

# Webinar

## Moderate-Income Rental Housing: A New Asset Class

Date: February 17, 2023

00:00:04 --> 00:00:07: Thank you all for joining us this afternoon. My name  
 00:00:07 --> 00:00:09: is Jane Hutton and I work with the ULI Twilligear  
 00:00:09 --> 00:00:12: Center for housing. As a note, this webinar will be  
 00:00:12 --> 00:00:15: recorded and available to view on demand on utilized  
 00:00:15 --> 00:00:18: knowledge  
 00:00:18 --> 00:00:21: Finder. After the fact. Before I turn it over to  
 00:00:21 --> 00:00:25: our panel, a few housekeeping notes if you're not familiar  
 00:00:25 --> 00:00:28: with us. The Trullinger Center for Housing integrates utilized  
 00:00:28 --> 00:00:30: wide-ranging  
 00:00:31 --> 00:00:34: housing activities to a program of work with three objectives  
 00:00:34 --> 00:00:35: to catalyze the production of housing.  
 00:00:36 --> 00:00:39: Provide thought leadership on the housing industry and  
 00:00:39 --> 00:00:42: inspire a  
 00:00:42 --> 00:00:46: broader commitment to housing.  
 00:00:46 --> 00:00:49: It's part of our work. We organized the annual Housing  
 00:00:49 --> 00:00:53: Opportunity Conference. The conference is one of the  
 00:00:54 --> 00:00:57: nation's premier  
 00:00:57 --> 00:01:01: meetings of the residential development, lending, investing  
 00:01:01 --> 00:01:03: and policy community  
 00:01:04 --> 00:01:06: brings together a diverse mix of private and nonprofit real  
 00:01:06 --> 00:01:11: estate developers, public officials, urban and regional  
 00:01:11 --> 00:01:15: planners, housing advocates,  
 architects, investors and lenders with one common goal to  
 expand  
 housing opportunities in their communities. Conference and  
 tour tickets are  
 selling quickly, so I recommend that you book soon. More  
 information can be found on our website at housing.  
 Conference.uli.org and you can also e-mail housing at uli.org  
 with  
 any questions. So without further ado, like to introduce David

00:01:16 --> 00:01:20: Steinwedell of Affordable Central TX to present the work that  
00:01:20 --> 00:01:24: they're doing and also discuss the findings of a recent  
00:01:24 --> 00:01:27: report, the link to which I've just put in the  
00:01:27 --> 00:01:28: chat.  
00:01:29 --> 00:01:31: I'm going to go ahead and pull up some slides  
00:01:31 --> 00:01:33: and David, you can take it away.  
00:01:33 --> 00:01:38: Awesome. Well, thank you Jane and welcome everybody. I  
00:01:38 --> 00:01:41: appreciate  
00:01:41 --> 00:01:46: you spending time today on it's we've got over 700  
00:01:46 --> 00:01:49: and attendees who signed up for this. So obviously  
00:01:49 --> 00:01:53: affordable  
00:01:53 --> 00:01:57: housing is a topic of of interest and you know  
00:01:57 --> 00:02:00: kind of across the you know across the spectrum of  
00:02:00 --> 00:02:05: folks and we're discussing today report that was put together  
00:02:05 --> 00:02:10: on moderate income rental housing.  
00:02:10 --> 00:02:15: I'm with the fordable Central TX and we're the sponsor  
00:02:15 --> 00:02:19: of the Austin Housing Conservancy Fund, which is a private  
00:02:19 --> 00:02:25: equity fund that is run by a nonprofit to preserve  
00:02:25 --> 00:02:28: moderate income and workforce housing in Central TX.  
00:02:28 --> 00:02:34: One of our supporters has been Wells Fargo, and Wells  
00:02:34 --> 00:02:40: Fargo provided a grant to work with.  
00:02:40 --> 00:02:43: The authors of this report and and to address, you  
00:02:43 --> 00:02:48: know, the use of of institutional and other capital to  
00:02:48 --> 00:02:52: invest in this type of housing.  
00:02:52 --> 00:02:55: You know, as mentioned, there's a link to the report  
00:02:55 --> 00:03:00: in the chat that can be downloaded off of our  
00:03:00 --> 00:03:04: off of our website, but I think the the you  
00:03:04 --> 00:03:08: know.  
00:03:08 --> 00:03:12: Behind the idea of of moderate income housing is is  
00:03:12 --> 00:03:17: the is the concept that a portability isn't just limited  
00:03:17 --> 00:03:22: now to you know those that are homeless or in  
00:03:22 --> 00:03:25: poverty or at low and very low income levels. But  
00:03:25 --> 00:03:26: it's actually now expanded to, you know, areas that  
00:03:26 --> 00:03:31: traditionally  
00:03:31 --> 00:03:36: could afford housing, rental housing and for sale housing that  
00:03:36 --> 00:03:40: are now being burdened by spending more than 30% of  
00:03:40 --> 00:03:47: their.  
00:03:47 --> 00:03:51: On their income, on, on housing. And now that's moved  
00:03:51 --> 00:03:56: into you know what's now defined as moderate income, 60  
00:03:56 --> 00:04:00: to 80% of of of median family income. But probably  
00:04:00 --> 00:04:07: more importantly that's where teachers and 1st responders  
00:04:07 --> 00:04:14: and medical  
00:04:14 --> 00:04:21: workers and entry level employees all are.

00:03:52 --> 00:03:55: Cohort of and all these folks are now being challenged  
00:03:55 --> 00:03:57: with their housing needs.

00:04:00 --> 00:04:03: I'm going to introduce the authors and then turn things  
00:04:03 --> 00:04:06: over to them. You know, first we have Mark Roberts,  
00:04:06 --> 00:04:09: who's a lecturer at the Cox School of Business and  
00:04:09 --> 00:04:13: Director of Research at the Folsom Real Estate Institute at  
00:04:13 --> 00:04:17: Southern Methodist University. And at Crow Holdings Capital  
is also,

00:04:17 --> 00:04:20: we have Jake Wegman, who is an associate professor and  
00:04:20 --> 00:04:23: the PhD program director in the Community and Regional  
planning  
00:04:24 --> 00:04:27: program within the School of Architecture at the University of  
00:04:27 --> 00:04:28: Texas at Austin.

00:04:30 --> 00:04:33: You know, these guys did fantastic work putting this report  
00:04:33 --> 00:04:36: together. Jake, I will turn it over to you.

00:04:37 --> 00:04:40: Thank you, David. And just before I turn it over  
00:04:40 --> 00:04:43: to, to, to our lead author Mark Roberts, just wanted  
00:04:43 --> 00:04:45: to say a quick thing about what do we call  
00:04:46 --> 00:04:49: this thing that we're going to be talking about today.

00:04:49 --> 00:04:52: It was actually something that we had a lot of  
00:04:52 --> 00:04:55: discussion about. You know there are a few different terms  
00:04:55 --> 00:04:58: out there that you hear and that we might argue  
00:04:58 --> 00:05:01: aren't maybe the best terms. One of them you hear  
00:05:01 --> 00:05:04: a lot is workforce housing. You know that's often used  
00:05:04 --> 00:05:07: to describe you know let's call it middle income.  
00:05:07 --> 00:05:11: Rental housing, the trouble with that is as everyone here  
00:05:11 --> 00:05:13: knows, is that there are a lot of people who  
00:05:13 --> 00:05:16: are making, you know, way down the income scale who  
00:05:16 --> 00:05:20: work and they just simply can't afford housing. So we  
00:05:20 --> 00:05:23: think that we, you know, we don't think that workforce  
00:05:23 --> 00:05:26: housing is really the right term anymore. Another one that  
00:05:27 --> 00:05:30: you hear is Noah or naturally occurring affordable housing,  
but  
00:05:30 --> 00:05:34: that's sometimes has connotations of sort of old or  
deteriorated  
00:05:34 --> 00:05:37: housing stock which is, you know, not.

00:05:37 --> 00:05:41: What we're talking about here today and then you'll finally  
00:05:41 --> 00:05:44: you also hear missing metal and the trouble with that  
00:05:45 --> 00:05:48: is that's often used to refer to small scale medium  
00:05:48 --> 00:05:52: density housing as opposed to middle income housing. So  
we  
00:05:52 --> 00:05:55: thought at the risk of coming up with the wrong  
00:05:55 --> 00:05:58: term, we would coin a phrase, it's very neutral and

00:05:58 --> 00:06:02: we're just simply calling the thing that we're talking about

00:06:02 --> 00:06:06: today moderate income rental housing or murder if you want

00:06:06 --> 00:06:07: acute acronym for it.

00:06:07 --> 00:06:10: But you know, of course we're completely open to to

00:06:11 --> 00:06:15: other and better suggestions for what we're talking about, but

00:06:15 --> 00:06:17: we do, we do think it was important to name

00:06:18 --> 00:06:20: it. So with that I'm going to turn it over

00:06:20 --> 00:06:23: to Mark to to to dive into the details here.

00:06:24 --> 00:06:28: Thank you, Jake, and hopefully everybody can hear me.

00:06:28 --> 00:06:31: Listen,

00:06:31 --> 00:06:35: I just want to give my thanks to to David

00:06:35 --> 00:06:39: Stein, Weddle and the team at affordable Central TX as

00:06:39 --> 00:06:42: well as the Wells Fargo Foundation and everybody there.

00:06:43 --> 00:06:46: They

00:06:46 --> 00:06:49: were terrific. They let Jake and me take the research

00:06:49 --> 00:06:53: wherever it would take us in terms of being objective

00:06:53 --> 00:06:54: about the question that they put to us and the

00:06:54 --> 00:06:58: question they put to us is does this category of

00:06:58 --> 00:07:03: housing this moderate?

00:07:03 --> 00:07:07: And can rental housing produce the type of total returns

00:07:07 --> 00:07:10: and performance characteristics that institutional investors

00:07:10 --> 00:07:14: are investors in general

00:07:14 --> 00:07:18: should consider as part of their portfolio? Well, to the

00:07:18 --> 00:07:21: best of my knowledge having worked at with Nate Creef

00:07:21 --> 00:07:25: over the years, Nate Creef is the National Council of

00:07:25 --> 00:07:29: Real Estate investment fiduciary. I wasn't Jake and I weren't

00:07:29 --> 00:07:33: really aware of any empirical evidence that looked at this

00:07:33 --> 00:07:36: category of housing and evaluated the the returns and.

00:07:36 --> 00:07:41: Risk and the correlation. So those are things that are

00:07:41 --> 00:07:46: very important to institutional investors. So we had to go

00:07:46 --> 00:07:51: ahead and develop an index of our own.

00:07:51 --> 00:07:56: And the question that the the team at Wells Fargo

00:07:56 --> 00:08:01: Foundation and Affordable Central Texas put to us was

00:08:01 --> 00:08:05: simply

00:08:05 --> 00:08:06: this, do the performance of buildings which offer a rent

00:08:06 --> 00:08:10: level which somebody earning 80% or less of area, median

00:08:10 --> 00:08:13: family income or area family income or median family income

00:08:13 --> 00:08:16: can afford. So why don't we go to the 4th

00:08:16 --> 00:08:20: slide and talk about.

00:08:20 --> 00:08:25: Uh, just how, yeah, this is a great one this

00:08:25 --> 00:08:30: now go ahead and go back to that first slide,

00:08:30 --> 00:08:35: the yeah, so here is here is the basic objective

00:08:35 --> 00:08:40: and what are the, what are the performance and operating

00:08:21 --> 00:08:25: characteristics of those types of buildings. And we had to

00:08:25 --> 00:08:29: work pretty hard pretty meticulously looking at some data which

00:08:29 --> 00:08:33: I'll explain in a minute. And also just want to

00:08:33 --> 00:08:36: also thank Jeff Fisher at Nate Creef. We utilize a

00:08:36 --> 00:08:37: lot of.

00:08:37 --> 00:08:41: Minecraft data, that's for those that may not be familiar

00:08:41 --> 00:08:45: with it. Nate Reef is an organization which collects the

00:08:45 --> 00:08:49: performance of buildings that are owned by its members. It

00:08:49 --> 00:08:52: has well over 100 and 150 members who combined own

00:08:52 --> 00:08:57: almost a trillion dollars worth of real estate assets across

00:08:57 --> 00:09:01: the US, covering approximately 10,000 buildings and within when we

00:09:01 --> 00:09:06: undertook this research at the time, the apartment category from

00:09:06 --> 00:09:08: which we're going to extract.

00:09:08 --> 00:09:11: Some of this data had roughly about 191 billion and

00:09:11 --> 00:09:14: close to 2000 assets in it. So we thought this

00:09:14 --> 00:09:16: would be a good place to start. But what we

00:09:16 --> 00:09:19: had to do was to try and figure out how

00:09:19 --> 00:09:23: we're going to segment those buildings into these two different

00:09:23 --> 00:09:25: categories. So if we go to the next slide and

00:09:25 --> 00:09:28: just want to show you sort of the methodology of

00:09:28 --> 00:09:32: what we went through, I'll talk through the methodology briefly

00:09:32 --> 00:09:35: and then get into the results and the implications for

00:09:35 --> 00:09:38: some of this. So in terms of the methodology.

00:09:38 --> 00:09:42: We started with that Nate Creef data set and Nate

00:09:42 --> 00:09:46: Creef does report on the performance of apartments in 48

00:09:46 --> 00:09:50: different cities or MSA's across the US and we had

00:09:50 --> 00:09:54: to filter for that from those 48 cities, which of

00:09:54 --> 00:09:58: those cities had at least 20 assets going back over

00:09:58 --> 00:10:01: time, so we could build a time series of total

00:10:01 --> 00:10:05: returns. And in this chart, you'll see that we have

00:10:05 --> 00:10:08: a reference some exhibits in this chart.

00:10:08 --> 00:10:12: Those exhibits can be found in the article that we

00:10:12 --> 00:10:15: have put together in the research via the link in

00:10:15 --> 00:10:18: the chat room. Yeah, you can pull it down and

00:10:18 --> 00:10:21: and look at the read the whole paper. So we

00:10:21 --> 00:10:25: started with filtering for those MSA's and I should note

00:10:25 --> 00:10:28: also our need to work with NAKRI fund. This Snake

00:10:29 --> 00:10:33: reef maintains some confidentiality and so they don't report

on

00:10:33 --> 00:10:38: the performance of individual buildings, although they hold those, the

00:10:38 --> 00:10:39: performance of those.

00:10:39 --> 00:10:41: Buildings in their database.

00:10:42 --> 00:10:46: And once they have a minimum of four assets owned

00:10:46 --> 00:10:51: by at least three different types of investors, they'll they'll

00:10:51 --> 00:10:56: create a sub index for a particular city or category.

00:10:56 --> 00:10:59: So we were able to look at the the 38

00:10:59 --> 00:11:03: cities that did have a time series that went back

00:11:03 --> 00:11:03: to 2000.

00:11:04 --> 00:11:07: And then we had to create a time series of

00:11:07 --> 00:11:10: what is a monthly cost of rent so that somebody

00:11:10 --> 00:11:14: can afford. And so we want to utilize data from

00:11:14 --> 00:11:17: the from HUD where it posts what me and family

00:11:17 --> 00:11:21: income is. Going back to 2000. We really had to

00:11:21 --> 00:11:24: scrub a lot of that data just because of how

00:11:24 --> 00:11:28: the government changes the nomenclature over time. We make all

00:11:28 --> 00:11:32: that data available in the report for other researchers who

00:11:33 --> 00:11:34: want to use it or access.

00:11:34 --> 00:11:38: To do some of their own analysis and we simply

00:11:38 --> 00:11:42: had to convert that to that multifamily or that median

00:11:42 --> 00:11:46: family income into maximum monthly shelter cost and there's a

00:11:47 --> 00:11:50: pretty simple formula just taking 80% of MFI.

00:11:51 --> 00:11:55: Or you know, taking the annual MF, I multiply it

00:11:55 --> 00:11:57: by 80% so we we get sort of a cut

00:11:57 --> 00:12:01: off there. And then for the HUD definition, affordable housing

00:12:01 --> 00:12:05: would be something that is that would cost 30% of

00:12:05 --> 00:12:08: that 80%. The next thing we had to do was

00:12:08 --> 00:12:11: come up with the monthly utility cost, which wasn't easy

00:12:11 --> 00:12:15: unto itself, but we utilized a couple of different sources

00:12:16 --> 00:12:19: there, the American Housing Survey as well as the US

00:12:19 --> 00:12:21: Energy Information Agency.

00:12:21 --> 00:12:25: And we looked at that, we created a time series

00:12:25 --> 00:12:29: for those 38 metros. Interestingly enough, when we found out

00:12:29 --> 00:12:33: what that cost was as a percentage of median family

00:12:33 --> 00:12:36: income, it amounted to about 3.8%. And and that was

00:12:36 --> 00:12:39: a good check for us because we looked at the

00:12:40 --> 00:12:43: CPI and found that the weight of those categories within

00:12:44 --> 00:12:47: the CPI basket was about 3.3%. So we felt that

00:12:47 --> 00:12:50: we were pretty close in terms of some of our

00:12:50 --> 00:12:52: monthly utility costs.

00:12:52 --> 00:12:55: So what we essentially did is just subtract those utility

00:12:55 --> 00:12:59: costs from the maximum monthly shelter cost and we ended

00:12:59 --> 00:13:01: up with an acre if net rents or that we

00:13:01 --> 00:13:05: could net rents that we could take and they create

00:13:05 --> 00:13:08: so that they could filter the buildings. And what we're

00:13:08 --> 00:13:10: what we aim to do is we ask them to

00:13:10 --> 00:13:14: filter the buildings into those that had a rent level

00:13:14 --> 00:13:17: which was below our maximum threshold and then those that

00:13:17 --> 00:13:21: were above the maximum threshold. And from this we were

00:13:21 --> 00:13:23: able to create a national index.

00:13:23 --> 00:13:27: Now in that national index, the the composition of properties

00:13:27 --> 00:13:30: can change over time. So perhaps that was a period

00:13:30 --> 00:13:33: where the building had a below a rent level which

00:13:33 --> 00:13:35: was a below our threshold and then in the next

00:13:35 --> 00:13:39: quarter it moved above to that threshold. So we wouldn't

00:13:39 --> 00:13:42: necessarily have a same store analysis on that, it would

00:13:42 --> 00:13:45: be biased. So for that reason we also created vintage

00:13:45 --> 00:13:49: year indices, three of those where if the property qualified

00:13:49 --> 00:13:52: in that year then we kept it through the whole

00:13:52 --> 00:13:53: term and analyzed.

00:13:54 --> 00:13:57: And ultimately we were able to calm down the number

00:13:57 --> 00:14:01: of cities and and actually had enough data and enough

00:14:01 --> 00:14:05: sample, large enough sample size in essentially 11 different

00:14:06 --> 00:14:09: cities

00:14:09 --> 00:14:13: where the sample size is large enough where we could

00:14:13 --> 00:14:16: have those two categories, the above murder and the

00:14:16 --> 00:14:19: bloomer.

00:14:19 --> 00:14:20: So let's go and look at the results and the

00:14:22 --> 00:14:25: conclusions of some of that. So if we go to

00:14:25 --> 00:14:29: Slide 5.

00:14:29 --> 00:14:32: What you see here is just what is the performance

00:14:32 --> 00:14:35: of moderate income apartments. So that's the that's bold on

00:14:36 --> 00:14:39: the left and what you see on the horizontal scale

00:14:39 --> 00:14:42: is just the total returns over the time frame that

00:14:42 --> 00:14:45: we're able to capture the data and what the risk

00:14:45 --> 00:14:50: is on the sorry total returns on the on the

00:14:50 --> 00:14:52: vertical scale and risk on the horizontal scale. And it

00:14:52 --> 00:14:56: was interesting moderate income produced a total returns

00:14:56 --> 00:14:59: that exceeded

00:14:59 --> 00:15:02: what we'll call market.

00:15:02 --> 00:15:05: Departments or the non Mer category, it outperformed you

00:15:05 --> 00:15:08: know

00:14:56 --> 00:15:01: just about every asset class that's on this page with  
 00:15:01 --> 00:15:04: the exception of small cap and large caps stocks as  
 00:15:05 --> 00:15:09: well as industrial. So that was encouraging. Overall the the  
 00:15:09 --> 00:15:13: total returns for that time period that we covered was  
 00:15:13 --> 00:15:18: the close to 9.4% compared to the overall apartment index  
 00:15:18 --> 00:15:22: that was about 100 basis points higher and then compared  
 00:15:22 --> 00:15:23: to the non.  
 00:15:23 --> 00:15:27: Summer category, those produced a total return about 7.9%.  
 Each  
 00:15:27 --> 00:15:31: of those had a little bit higher risk not significantly  
 00:15:31 --> 00:15:34: so but nonetheless it suggested that this is a  
 00:15:34 --> 00:15:38: good category for investors consider and then we wanted to  
 00:15:38 --> 00:15:42: also look at the how the performance was against other  
 00:15:42 --> 00:15:47: property sectors within the ncreif index that institutional  
 investors investors  
 00:15:47 --> 00:15:49: and we can see that on the next slide.  
 00:15:50 --> 00:15:54: Where we are looking at each of the individual property  
 00:15:54 --> 00:15:58: sectors here and modern income rental housing again is over  
 00:15:58 --> 00:16:01: on the left hand side showing that same return. And  
 00:16:01 --> 00:16:05: then there was something interesting in that we found. So  
 00:16:05 --> 00:16:08: out of the all those different cities that we were  
 00:16:08 --> 00:16:11: able to narrow this down to, it turns out there  
 00:16:11 --> 00:16:14: that there were three cities Chicago, LA and New York  
 00:16:14 --> 00:16:17: that did not have any buildings within the nacre F  
 00:16:18 --> 00:16:20: index that had a rent level that was below.  
 00:16:20 --> 00:16:25: Our threshold, so clearly there are moderate income rental  
 housing  
 00:16:25 --> 00:16:29: units within those cities. It's just that they are not  
 00:16:29 --> 00:16:33: being invested in by institutional investors that are members  
 of  
 00:16:33 --> 00:16:37: nacre if and that could be the fact that there weren't  
 00:16:37 --> 00:16:40: any MUR assets in that category could sort of bias  
 00:16:40 --> 00:16:44: our results. So we pulled that performance out and you  
 00:16:44 --> 00:16:48: see those large, the average performance of those large  
 markets  
 00:16:48 --> 00:16:51: was pretty low and it made the rest of the.  
 00:16:52 --> 00:16:54: Apartments go up just a little bit, but notably it,  
 00:16:55 --> 00:16:58: it still showed the same thing that moderate income rental  
 00:16:58 --> 00:17:01: housing had higher returns and lower risk over the time  
 00:17:01 --> 00:17:02: frame that we studied.  
 00:17:03 --> 00:17:06: And then going to the next slide, uh, we are  
 00:17:06 --> 00:17:10: looking here at what the correlations are. Obviously,  
 correlations are



00:17:10 --> 00:17:15: something that are very important to investors for diversification benefits.

00:17:15 --> 00:17:19: When investors are building portfolios, they're looking at a few

00:17:19 --> 00:17:22: items. They want to know does it have a good

00:17:22 --> 00:17:25: total return relative to other asset classes and what is,

00:17:25 --> 00:17:28: how is the risk. They also want to know if

00:17:28 --> 00:17:31: the correlations are low so that they can create a

00:17:31 --> 00:17:34: diversified portfolio. And here we compare.

00:17:34 --> 00:17:39: Moderate income apartments and then our market rate apartments and

00:17:39 --> 00:17:42: with the S&P 500 and the bond market and also

00:17:42 --> 00:17:46: high yield and the correlations are are are pretty much

00:17:46 --> 00:17:49: in the same range which which said to the US

00:17:49 --> 00:17:53: that these can that this category can still provide the

00:17:53 --> 00:17:58: same diversification benefits that just general market rate housing which

00:17:58 --> 00:18:03: was a which meant that investors shouldn't necessarily overlook this

00:18:03 --> 00:18:04: category.

00:18:04 --> 00:18:09: Of buildings which can provide that moderate income affordability if

00:18:09 --> 00:18:13: you will to tenants. And then we wanted to see

00:18:13 --> 00:18:16: you know how is this skewed or how is this

00:18:16 --> 00:18:21: look over different performance. And we went to the next

00:18:21 --> 00:18:24: slide. So this shows it and breaks it down into

00:18:24 --> 00:18:28: 13510 year and our since yeah the 10 year. And

00:18:28 --> 00:18:32: you know the blue bars show in each time frame

00:18:32 --> 00:18:34: how the national murder.

00:18:34 --> 00:18:38: Performed relative to non Mer category that's in the orange

00:18:39 --> 00:18:42: bar that dark blue or brown bar on the right

00:18:42 --> 00:18:46: that reflects the performance of those large apartment markets. So

00:18:47 --> 00:18:50: we thought it would had add some bias to our

00:18:50 --> 00:18:53: analysis. So we took that out. So we can just

00:18:53 --> 00:18:57: compare those. The Group of cities that we had data

00:18:57 --> 00:19:01: for that had were bucketed in both categories. So as

00:19:01 --> 00:19:04: I mentioned earlier more outperformed that market.

00:19:04 --> 00:19:08: Right department in every time period that we studied so

00:19:09 --> 00:19:13: makes another good case for investors to consider this. And

00:19:13 --> 00:19:17: then just looking at the vintage year. So those that

00:19:17 --> 00:19:21: that's slide showed the performance periods but we also wanted

00:19:22 --> 00:19:25: to look at the vintage year and get rid of

00:19:25 --> 00:19:28: you know make sure we had more of a same  
 00:19:28 --> 00:19:32: store analysis and it was striking in each case for  
 00:19:32 --> 00:19:35: the 2005, 2010, 2015 in each instance those.  
 00:19:35 --> 00:19:40: Those performance periods uh from our outperform the those  
 buildings  
 00:19:40 --> 00:19:43: that had a rent level which was above and in  
 00:19:43 --> 00:19:46: some cases by a fairly in an even more significant  
 00:19:46 --> 00:19:50: amount compared to the national indices. So again some  
 empirical  
 00:19:50 --> 00:19:54: evidence to to sort of support investing in this category  
 00:19:54 --> 00:19:55: of assets.  
 00:19:57 --> 00:20:00: Then we want to say, OK, are we getting this,  
 00:20:00 --> 00:20:03: are we getting the same results at the city level.  
 00:20:03 --> 00:20:06: So we decided to you know, look at the cities  
 00:20:06 --> 00:20:09: that we had a robust longer term time series with  
 00:20:09 --> 00:20:12: a minimum of 20 assets in them and we showed  
 00:20:12 --> 00:20:16: the risk and return performance here as well. And again  
 00:20:16 --> 00:20:19: it on the next slide, it shows that there isn't  
 00:20:19 --> 00:20:23: any inconsistency. You know, look at the city like Phoenix  
 00:20:23 --> 00:20:27: where the murder, what the Merc performance was almost.  
 00:20:27 --> 00:20:32: Approaching 15% compared to 10% now I will say in  
 00:20:32 --> 00:20:34: respect of Phoenix.  
 00:20:35 --> 00:20:38: There may have been a little biased this was we  
 00:20:38 --> 00:20:42: were about ohh nine months into COVID at this point  
 00:20:42 --> 00:20:46: and so they're in already started to be some demand  
 00:20:46 --> 00:20:50: for apartments there I think and and Phoenix was probably  
 00:20:50 --> 00:20:53: the early one that that captured a lot of that  
 00:20:53 --> 00:20:56: growth. But it was when we looked at the other  
 00:20:56 --> 00:21:00: cities there really didn't seem to be a COVID effect  
 00:21:00 --> 00:21:03: in that last year performance that we had in 2021.  
 00:21:03 --> 00:21:05: So it it didn't seem like that.  
 00:21:05 --> 00:21:09: Had a huge effect when you look over the whole  
 00:21:09 --> 00:21:12: 10 year. But nevertheless in each of the instances of  
 00:21:12 --> 00:21:17: this, this category of apartments certainly outperformed the  
 other ones.  
 00:21:17 --> 00:21:21: But we wanted to ask some other questions and tease  
 00:21:21 --> 00:21:24: out the data. So we also wanted to look at  
 00:21:24 --> 00:21:27: the risk adjusted returns at the city level and we  
 00:21:27 --> 00:21:30: have a table on that on the next slide. And  
 00:21:30 --> 00:21:35: similar to the national analysis earlier, we wanted to look  
 00:21:35 --> 00:21:36: at each vintage year.  
 00:21:36 --> 00:21:41: Or each performance. SO135 and 10 year and since  
 inception

00:21:41 --> 00:21:45: and just about in every case of the the Merck

00:21:45 --> 00:21:50: category was outperforming. So this didn't seem to be an

00:21:50 --> 00:21:53: accident, you know, we tried to.

00:21:54 --> 00:21:59: Control for different cities, you know, the national doesn't necessarily

00:21:59 --> 00:22:03: control for cities because different cities can influence the national

00:22:03 --> 00:22:06: index. So it was encouraging when we got here to

00:22:06 --> 00:22:09: some of the city level indices that we're seeing some

00:22:09 --> 00:22:12: of the same results and it generally most, you know

00:22:12 --> 00:22:15: about half the time the the standard deviation of returns

00:22:15 --> 00:22:19: is lower than the market rate category and other times

00:22:19 --> 00:22:22: it was above but not significantly so. And then for

00:22:22 --> 00:22:24: investors we wanted to you know, there's this.

00:22:25 --> 00:22:29: Statistical term of are they significantly different, so is the

00:22:29 --> 00:22:34: murder category and its performance significantly different from the non

00:22:34 --> 00:22:37: more. And for those statisticians out there on the next

00:22:37 --> 00:22:41: slide, we went through that analysis and what this will

00:22:41 --> 00:22:44: tell you just to to sort of summarize it quickly

00:22:45 --> 00:22:48: that you know in most cases even though the nerve

00:22:48 --> 00:22:52: returns were higher, they actually fall within a range that

00:22:52 --> 00:22:54: institutional investors might expect.

00:22:55 --> 00:22:58: Apartments. And on the one hand you might you know

00:22:58 --> 00:23:01: when we, when Jake and I first looked at this,

00:23:01 --> 00:23:05: we thought we thought they would be statistically different and

00:23:05 --> 00:23:08: that would make the case. But realistically the fact that

00:23:08 --> 00:23:12: they're not significantly different just means that they should be

00:23:12 --> 00:23:16: considered as part of an investor's overall toolkit to to

00:23:16 --> 00:23:19: maximize their return and risk. We also wanted to look

00:23:19 --> 00:23:23: a little bit at some of the performance characteristics of

00:23:23 --> 00:23:26: this what we did find looking at occupancy.

00:23:26 --> 00:23:29: And the next slide was that in this case occupancy

00:23:29 --> 00:23:34: rates were in, in statistical terms different and they were

00:23:34 --> 00:23:38: lower in certain cases like Atlanta, Houston and Phoenix. So

00:23:38 --> 00:23:42: they were a little bit lower but not not meaningfully

00:23:42 --> 00:23:46: much. But what it says is that perhaps these are,

00:23:46 --> 00:23:51: you know, there's opportunities to maximize the occupancy in these

00:23:51 --> 00:23:55: types of buildings to even grow the income a little

00:23:55 --> 00:23:56: bit higher.

00:23:57 --> 00:24:00: And then we also wanted to explore, OK, is there

00:24:00 --> 00:24:04: is the CapEx more intensive on these types of properties.

00:24:04 --> 00:24:07: And so we looked at the, I think that's the

00:24:07 --> 00:24:10: next slide. If you turn to that, yeah, was the

00:24:11 --> 00:24:14: CapEx statistically different and yes, it was, it was a

00:24:14 --> 00:24:19: little bit different with the exception of a couple markets

00:24:19 --> 00:24:22: like Dallas for example or the 2010 vintage year. But

00:24:22 --> 00:24:26: generally speaking, you can look at some of these numbers

00:24:27 --> 00:24:27: and.

00:24:27 --> 00:24:30: This is just looking at the capital expenditure data in

00:24:30 --> 00:24:30: nacre.

00:24:31 --> 00:24:31: If.

00:24:31 --> 00:24:35: Divided by the current market value to get that percentage

00:24:35 --> 00:24:38: and then looking into that average overtime. So it does

00:24:38 --> 00:24:41: say that the above mirror has lower CapEx. So this

00:24:41 --> 00:24:45: this brought up the question of some additional research that

00:24:45 --> 00:24:48: Jake and I may undertake which is really now digging

00:24:48 --> 00:24:51: down into some of these individual buildings and you know

00:24:51 --> 00:24:54: is there an age difference in these, is there a

00:24:54 --> 00:24:57: locational difference in some of these.

00:24:57 --> 00:25:00: Or you know what's causing that to go a little

00:25:00 --> 00:25:04: bit higher, but you know Despite that slightly higher cap

00:25:04 --> 00:25:08: acts, the total returns were still pretty strong and one

00:25:08 --> 00:25:11: of the reasons maybe if we go to the next

00:25:11 --> 00:25:15: slide is where the earnings yield statistically different. So in

00:25:15 --> 00:25:20: each case generally speaking the earnings yields that's just

00:25:20 --> 00:25:23: looking

00:25:23 --> 00:25:27: at the current income divided by the most recent market

00:25:27 --> 00:25:31: value that we've got out of the NCREIF database and.

00:25:32 --> 00:25:35: Again, from a statistical difference not significantly different.

00:25:35 --> 00:25:38: So they're

00:25:38 --> 00:25:42: still in the same ballpark of what investors would expect.

00:25:42 --> 00:25:45: But you can see just casually observing it that over

00:25:45 --> 00:25:47: the time period study those were higher and those probably

00:25:47 --> 00:25:51: contributed to some of the performance. So just to wrap

00:25:51 --> 00:25:55: it up and I'm going to turn it over to

00:25:55 --> 00:25:57: Jake, to Jake for some additional thoughts on this, the

00:25:57 --> 00:26:02: conclusion was that we came to after exhaustive meticulous

00:26:02 --> 00:26:07: analysis

00:26:07 --> 00:26:10: of looking at this obviously with the help of.

00:26:10 --> 00:26:13: Fisher at Nate Reef that, you know, moderate income rental

00:26:13 --> 00:26:16: housing seems to produce the performance characteristics

00:26:16 --> 00:26:19: that has earned

00:26:07 --> 00:26:12: its role in many institutional investor portfolios. So with that,

00:26:12 --> 00:26:14: Jake, let me turn it over to you.

00:26:15 --> 00:26:18: Thanks mark. So you know just to step back a

00:26:18 --> 00:26:22: little bit from from all this analysis you know I

00:26:22 --> 00:26:22: think.

00:26:23 --> 00:26:26: You know, what Mark is shown here is a, you

00:26:26 --> 00:26:30: know, I think a fairly convincing portrait that over this.

00:26:30 --> 00:26:34: At least that we analyze that, you know, mere performance

00:26:34 --> 00:26:38: measured and you know different ways as you know generally,

00:26:38 --> 00:26:43: let's call it commensurate with, you know, above moderate rental

00:26:43 --> 00:26:45: income assets and in the data set.

00:26:46 --> 00:26:49: And and that kind of brings us to what you

00:26:49 --> 00:26:52: could view as a sort of a structural problem with

00:26:52 --> 00:26:55: murder. If you wanted it to be part of let's

00:26:55 --> 00:26:59: say a category of ESG investments, right, or you know,

00:26:59 --> 00:27:04: environmentally, environmental, social governance focused investments that there's such a

00:27:05 --> 00:27:08: demand for these days and that's that, you know, contrast

00:27:08 --> 00:27:12: that with a wind farm, for example, you know, something

00:27:12 --> 00:27:15: that would be firmly within the E category of ESG.

00:27:16 --> 00:27:19: And in a wind farm, if it's earning a great

00:27:19 --> 00:27:22: return, but it's being a wind farm and it's reducing

00:27:22 --> 00:27:25: carbon emissions, everyone's happy, right?

00:27:26 --> 00:27:30: But in this case, if you have Mer assets that

00:27:30 --> 00:27:32: are earning great returns.

00:27:33 --> 00:27:37: But also providing housing to people of moderate incomes, that

00:27:37 --> 00:27:40: could be viewed in some quarters with suspicion, right? You

00:27:41 --> 00:27:44: know, there could be a real inverse relationship between how

00:27:44 --> 00:27:47: well the assets are doing from a financial point point

00:27:47 --> 00:27:50: of view and then how useful they're perceived to be

00:27:50 --> 00:27:53: out there in the world in terms of the affordability

00:27:54 --> 00:27:57: benefits they're they're giving to to the tenancy weapon.

00:27:58 --> 00:28:00: And so when we thought about what would be a

00:28:00 --> 00:28:04: way to get around that, you know, possible perception problem,

00:28:04 --> 00:28:07: it might be to create a standard. And you know

00:28:07 --> 00:28:09: we just to be clear, we, we, we, we don't

00:28:09 --> 00:28:12: have a standard that we are proposing here. But we

00:28:12 --> 00:28:15: did think that we it would be useful to begin

00:28:15 --> 00:28:18: a conversation about what a standard might look like that

00:28:18 --> 00:28:21: if there were, I don't know if it would be  
00:28:21 --> 00:28:24: called certified murder or you know maybe some, you know,  
00:28:24 --> 00:28:27: better name for it that someone else could come up.  
00:28:27 --> 00:28:28: Come up with.  
00:28:29 --> 00:28:33: But if if that were widely known for a  
00:28:33 --> 00:28:38: given apartment development, let's say asset to be  
designated as  
00:28:38 --> 00:28:45: murder, then people, the general public, policymakers, local  
elected officials,  
00:28:45 --> 00:28:50: funders would know that it has that designation and and  
00:28:50 --> 00:28:54: that that that could help us proceed in that way.  
00:28:56 --> 00:28:57: So.  
00:28:57 --> 00:29:01: You know, just to give an example of what this  
00:29:01 --> 00:29:04: could look like, maybe to be a mere asset in  
00:29:04 --> 00:29:08: good standing, the rents that are in the apartments in  
00:29:08 --> 00:29:12: a given asset must average to, you know, rent for  
00:29:12 --> 00:29:16: 80% or less of the median family income plus utility  
00:29:16 --> 00:29:20: costs and and in the manner that that Mark described  
00:29:20 --> 00:29:24: earlier or maybe another way that it could be done  
00:29:24 --> 00:29:28: would be perhaps every single apartment in the asset must  
00:29:28 --> 00:29:28: be.  
00:29:29 --> 00:29:32: Below a certain threshold, perhaps 100% of median income,  
there  
00:29:32 --> 00:29:35: there would be different ways that that that this could  
00:29:35 --> 00:29:38: be done and you know maybe it would be adjusted  
00:29:38 --> 00:29:41: by household size, which you know we were not able  
00:29:41 --> 00:29:44: to do in our analysis here. So there are different  
00:29:44 --> 00:29:46: ways that it could be done.  
00:29:48 --> 00:29:51: But you know, however we're done, we think it would  
00:29:51 --> 00:29:55: have a lot of benefits and we were thinking about  
00:29:55 --> 00:29:59: some precedents, other successful efforts that have been  
arrived at  
00:29:59 --> 00:30:00: to.  
00:30:00 --> 00:30:03: To to create standards where you know a kind of  
00:30:04 --> 00:30:08: a product, an investment product could, could, could gain  
recognition  
00:30:08 --> 00:30:11: and just one what we thought of as a successful  
00:30:11 --> 00:30:16: precedent was the enterprise Green Community standard  
which you know  
00:30:16 --> 00:30:17: promotes green building.  
00:30:19 --> 00:30:22: And was arrived at through a collaboration of you know  
00:30:22 --> 00:30:27: relevant people in the industry and in green building  
advocates

00:30:27 --> 00:30:30: and has gained a lot of traction as and is  
00:30:30 --> 00:30:34: widely recognized. And then another precedent which you know might  
00:30:34 --> 00:30:38: seem odd but but we thought the low income housing  
00:30:38 --> 00:30:42: tax credit of course now that's not a standard that's  
00:30:42 --> 00:30:45: a that's a provision in the tax code but when  
00:30:45 --> 00:30:48: people when when people talk about a tax credit.  
00:30:49 --> 00:30:52: Project they know what it is you know they know  
00:30:52 --> 00:30:56: that the rents of the apartments are limited to certain  
00:30:56 --> 00:30:59: levels and and and they know that they're those units  
00:30:59 --> 00:31:04: are reserved for tenant tenants earning below certain income. So  
00:31:04 --> 00:31:08: that you know provides an example of of something that  
00:31:08 --> 00:31:11: could be done with murder but you know there would  
00:31:11 --> 00:31:14: be further up the the income scale to to  
00:31:14 --> 00:31:19: to designate it as a recognized ESG investment product perhaps.  
00:31:20 --> 00:31:23: So you know how could this, how could this be,  
00:31:23 --> 00:31:27: let let's say that this merger standard were created and  
00:31:27 --> 00:31:31: came to be recognized, how could it be furthered? Well,  
00:31:31 --> 00:31:34: you know we think there are different ways that that  
00:31:34 --> 00:31:38: that could happen. You know there might be some markets  
00:31:38 --> 00:31:42: where just because of land use regulation and high land  
00:31:42 --> 00:31:45: prices and other factors it might not be possible to  
00:31:45 --> 00:31:49: create more assets in the absence of public subsidies so.  
00:31:50 --> 00:31:54: Murder would then just become another type of affordable housing  
00:31:54 --> 00:31:57: that's further up the investment scale to go along with  
00:31:57 --> 00:32:01: the ones that we already have where local governments could  
00:32:01 --> 00:32:05: do various things such as property tax breaks and other  
00:32:05 --> 00:32:08: things to to encourage them to be developed or including  
00:32:08 --> 00:32:13: a major component of a large redevelopment project, for example.  
00:32:13 --> 00:32:16: It could be part of the negotiations with a developer  
00:32:16 --> 00:32:20: during the entitlement process. And I just want to point  
00:32:20 --> 00:32:20: out.  
00:32:20 --> 00:32:23: You know we do have a rich history in this  
00:32:23 --> 00:32:27: country of of large scale middle income developments. You know  
00:32:27 --> 00:32:30: we have the Mitchell Lama program in New York State  
00:32:30 --> 00:32:34: that that created so much housing and you know we  
00:32:34 --> 00:32:38: have well known large scale middle income developments in other

00:32:38 --> 00:32:41: cities that were you know built a long time ago

00:32:41 --> 00:32:44: at this point, Park La Brea and Los Angeles, Carl

00:32:44 --> 00:32:48: Sandburg Village in Chicago, Lafayette Park in Detroit just as

00:32:48 --> 00:32:50: as some examples among many and.

00:32:50 --> 00:32:55: Perhaps a merge designation could, you know, help spark a

00:32:55 --> 00:33:00: a revival in this sort of middle income development.

00:33:01 --> 00:33:03: So I guess just you know where I want to

00:33:03 --> 00:33:06: leave us and and you know before we you know

00:33:07 --> 00:33:10: head into the into the into fielding some questions here.

00:33:10 --> 00:33:13: You know arguably if you look at it the E

00:33:13 --> 00:33:16: and the SG in some ways is easier to do

00:33:16 --> 00:33:21: right somebody environmental benefits are easy to quantify

00:33:21 --> 00:33:24: right, the

00:33:24 --> 00:33:28: pounds of carbon dioxide that have been avoided or the

00:33:28 --> 00:33:30: percentage in drop in water consumption and you know in

00:33:30 --> 00:33:33: a given technology.

00:33:33 --> 00:33:37: The S can be a little trickier, right? It's S

00:33:37 --> 00:33:38: is social. S involves human beings, and human beings are

00:33:38 --> 00:33:41: complicated.

00:33:41 --> 00:33:44: But you know, we do think that with this idea

00:33:44 --> 00:33:49: of merger that there is the potential to offer an

00:33:49 --> 00:33:53: investment product where the social performance, where the

00:33:53 --> 00:33:57: below market

00:33:57 --> 00:34:00: rents are quantifiable. And I shouldn't have said below

00:34:00 --> 00:34:03: market,

00:34:03 --> 00:34:07: I should have said middle income rents are quantifiable. And

00:34:07 --> 00:34:09: so we think that there's an opportunity there. So we

00:34:09 --> 00:34:13: think that there would be a lot of benefits to

00:34:13 --> 00:34:17: you know, promoting this as an investment class that you

00:34:17 --> 00:34:21: know, for which there be a lot of interest.

00:34:21 --> 00:34:25: So with that, umm, well, I want to reiterate our

00:34:25 --> 00:34:28: thanks to Wells Fargo and Affordable Central TX for their

00:34:28 --> 00:34:32: sponsorship of the research. And I want to really thank

00:34:32 --> 00:34:33: as well you alive for the opportunity to present today

00:34:33 --> 00:34:35: and to you know Jane Mohammed and and Rosie for

00:34:35 --> 00:34:40: for helping organize this event. So we'll now take some

00:34:40 --> 00:34:41: questions.

00:34:41 --> 00:34:45: So we've received some questions from folks through the

00:34:45 --> 00:34:48: Q&A.

00:34:48 --> 00:34:50: Please add some more and we can, you know, bring

00:34:50 --> 00:34:53: those out to you folks on the panelists.

00:34:53 --> 00:34:54: Couple things that have jumped out when.

00:34:54 --> 00:34:57: One is just a, you know, a definition, you know,



00:34:57 --> 00:35:01: is there any difference between moderate income retail housing and

00:35:01 --> 00:35:05: naturally occurring affordable housing or is 1 subset of the

00:35:05 --> 00:35:05: other.

00:35:09 --> 00:35:11: Bart, did you want to take that one or should

00:35:11 --> 00:35:12: I take a take?

00:35:12 --> 00:35:13: You want to take a stab at it.

00:35:13 --> 00:35:17: Take a stab at it. I mean, my sense is

00:35:17 --> 00:35:21: that the term Noah is very often applied to.

00:35:22 --> 00:35:25: You know, quite old housing, you know, housing that has

00:35:25 --> 00:35:29: become affordable simply because you know, it's been around a

00:35:29 --> 00:35:32: long time and you know may or may not be

00:35:32 --> 00:35:35: well maintained. And I also think that it has a

00:35:35 --> 00:35:39: connotation, you know, maybe not a one for one connotation,

00:35:39 --> 00:35:43: but it's often thought of as smaller scale rental housing

00:35:43 --> 00:35:46: developments that might be too small to be of interest

00:35:46 --> 00:35:50: to, you know, institutional investors. And so with murder we're

00:35:50 --> 00:35:52: thinking of something that.

00:35:52 --> 00:35:55: Could you know AB kind of of that scale to

00:35:55 --> 00:35:59: be of interest to institutional investors, but also B could

00:35:59 --> 00:36:02: be you know murder right out from right out of

00:36:02 --> 00:36:05: the gate. You know at the time that it's developed,

00:36:05 --> 00:36:08: you know from from from day one as opposed to

00:36:08 --> 00:36:10: let's say a 10 or 15 or 20 year old

00:36:10 --> 00:36:13: asset. But I don't know would you add anything to

00:36:13 --> 00:36:13: that?

00:36:15 --> 00:36:18: Would I, our focus here has really been much more

00:36:18 --> 00:36:21: on the income than on the building or the quality

00:36:21 --> 00:36:24: of the building. And so maybe that's the key difference

00:36:24 --> 00:36:27: here in terms of the terminology and what it can

00:36:27 --> 00:36:30: mean. So they don't want to speak for Jake, but

00:36:30 --> 00:36:32: I think our thought was if we can clean up

00:36:32 --> 00:36:36: some of the terminology that starts getting this underway on

00:36:36 --> 00:36:39: a path toward and getting everybody on board to say,

00:36:39 --> 00:36:42: OK, we're focused on tenants, we're focused on their income.

00:36:42 --> 00:36:45: So how do we address that given the variety of.

00:36:45 --> 00:36:46: Real estate.

00:36:47 --> 00:36:51: Areas out there, low rise, high-rise, infill, you know all

00:36:51 --> 00:36:55: these. So the terms themselves like no, it don't necessarily

00:36:55 --> 00:36:58: solve the affordable housing and it's the sort of the

00:36:58 --> 00:37:01: focus. So I think that's a little bit more of

00:37:01 --> 00:37:05: what we emphasized on something like that. And one other

00:37:05 --> 00:37:07: point that I don't, I'm not sure that Jack I

00:37:07 --> 00:37:10: made was that in the terms of the buildings that

00:37:10 --> 00:37:15: we analyzed, these were properties that presumably are not receiving

00:37:15 --> 00:37:17: any tax credits or anything, so not we are.

00:37:17 --> 00:37:22: These are institutionally owned freehold properties. So we we don't

00:37:22 --> 00:37:25: think that there are any subsidies that were that were

00:37:25 --> 00:37:28: on that. So it goes to show that the market

00:37:28 --> 00:37:31: can address this type of housing and the areas of

00:37:31 --> 00:37:36: support that might be needed for developers wouldn't necessarily be

00:37:36 --> 00:37:39: in some cases that yes it may be property taxes

00:37:39 --> 00:37:42: and things of that nature, but just just the ability

00:37:42 --> 00:37:45: to get things built in a in a faster amount

00:37:45 --> 00:37:48: of time with a blue approvals and things of that

00:37:48 --> 00:37:49: nature.

00:37:49 --> 00:37:52: They sort of shrinking down that window a little bit

00:37:52 --> 00:37:54: can be a non cost way of helping to bring

00:37:54 --> 00:37:58: these things to market, particularly when the Federal Reserve is

00:37:58 --> 00:38:02: raised the interest rates so much and and raised financing

00:38:02 --> 00:38:04: cost for projects such as these.

00:38:06 --> 00:38:10: So we've got a couple of questions. I think you

00:38:10 --> 00:38:13: know we revolve around the fact that you used naked

00:38:13 --> 00:38:17: reef data and you know it maybe you addressed it

00:38:17 --> 00:38:20: a little bit maybe you can just touch again Mark

00:38:20 --> 00:38:23: you know why was Nate brief data so good for

00:38:23 --> 00:38:26: for doing this and you know you you also answered

00:38:27 --> 00:38:31: a couple of questions regarding you know other subsidies but

00:38:31 --> 00:38:34: can you just kind of talk through once again how

00:38:34 --> 00:38:37: we what were the benefits of using they creep?

00:38:37 --> 00:38:41: And how did you pick those few cities as being

00:38:41 --> 00:38:44: representative of of that data set?

00:38:45 --> 00:38:48: It was the only data set that we really could

00:38:48 --> 00:38:52: find. There may be one out there, but we weren't

00:38:52 --> 00:38:55: able to find it. That was simply focused on, if

00:38:55 --> 00:39:00: you will, buildings that provided shelter for those earning, you

00:39:00 --> 00:39:03: know, 60 to 120% of MI or MI. And we

00:39:03 --> 00:39:08: couldn't really find one that we heard about little things.

00:39:08 --> 00:39:11: There are some people are collecting it, but we didn't

00:39:11 --> 00:39:15: have something that gave us a long enough time series.

00:39:15 --> 00:39:19: So when pension funds and institutional investors are trying to

00:39:19 --> 00:39:22: figure out how much they allocate to real estate in

00:39:22 --> 00:39:25: general and then how much to each property sectors, they

00:39:25 --> 00:39:29: tend to look at long-term return series to help them

00:39:29 --> 00:39:32: understand the return and risk and risk of adherers defined

00:39:32 --> 00:39:36: by standard deviation. So on average, you know 66% of

00:39:36 --> 00:39:37: the time, 67% of the time.

00:39:38 --> 00:39:42: Insurance will be within a certain range. So lower standard

00:39:42 --> 00:39:47: deviation of returns is typically better than higher standard deviation

00:39:47 --> 00:39:50: of returns. So Nate Creef had that type of data

00:39:50 --> 00:39:53: going back to 78 but that index has grown a

00:39:53 --> 00:39:56: lot. So if we went back to 2000 and you

00:39:56 --> 00:39:59: know at that time the the size of the index

00:39:59 --> 00:40:03: was maybe 400 billion or 300 billion, today it's closer

00:40:03 --> 00:40:06: to a trillion. So that and that just goes to

00:40:06 --> 00:40:09: show how institutional investors.

00:40:09 --> 00:40:12: Have been investing so much and direct real estate over

00:40:12 --> 00:40:15: the last 20 years and continue to do so. And

00:40:15 --> 00:40:17: so we were able to get to those. And then

00:40:17 --> 00:40:21: just from a statistical standpoint we wanted to make sure

00:40:21 --> 00:40:24: we had we weren't getting sort of asset specific issues

00:40:24 --> 00:40:27: really looking more at market and nation. And so for

00:40:28 --> 00:40:31: that reason we needed a minimum sample size of 10

00:40:31 --> 00:40:34: buildings in each of those categories and so that that

00:40:34 --> 00:40:37: caused us to filter down some of those. So there

00:40:37 --> 00:40:39: are some cities New York, Dallas.

00:40:39 --> 00:40:42: Houston, there are 80 some odd or you know saying

00:40:42 --> 00:40:46: about 50 buildings going back to 2000 and then there's

00:40:46 --> 00:40:49: some like San Francisco or Boston believe it or not,

00:40:49 --> 00:40:52: they only have 8 buildings in them as of 2000

00:40:52 --> 00:40:55: now they've grown quite a bit since then as more

00:40:55 --> 00:40:59: investors have put capital in those markets, but they didn't

00:40:59 --> 00:41:02: have that many assets going back to the early 2000s.

00:41:02 --> 00:41:05: So that was all part of the the filtering and

00:41:05 --> 00:41:08: it makes it makes for some good reading in that

00:41:08 --> 00:41:09: paper if you.

00:41:09 --> 00:41:11: Want to click on that link and get a copy

00:41:11 --> 00:41:12: of that paper?

00:41:12 --> 00:41:17: There's been a variety of questions regarding, you know, how

00:41:17 --> 00:41:21: do you expand this study to include smaller properties or

00:41:21 --> 00:41:22: more cities?

00:41:24 --> 00:41:26: Whether you have any ideas on how you could do

00:41:26 --> 00:41:26: that?

00:41:27 --> 00:41:30: You know, unless we're missing something, I think it would

00:41:30 --> 00:41:32: be difficult to do that at a nationwide scale. But

00:41:32 --> 00:41:35: I do think it would be possible within certain, you

00:41:35 --> 00:41:38: know, particular markets that people have an interest in. If

00:41:38 --> 00:41:41: there are data, you know, sets that exist there, then

00:41:41 --> 00:41:43: it, you know, might be possible to do more of

00:41:43 --> 00:41:46: a deep dive in particular places. What do you think?

00:41:46 --> 00:41:47: Mark.

00:41:47 --> 00:41:50: Yeah, and it's it's important to to look at the

00:41:50 --> 00:41:53: data you are collecting and that's another thing with the.

00:41:54 --> 00:41:58: These are buildings that are valued every quarter typically by

00:41:58 --> 00:42:02: an external appraiser. So there's some objectivity in what goes

00:42:02 --> 00:42:06: on in terms of those valuations. And you know you

00:42:06 --> 00:42:10: need the ending market value and the beginning market value

00:42:10 --> 00:42:13: plus the income to compute the total return. So if

00:42:13 --> 00:42:17: there are consortiums at a local level where those groups

00:42:17 --> 00:42:20: that are maybe operating in this type of housing and

00:42:20 --> 00:42:24: our marketing those to market every quarter, yeah.

00:42:24 --> 00:42:27: They can. They can come together to create those local

00:42:28 --> 00:42:31: indices or they can also become members at the same

00:42:31 --> 00:42:34: time of ncreif and we can expand the the data

00:42:34 --> 00:42:35: set there.

00:42:35 --> 00:42:38: Or last thing I'll say is I don't know any

00:42:38 --> 00:42:42: big institutional investors are out there listening and you know

00:42:42 --> 00:42:44: would love to turn over a data set for some

00:42:45 --> 00:42:47: academic research. That would be wonderful.

00:42:47 --> 00:42:51: And another kind of set of questions are you know

00:42:51 --> 00:42:55: around the the whole you know definition of this as

00:42:55 --> 00:42:58: an asset class and and and you know it's kind

00:42:58 --> 00:43:01: of an expansion of affordability.

00:43:02 --> 00:43:05: Any ideas on on on?

00:43:06 --> 00:43:10: You know where Merck could be used, you know I

00:43:10 --> 00:43:13: think you had mentioned like tax credit deals and all

00:43:14 --> 00:43:17: and you know any other thoughts as to how how

00:43:17 --> 00:43:20: it could be applied and and to be provide a

00:43:20 --> 00:43:22: broader range of affordability?

00:43:24 --> 00:43:27: I imagine, you know, I guess where my this maybe

00:43:27 --> 00:43:30: just reflects kind of what I think about most and  
 00:43:30 --> 00:43:33: in my research, but my mind goes to some sort  
 00:43:33 --> 00:43:36: of a negotiation between a local government and.  
 00:43:37 --> 00:43:40: You know a developer and the developer is seeking some  
 00:43:40 --> 00:43:44: sort of you know entitlements for a given site that  
 00:43:44 --> 00:43:47: they want to develop on. And you know right now  
 00:43:47 --> 00:43:51: they will negotiate over the usual things and including X  
 00:43:51 --> 00:43:55: number of below market units and and including open space  
 00:43:55 --> 00:43:57: and and other amenities and so forth.  
 00:43:58 --> 00:44:01: And if Murr existed, you know I I could imagine  
 00:44:01 --> 00:44:05: that just being another deal point or you know another  
 00:44:05 --> 00:44:09: area of negotiation where you know a city might say  
 00:44:09 --> 00:44:13: well look we can't put enough subsidies into this project  
 00:44:13 --> 00:44:16: to induce you to to build units that are you  
 00:44:16 --> 00:44:20: know running for 50% of median income tenants. But you  
 00:44:20 --> 00:44:24: know if we gave you this relief on the entitlements  
 00:44:24 --> 00:44:28: or we expedited your permit processing as as mark.  
 00:44:28 --> 00:44:32: Mentioned earlier you know with that would you then commit  
 00:44:32 --> 00:44:35: you know to including a certain number of of of  
 00:44:35 --> 00:44:38: Mer units on your site. So that's just that's one  
 00:44:38 --> 00:44:40: way I could imagine this this going.  
 00:44:42 --> 00:44:44: And and I would just add you know looking at  
 00:44:44 --> 00:44:48: the going back to the research Dallas, Phoenix, Atlanta,  
 Houston,  
 00:44:48 --> 00:44:51: all these cities Seattle they all have the we were  
 00:44:51 --> 00:44:55: able to identify with the ncreif that they're buildings that  
 00:44:55 --> 00:44:58: are in there already that are that have a rent.  
 00:44:58 --> 00:45:01: Level that's below what somebody earning 80% of MF I  
 00:45:02 --> 00:45:05: can afford. So they do exist today and it's it's  
 00:45:05 --> 00:45:09: it's coalescing maybe around an understanding that they do  
 exist  
 00:45:09 --> 00:45:12: and and how are they existing and yes some additional  
 00:45:12 --> 00:45:16: research into their age and quality and location and things  
 00:45:16 --> 00:45:19: of that nature. I would say that you know what,  
 00:45:19 --> 00:45:23: what is interesting is all this the research that we're  
 00:45:23 --> 00:45:26: doing is starting to focus more on the tenant and  
 00:45:26 --> 00:45:28: focus more on their income.  
 00:45:28 --> 00:45:31: And one thing we can learn is maybe from the  
 00:45:31 --> 00:45:34: low income housing tax credit world how because of those  
 00:45:34 --> 00:45:37: tax credits in place there is a discipline process that  
 00:45:37 --> 00:45:40: they have to go through to collecting that rent or  
 00:45:40 --> 00:45:44: that income data to you know understand are they, are

00:45:44 --> 00:45:47: they still within that category or something. And you know

00:45:47 --> 00:45:50: and frankly we're not suggesting that we want to hold

00:45:50 --> 00:45:53: back people from making more money, they should try and

00:45:54 --> 00:45:56: do it, but we are saying is if we're going

00:45:56 --> 00:45:58: to create that standard can we also.

00:45:58 --> 00:46:01: Look at some data collection which you know, which you

00:46:01 --> 00:46:04: know basically at the end of the day helps that

00:46:04 --> 00:46:07: landlord get to know their tenant better and and do

00:46:07 --> 00:46:09: it in a way that isn't, you know, hurting privacy

00:46:10 --> 00:46:11: issues or anything of that nature.

00:46:12 --> 00:46:14: I mean just by way of example, you know the

00:46:15 --> 00:46:19: the Austin Housing Conservancy Fund is focused in Austin.

00:46:19 --> 00:46:21: We

00:46:22 --> 00:46:26: were providing this moderate.

00:46:26 --> 00:46:30: Income level of housing or in our focus is on

00:46:30 --> 00:46:35: folks earning between 60 and 80%, but we also create

00:46:35 --> 00:46:39: mixed income communities where we have a market

00:46:39 --> 00:46:44: component as

00:46:44 --> 00:46:48: well. And that's basically it allows us then to provide

00:46:48 --> 00:46:52: returns to our investors that that they are tracking with,

00:46:52 --> 00:46:53: with the returns that you found. But also one of

00:46:53 --> 00:46:58: the things that that are involved is that they were

00:46:58 --> 00:47:02: buying.

00:47:02 --> 00:47:05: Existing properties and preserving them as affordable by

00:47:05 --> 00:47:09: putting you

00:47:09 --> 00:47:12: know income restrictions in place and and and and and

00:47:12 --> 00:47:18: by partnering with you know various.

00:47:18 --> 00:47:22: Your housing agencies and all we, you know, built into

00:47:22 --> 00:47:28: the legal structure of ownership that the long-term

00:47:28 --> 00:47:32: affordability remains.

00:47:32 --> 00:47:35: And you know, I think you know, you defining an

00:47:35 --> 00:47:38: asset class would actually help a lot, you know, because.

00:47:38 --> 00:47:43: It would be great to have some kind of benchmarking

00:47:43 --> 00:47:45: to see how are we doing relative to, you know,

00:47:45 --> 00:47:50: other organizations, other cities, other states.

00:47:50 --> 00:47:52: You're not only on the investment side but also you

00:47:52 --> 00:47:55: know, you know is there a way to kind of

00:47:55 --> 00:47:58: track the outcomes and the benefits of providing this housing

00:47:58 --> 00:48:01: and I know a lot, you know you got gets

00:48:01 --> 00:48:04: to the US of the SG and frankly that's very

00:48:04 --> 00:48:07: difficult. I mean I could see your role in for

00:48:07 --> 00:48:10: for UI and for others to say you know, I

00:48:10 --> 00:48:13: mean everybody kind of knows right that that if you

00:48:04 --> 00:48:08: have stable housing and kids aren't being forced to move  
00:48:08 --> 00:48:10: from school to school.  
00:48:10 --> 00:48:14: School that their educational outcome is better. Same thing  
for  
00:48:14 --> 00:48:18: health outcomes. If you've got stable housing and it's clean  
00:48:18 --> 00:48:22: and it's and it's, you know, a healthy environment, the  
00:48:22 --> 00:48:25: health outcome should improve. But I don't know how to  
00:48:25 --> 00:48:29: how to measure that. And you know, I think there's  
00:48:29 --> 00:48:32: you know you know in addition to the returns there's  
00:48:32 --> 00:48:36: also this social impact that would be great to be  
00:48:36 --> 00:48:39: able to measure and report on as well. And and  
00:48:39 --> 00:48:40: I don't, I don't.  
00:48:40 --> 00:48:44: Nate Reef measuring things on on on any SG level  
00:48:44 --> 00:48:47: yet but maybe there's a way that you know an  
00:48:48 --> 00:48:52: acre if can you know tap into the trillion dollars  
00:48:52 --> 00:48:55: to get those kind of measures as well.  
00:48:55 --> 00:48:58: And there are, there are many groups doing trying to  
00:48:58 --> 00:49:01: do that grisby and others and there are some committees  
00:49:01 --> 00:49:04: that whether it's Priya or UI or an acre if  
00:49:04 --> 00:49:06: that we're all working on that and I I might  
00:49:06 --> 00:49:09: step back from some of those things and as it  
00:49:09 --> 00:49:10: relates to moderate.  
00:49:10 --> 00:49:14: Become rental housing, I mentioned the tenant side earlier,  
but  
00:49:14 --> 00:49:18: some of the soft costs or the frictions that can  
00:49:18 --> 00:49:21: slow the process or make it difficult to bring this  
00:49:21 --> 00:49:24: type of housing on is just also some of the  
00:49:24 --> 00:49:27: government data. I mean it is and so we you  
00:49:27 --> 00:49:31: know creating a partnership with HUD to make it easier  
00:49:31 --> 00:49:34: to look at that data. They they do a great  
00:49:34 --> 00:49:37: job of putting out median family income on a year  
00:49:37 --> 00:49:40: by year basis but for the type of analysis that.  
00:49:40 --> 00:49:44: Developers and others might do and investors, they want to  
00:49:44 --> 00:49:47: look at a time series. So just simply, you know,  
00:49:47 --> 00:49:50: organizing the information that they already had in a way  
00:49:50 --> 00:49:54: that's accessible could help people look at it. The other  
00:49:54 --> 00:49:56: thing I would say is that, you know, go to  
00:49:56 --> 00:49:59: some of these cities and try and figure out what  
00:49:59 --> 00:50:03: median family income is and what is the average household  
00:50:03 --> 00:50:05: size. And it's not an easy thing to do some.  
00:50:06 --> 00:50:09: Some cities will have a very granular almost zip code  
00:50:09 --> 00:50:10: approach to it then others.  
00:50:10 --> 00:50:14: Will be larger in terms of what they're what that

00:50:14 --> 00:50:18: footprint is and that makes it very difficult when a  
00:50:18 --> 00:50:21: developer or an operator has to go in and they're  
00:50:21 --> 00:50:25: now they're zeroing in on land cost and construction costs  
00:50:25 --> 00:50:28: and what it means and in certain areas. So just  
00:50:28 --> 00:50:32: just simplifying the access to that information is can help  
00:50:33 --> 00:50:36: reduce the soft cost of of the of the market  
00:50:36 --> 00:50:38: bringing some of these to to market.  
00:50:38 --> 00:50:41: One final question, you know.  
00:50:42 --> 00:50:45: What do you think the impact of the current interest  
00:50:45 --> 00:50:50: rate environment and you know continued inflation of  
construction costs  
00:50:50 --> 00:50:53: and all would be having on, on these returns and  
00:50:53 --> 00:50:56: is it any different for Merv versus any of the  
00:50:57 --> 00:50:58: other asset classes?  
00:50:59 --> 00:51:02: So the general question on interest rates and impact on  
00:51:02 --> 00:51:04: real estate total returns?  
00:51:04 --> 00:51:07: Yeah, but by looking at murder and as a subset  
00:51:07 --> 00:51:08: of that.  
00:51:08 --> 00:51:12: Well, it's this is my opinion and not necessarily that  
00:51:12 --> 00:51:16: of my affiliations here, but I would say that look  
00:51:16 --> 00:51:20: it's simple mortgage rates went up and it it increased  
00:51:21 --> 00:51:25: the cost of a single family housing relative to multifamily  
00:51:25 --> 00:51:28: housing by 50%. So in other words.  
00:51:29 --> 00:51:32: Being a family housing now costs 50% more than rental  
00:51:32 --> 00:51:35: housing. And what that did at least in the early  
00:51:35 --> 00:51:39: stages of last year when the federal was raising interest  
00:51:39 --> 00:51:43: rates, it really increased the occupancy rates on apartments.  
And  
00:51:43 --> 00:51:45: so the year on year rent growth as of the  
00:51:45 --> 00:51:48: end of the fourth quarter had been like 10 to  
00:51:48 --> 00:51:52: 12%. That started to decelerate in the second-half of last  
00:51:52 --> 00:51:55: year, but at the same time those financing costs.  
00:51:57 --> 00:52:00: In the higher construction cost meant that it the numbers  
00:52:00 --> 00:52:04: weren't necessarily penciling out in development. So we're  
going to  
00:52:04 --> 00:52:07: see this wave of projects that had been started in  
00:52:07 --> 00:52:10: the last two years come online over the next 12  
00:52:10 --> 00:52:13: months that will help in terms of the inflation front  
00:52:13 --> 00:52:16: and you know softening those rents a little bit. But  
00:52:16 --> 00:52:19: even still we're looking at if you look at if  
00:52:19 --> 00:52:22: you go to the Fred database and you the Saint  
00:52:22 --> 00:52:25: Louis Fred database and just put in their rental vacancy



00:52:25 --> 00:52:27: rates, they'll show you that.

00:52:27 --> 00:52:31: That those are for single family and multifamily properties we're

00:52:31 --> 00:52:34: we're lows that we haven't seen since the 1980s. So

00:52:34 --> 00:52:37: in some ways the higher interest rates are making it

00:52:38 --> 00:52:41: more difficult on the supply side and and perhaps only

00:52:41 --> 00:52:45: exacerbating the issue and as a result apartments have done

00:52:45 --> 00:52:48: pretty well. Those interest rates have gone up and that's

00:52:48 --> 00:52:53: been recognized by institutional investors where the values have probably

00:52:53 --> 00:52:56: come down about 4%, but that value shift has been

00:52:56 --> 00:52:57: offset by the rent.

00:52:58 --> 00:53:00: That has occurred over the last couple of years.

00:53:01 --> 00:53:05: So it's it's it's still pretty good market for investing

00:53:05 --> 00:53:08: in apartments, but it's it's tough to build right now

00:53:08 --> 00:53:10: with the high financing cost.

00:53:10 --> 00:53:11: Any thoughts on your side, Jake?

00:53:11 --> 00:53:14: Mark just said everything that I would have said, but

00:53:14 --> 00:53:15: he said it in a more informed and.

00:53:16 --> 00:53:17: Yeah.

00:53:18 --> 00:53:21: I think we got some time for this. Any final

00:53:21 --> 00:53:25: thoughts? You know, given the research and and and and

00:53:25 --> 00:53:28: the audience that we have, you know, Jake, maybe I'll

00:53:28 --> 00:53:31: kick it off with you and then followed by Mark

00:53:31 --> 00:53:33: and then I can wrap up.

00:53:33 --> 00:53:36: Well, I guess one thing that we didn't state directly

00:53:36 --> 00:53:39: is that if, you know, if we had better land

00:53:39 --> 00:53:42: use policy all across the United States than you know,

00:53:42 --> 00:53:46: the market would be producing murder housing everywhere. And I

00:53:46 --> 00:53:49: think that's still something that we should strive for.

00:53:50 --> 00:53:53: But the reality is that a lot of not everywhere

00:53:53 --> 00:53:56: but you know number of metros in the US you

00:53:56 --> 00:53:59: just you can't build new housing that's going to reach

00:54:00 --> 00:54:03: people renting in in, in that murder part of the

00:54:03 --> 00:54:06: spectrum. And so I think as long as that's true,

00:54:06 --> 00:54:09: I think we need to be creative and think of

00:54:09 --> 00:54:13: new policy mechanisms that you know that that we've talked

00:54:13 --> 00:54:16: about that that could bring some of this more this

00:54:17 --> 00:54:18: mirror housing to market.

00:54:19 --> 00:54:20: And I would.

00:54:20 --> 00:54:23: Those are great points and I would just I would

00:54:23 --> 00:54:26: just add that this is the start of some research,

00:54:26 --> 00:54:29: not the end of the research for the industry per  
00:54:29 --> 00:54:32: se. And it can touch on other things that we've  
00:54:32 --> 00:54:36: mentioned here today such as age and quality and location  
00:54:36 --> 00:54:39: and looking more at the individual buildings. It's about how  
00:54:40 --> 00:54:43: it's the nomenclature used to help solve the issue and  
00:54:43 --> 00:54:46: get agreement just on sort of the nomenclature and then  
00:54:47 --> 00:54:50: it's also making the information transparent so that.  
00:54:51 --> 00:54:54: So the industry can come together and help solve the  
00:54:54 --> 00:54:59: affordability and I think we we create less friction if  
00:54:59 --> 00:55:01: we can do it in the context of sort of  
00:55:02 --> 00:55:05: immersed standard if you will, there will be a little  
00:55:06 --> 00:55:11: bit more operating flexibility for investors and landlords who  
would  
00:55:11 --> 00:55:15: tackle that segment of the marketplace. And but to do  
00:55:15 --> 00:55:18: that we need to reduce some of those soft costs,  
00:55:18 --> 00:55:19: the ability to.  
00:55:20 --> 00:55:24: Have an efficient approval process being able to act. You  
00:55:24 --> 00:55:28: know, working with various government agencies like HUD  
and trying  
00:55:28 --> 00:55:32: to give them constructive support in terms of how developers  
00:55:32 --> 00:55:35: or investors might want to look at that data and  
00:55:35 --> 00:55:38: analyze it to help them better identify how they can  
00:55:38 --> 00:55:40: tackle the SNES G so. And I too like I  
00:55:40 --> 00:55:44: just want to thank my support. We couldn't have done  
00:55:44 --> 00:55:47: it without David and the team at affordable Central Texas  
00:55:47 --> 00:55:50: and then the Wells Fargo Foundation team so.  
00:55:50 --> 00:55:53: Uh, it was, it was. We're very fortunate to have  
00:55:53 --> 00:55:56: participated in this. So thank you to those groups and  
00:55:56 --> 00:55:57: and to ULI as well.  
00:55:58 --> 00:56:02: Yeah, maybe this final thought from from our perspective you  
00:56:02 --> 00:56:06: know we we're addressing this issue in Austin, you know,  
00:56:06 --> 00:56:10: using an open end, you know institutional private equity fund  
00:56:11 --> 00:56:11: structure.  
00:56:13 --> 00:56:16: You know this type of thing, we think we can  
00:56:16 --> 00:56:20: expand to other major markets in Texas, but you know  
00:56:20 --> 00:56:23: your real estate is still local. And I think you  
00:56:23 --> 00:56:26: know a lot of the solutions need to be to  
00:56:26 --> 00:56:30: design to meet needs on a local market basis. And  
00:56:30 --> 00:56:34: you know I think it's incredibly valuable that the work  
00:56:34 --> 00:56:37: that Mark and Jake did to take a look at  
00:56:37 --> 00:56:40: this on on a national basis and actually prove out  
00:56:40 --> 00:56:43: the concept that this can work.

00:56:44 --> 00:56:47: You know as as an investment class but I think  
00:56:47 --> 00:56:51: there's there's a tremendous amount of opportunity to to fine  
00:56:51 --> 00:56:55: tune what you know this individual solutions could be and  
00:56:55 --> 00:56:59: in various markets in various states. So you know thank  
00:56:59 --> 00:57:02: you again to to to Mark and Jake for all  
00:57:02 --> 00:57:06: the work they did. Thank you to Wells Fargo Foundation  
00:57:06 --> 00:57:09: for for funding this and finally thank you to ULI  
00:57:09 --> 00:57:13: for allowing us to to share this information today.  
00:57:13 --> 00:57:15: Jane, I'll turn it back to you.  
00:57:15 --> 00:57:19: Great. Thank you so much. We're adjusted about time.  
Thank  
00:57:19 --> 00:57:22: you to our audience for tuning in and for your  
00:57:22 --> 00:57:26: questions today. Huge thank you to David and Mark and  
00:57:26 --> 00:57:30: Jake for your time and presenting your research. Very  
interesting.  
00:57:30 --> 00:57:34: I will be following up with an e-mail to registrants  
00:57:34 --> 00:57:37: with a link to the recording of this webinar when  
00:57:37 --> 00:57:41: it's available on knowledge Finder and that will also include  
00:57:42 --> 00:57:44: the slides that were presented.  
00:57:44 --> 00:57:46: As well as a link to the report that was  
00:57:46 --> 00:57:46: discussed.  
00:57:47 --> 00:57:49: Thank you all. Have a good afternoon.

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