06> 00:57:09: | more dynamic numbers than they've ever been before in a       |
| 00:57:09> 00:57:10: | real estate investment analysis.                              |
| 00:57:13> 00:57:15: | If it's okay with everybody, I think I'm going to             |
| 00:57:15> 00:57:16: | leave it there.   |
| 00:57:17> 00:57:20: | I'd really like to thank our panelists, Laura and Annika      |
| 00:57:20> 00:57:21: | for their contributions today.                                |
| 00:57:21> 00:57:24: | I'd like to thank everybody for joining us for this           |
| 00:57:24> 00:57:25: | webinar.  |
| 00:57:25> 00:57:29: | You can find a link to the report changes coming              |
| 00:57:29> 00:57:33: | at knowledge.uli.org and I believe that the team at ULI       |
| 00:57:33> 00:57:36: | will be sending you a survey.                                 |

| 00:57:36> 00:57:39: | Please let us know what you thought of this webinar.     |
|---------------------|--|
| 00:57:39> 00:57:43: | Good topic, great panelists, fantastic moderator.        |
| 00:57:44> 00:57:46: | Or if you have any constructive criticism or like to     |
| 00:57:46> 00:57:49: | see us tackle other topics in the future, please include |
| 00:57:49> 00:57:50: | that as well.  |
| 00:57:50> 00:57:51: | Thank you everybody so much.                             |
| 00:57:51> 00:57:53: | Have a great rest of your day.                           |
| 00:57:54> 00:57:54: | Bye.   |

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