

[SQUEAKING]

[RUSTLING]

[CLICKING]

ZHENGZHEN TAN: So what happened in the Winthrop Center? We have been going through extensively about the decision making. At the end of the day, you probably want to ask, how is this a successful project? And if you recall that we map on the blackboard about many stakeholder people went into that.

So I think I would encourage you to think about-- to evaluate the success of a decision or not from the different stakeholder perspectives. So let's first take a look at the developer. Winthrop Center has been decided to go to construction between 2016 to 2018. So let's see where the market is at the 2019.

So the biggest deal in 2019, in the same submarket, Boston CBD area, is 100 Summer Street. That building is a single glazed curtain wall, very broad building. And that was transacted at 4 cap. So this is the market signal saying that, in the asset market, the buyer or the market isn't really considering any green premium in the transaction, unfortunately.

And State Street, in 2019, is one of the anchor tenants Winthrop Center is trying to gain over with its competitor, 1 Congress Street. However, State Street decided to go over to 1 Congress instead of Winthrop. So I asked the head of global real estate why they decided to go for the 1 Congress Street, which is a less sustainable building, than Winthrop.

And it turns out that what drives decision is, one, the floor plate. The Winthrop is a T-shaped floor plate, while this is an oval. In terms of usability of a floor plate, this is a much better floor plate. And another disadvantage of the Winthrop is that it's predominantly a luxury condo building.

So in the design, the office part is kind of secondary. So when you're an office tenant, you feel the parking, the entrance is not as grandeur as the whole office building. So that makes the tenants really not comparing to that. And last but not least is really the rent.

At the time, Winthrop decided not to give up its rent premium because, once you sign a lease, it's 10, 15 years, it's going to hurt your performance significantly. So they are not ready to give up all the hard work and all the risks that they have been undertaking. As you know, you should be compensated for the risk. But unfortunately, they lost that, which means that the building is going to sit empty when it is finished. And it's going to be a cash drain, unfortunately.

And also, in 2020, in January, when Winthrop Center is about to close the debt from HSBC, a couple weeks later, like almost in days, the COVID hit. And the loan syndication market is non-existing. So HSBC pulled off their deal. And Winthrop Center experienced a near death that has been paused construction for almost three months.

AUDIENCE: You said, the office was going to sit vacant. But the case had said that they were over 60% pre-leased prior to construction. What happened?

ZHENGZHEN Prior to construction is 0%, if you read the case. The case says it's 0%.

TAN:

AUDIENCE: It said both. Another section, it said it was over 58%.

ZHENGZHEN Oh, are you talking about the Winthrop Center?

TAN:

AUDIENCE: Yeah.

ZHENGZHEN No, it's not.

TAN:

AUDIENCE: It's 0%?

ZHENGZHEN Yeah, it's a 0% pre-lease, yeah. So after the construction, they start to lease the building. And the State Street is one of the key tenants they tried to win over. But unfortunately, they lost it because the-- and when the State Street, I recall-- [? Cassie ?] told me State Street comes to the Passive House. They had never heard about Passive House. And they said, what is Passive House, first of all?

And then it sounds like we don't want to be a guinea pig. But then wait a minute, it's not a guinea pig. It's way much better impactful building. But unfortunately, there's a lot of education, and knowledge, and information asymmetry in the market, where the market fails to pay for this green premium.

But later, they pull back. They find a Kuwait-based solvency fund to finance the \$700-million loan. So that project was getting back to on track. And it's about to-- I think this month they are finally getting their certificate of occupancy.

And talking about the risk, there's one project we cannot skip. It's the Cornell Tech. That project is very instrumental in the decision making of the Winthrop Center to de-risk the whole bet of \$1.3 million bet. And at the time, 2018, this was the biggest Passive House, 250,000 square feet.

And when you look at the story behind the Cornell Tech, it's a partnership between Hudson and Cornell-- and between the university. So I think, right now, everyone should get it. But Passive House really, according to the president, is a real deal, comparing to LEED.

A lot of LEED, you can get away with high point, but not really means your building is much better. But Hudson has been pulled back, the last minute of a market rate project before the Cornell Tech. And the reason, according to David Kramer, is that the risk return equation when you are doing things for the first time.

That's why we blinked at the last second because we knew we would be paying a premium in construction cost and didn't think we'd be able to get higher rents. And we weren't sure we were going to make up through the savings in the operating cost because of all the uncertainty.

So Cornell Tech, the reason why the Cornell Tech behind that is that because Cornell took a significant equity stake in the building, so to de-risk the developer risk. And it was be able to keep rents affordable for student. So while the knowledge progressed, when you look at the history of--

AUDIENCE: Do you mind if I ask a question on the previous slide, which says a lot of LEED is not that impactful. This is something that I'm actually very interested in. So is there a difference between LEED Certified, LEED Gold, in terms of rent levels? Is there a big difference, would you say?

ZHENGZHEN Yeah.

TAN:

AUDIENCE: That's true. If you look at the first lecture of the green buildings, many researchers already published papers. There is a differential. Differential is a price premium. The platinum will be the highest, yeah.

ZHENGZHEN Yeah, I recall that there should be empirical study on that, yeah. So when you look at the whole idea, the, the green building movement, like starting in 2000, like the early adopters and the early movers of these-- any sustainability idea is always the corporate real estate and the MUSH segment.

TAN:

By MUSH, we mean municipal government, universities, schools, and hospitals. When you look at this diagram, the private developer, they started very, very tiny in the market penetration. Why? It's because the risk. And so when the information started to propagate-- in the economics session, we talked about when the market works and when the market fails. So this segment are the people who is going to take the risk and not underwrite the premium to promote the sustainability. And then the public sector will follow.

Now, Passive House, in 2020, Steve Winter, the Passive House specialist who worked on the Cornell Tech, as well as the Winthrop, did a study when the data comes in because, at that time, after four years, there's more and more people picking up this idea. So they studied what is really the cost premium.

It turns out the premium ranges from 1% to 8% And when you look at all these higher cost premiums, you notice that there is very inexperienced builders, which means when you do things for the first time, there is a cost premium involved, which is where the knowledge gap-- we say, the information asymmetry will really affect even your cost premium.

I believe this building is Winthrop. And the cost premium ended up being 1% because we are talking about the top notch developer who has really perfect execution. And they learned really fast working with the best consulting team in the world. And they work with the construction team who's willing to take the risk and align the interests with them.

So who do you think will be happy? In the people's map? Well, Winthrop Center-- I don't think it's the final chapter yet. As people say, this building may make money second time around. But for this time, maybe not so much. I don't think they meet their performer premium just because the market reality. But it may catch up in the second round. But who do you think will be happier than the developer in this stakeholder map?

AUDIENCE: The tenants would.

ZHENGZHEN The tenants? Yeah, the tenants would definitely pay less and get a very performance building. Who else?

TAN:

AUDIENCE: The city.

ZHENGZHEN

TAN:

Yeah, the city. That's right. So I will say one of the biggest winner is really the city of Boston or even Massachusetts. So BERDO 2.0, like the building-- City of Boston started to push very aggressively on the climate action. And as of 2020, Massachusetts has adopted one of the most stringent US building energy codes, which is called envelope backstop.

So what this building code tells us is that they are actually introducing the elements of Passive House in the building code without calling it Passive House. So the Winthrop Center case, when it goes through the MEPA process, because they have to go through these thousands pages of MEPA process, the MEPA learned-- MEPA is the Massachusetts EPA.

They learned that, oh, actually you can achieve a vision ratio of 45% to 50%. And doing a triple-glazed window, it's still workable. So then they get educated. See, if they can do that, why not other developers? From that provision, the developer has to do triple-glazed window because the regulation organize-- requires you to do so.

And in 2021, like two years before, Boston is now home to three of the largest Passive House projects in the United States-- Winthrop center-- Bunker Hill Redevelopment is a 2,700 units housing, including both market rate and affordable housing. And then Northland Newton development in Newton-- that's 800 units in housing.

And Siqi and I visited the Northland Newton Development. So we asked the developer, oh, how come you decided to push such a high level of sustainability, which is Passive House? And the developer told us they originally are proposing a LEED Platinum because they think it's already great enough. They thought the city would be happy.

Surprisingly, the city of Newton, because they hang out with city of Boston people, they come back and say, hey, we heard there's something called a Passive House. And there's a huge building in the city of Boston. And we heard that they are 80% more energy efficient than the LEED. And it's like way more-- it's the real deal. So the developer gets back to do their homework and comes out with a Passive House proposal. And that project is currently under public hearing.

And the NGOs will start to create grants to prove Passive House to-- for the massive adoption. So what we learned from how the sustainability propagates is that usually there's an idea generating from studies in the scientist or the design community. They're pushing the frontier of the innovation.

Then there's a pilot, usually in the corporate real estate or the MUSH segment, which is that they take less development risk. Then there will be followers in the wider community, like commercial real estate, like speculative development. And then there is a true game changer, what Siqi will mention in the economics is that when the regulation truly comes, then it's the market majority. That's really the scale up.

So if you look at any of the ideas of the sustainability, it always started with something-- risk, and then people get to do it, then the knowledge. The risk has been getting better. Then once the information started to propagate, the rent premium, the market starts to react to that, and then starts to reward such a building performance. And then it will become the new norm. Then we move on to the next project.

And for the Passive House, another reason I want to mention that is that in the Massachusetts stretch code, which is going to go effect, I think, July this year, is the net-zero stretch code. Passive House is going to be one of the optimum pathways towards the net-zero.

So right now, the developer is also wondering, looking into the passive house and the standing cost premium, and to see how they can help them achieve the net-zero because that's where the industry is moving towards. OK, so let's move to the 425 Park Avenue. Can you help me to change?

AUDIENCE: [INAUDIBLE]

ZHENGZHEN Oh yeah, sorry.

TAN:

AUDIENCE: About the restart [INAUDIBLE].

ZHENGZHEN Which slide? Yeah.

TAN:

AUDIENCE: Different passive buildings have different cost. So what was the most important conditional design to the tenant and the market feedback? Top three.

ZHENGZHEN So your question is that the cost premium seems to vary a lot, 1 to 5% So are you saying, why the market--

TAN:

AUDIENCE: What's the most important design to--

ZHENGZHEN Oh, design element? So--

TAN:

AUDIENCE: Tenant and the market from the feedback.

ZHENGZHEN OK. I don't think the tenants and the market are there yet. A lot of these projects are still in construction. So they are still trying to understand the cost, less about the benefits part yet. So for the cost, I think the biggest component of cost goes to the envelope, triple-glazed window.

And then you will do very special treatment of the thermal bridge of your envelope. So I think that's where the biggest money goes to. But I don't know about the tenants' part yet, which maybe we'll have more information next year, hopefully, when the tenants move into Winthrop.

AUDIENCE: What about the condo side, the LEED Platinum is that affected at all? What is the take-away from that?

ZHENGZHEN They decided to go LEED Gold for the condo part. So the condo part, because they sell it, they don't hold it, so the BERDO or 2.0 is less a headache to the landlord than to the condo association. But they are going to face fines because they didn't go for electrification, yeah.

AUDIENCE: Can you [? pull ?] [? up ?] that question because, as a developer, we also hope to pay less money. And they got positive feedback from the tenant. So if the building has a different design, maybe we can give the important conditional design to the tenant-- less money, less cost, and higher revenue.

ZHENGZHEN Yeah. Yeah, I'm sure that the community will start to propagate. And eventually, I think we'll further reduce the cost. When the vendor comes in and they feel more comfortable, and then eventually, thanks to the regulation, everyone is going to do it. So it's no longer a debate anymore. We're just going to do it.

OK, let's move to the 245 Park Avenue. So this building, again, is 10 years ago in the fall, 2012. The case is about in the fall, 2012, L&L developer, who is contemplating the design of their next project, which is in 425 Park Avenue-- it's an office-- predominantly office building with a little bit retail at the bottom.

So Levinson, the LP-- sorry, not LP. I think he's the GP, the GP developer in the case. He had a hunch that the next important trend in the urban office leases would revolve around health and wellness. So he's in a very influential decision to bet-- it's another bet-- about this \$1 billion office project and to see how they can design the vision of the project. Can someone give us some high level summary about the project character? Can you put on your name card? Does everyone have your name card? [? Mamu, ?] can you give us a project character?

AUDIENCE: Sure. [INAUDIBLE] square feet--

ZHENGZHEN Oh, what's the square feet?

TAN:

AUDIENCE: 670,000.

ZHENGZHEN 670,000? Yeah? Square feet?

TAN:

AUDIENCE: [INAUDIBLE]. So that's for office space. Then for retail space, it's 18,000.

ZHENGZHEN Yeah, 18,000 retail.

TAN:

AUDIENCE: [INAUDIBLE] to a car-parking garage.

ZHENGZHEN OK. Why has LLL decided to develop the site in 2012? Andy?

TAN:

AUDIENCE: The property was cash flow negative at the time. They had a partnership with Lehman, I believe. And they had a land lease on the land. And they had acquired it with the intention of improving the site. And then the financial crisis hit. And their partner became insolvent. They ultimately bought them out and decided to move forward with their original plan, so it wasn't such a cash drain on their investment.

ZHENGZHEN Yeah, that's right. So it's a huge cash drain. So they are very motivated to move fast. What else? What else about the situation? David?

AUDIENCE: The city zoning regulations changed. And the [INAUDIBLE].

ZHENGZHEN So how do you feel about this retain 25% of the building? Yeah, so the situation is that if they don't retain 25% of the building, they cannot achieve the highest floor square footage because of the zoning change. So in order to maximize-- and the investment is no longer attainable. So in order to keep the current economics work, they have to keep 25% of the existing building. How do you feel about that? How do you feel about keeping 25% of the existing? Bill?

AUDIENCE: It's really difficult to do that. And it's expensive. It's hard to do that structurally, and then it's just going to add to your costs.

ZHENGZHEN TAN: How much cost? Extremely difficult, right? To keep a 25% of a--

AUDIENCE: I'm not sure. I'm looking at my notes. I don't remember how much extra it was going to cost, but it was going to be significant.

ZHENGZHEN TAN: Significant, yeah. So the cost premium is 8% So let's look at the market. So to summarize the basic project character, so it's a ground lease, major cash drain. Then there's the financing uncertainty. The Lehman Brothers-- and although they are still honoring the loan, but you don't know.

And the zoning, they have to keep 25% of the structure. And it's really, extremely difficult for any engineer or designer for that. So let's take a look at the-- take a look at the market. How is the market in the New York office market? How is the market like? What's the market situation? Sorry.

AUDIENCE: They cited One World Trade center, which has 3 million square feet of office space. [INAUDIBLE] to live, work, play [INAUDIBLE].

ZHENGZHEN TAN: So you're saying there's two developments at the same time? One is the--

AUDIENCE: Yeah, both [INAUDIBLE].

ZHENGZHEN TAN: OK, sorry. Can I open another? Can you help me open another? I think I got-- I was going to pull up the map to look at the situation of the market. So [? Aria, ?] sorry, can you-- sorry, can I get this? Oh, here, yeah. Yeah, so let's take a look at the market. So how is the market like? How about the location? How do you feel the location about the project? [? Aria, ?] you say there is one development going on, which is Hudson Yard, right? [? Erin, ?] do you have anything to add? I see you raised your hand earlier.

AUDIENCE: I was going to say the same. There's a hot competition [INAUDIBLE].

ZHENGZHEN TAN: So how do you feel about the location comparing to their competitors? Becky?

AUDIENCE: So the location, it's not as prime as the financial center or the other sectors. The case also mentioned that, in that region, the rent price is not-- the average rent price is not as high as the other as well. So they have to be cautious about raising their rent too high.

ZHENGZHEN TAN: Do we have anyone from New York City who knows about the New York City office market? So if we compare these three locations, the difference is that-- so in the Winthrop Center, we're talking about it's the same sub-location, but this is not the same sub-location.

So location-wise, Ground Zero is in the financial district, is in the downtown Wall Street. So after 2000-- 9/11, a lot of the financial companies, they all moved up to midtown. So among these three locations, the Ground Zero actually is the cheapest. Downtown is the cheapest location.

Hudson Yard, it's not really meant to be an office cluster. So it's a new development. So how big is Hudson Yard? Did anyone look into that? So Hudson Yard is about 10 million, 10 million square feet. The Ground Zero, the One World Trade Center, do you know how big is that? One Trade Center is about 3 million.

So in terms of location, it's arguably one of the best locations in midtown office because midtown is usually much higher than the downtown. That's Park Avenue, very prominent address, closer to the Central Park, and at the plot of the Plaza District. So location-wise, this project has a very obvious advantage than its competitors.

And the competitors-- so this is the New York office market. 670,000 square feet isn't really that big of deal, especially when we look at the Hudson. And Hudson is almost leased up. When you check CoStar today, it's almost leased up. It's 10 million. So we are talking about a different magnitude of the market than Boston market.

So the Hudson Yard-- originally, a lot of people had doubt about it. But it turns out working very well because many financial institutes, they have been scattered around in the midtown location. And Hudson Yard, they will be able to sign very big lease from big companies because they feel that's their last chance to move into a class A building. They can consolidate their company.

Rent-wise, Hudson Yard is around 80 to-- I would say around \$80 to \$120 range, while Ground Zero is less, about \$70, \$70 per square feet. And Park Avenue is definitely towards the end of the market. OK, so this is the supply side. How about the demand side? The office market, what are the people-- What are the trends in the urban office leases?

AUDIENCE: [INAUDIBLE]

ZHENGZHEN Sorry, your name is?

TAN:

AUDIENCE: [? Keban. ?] Towards class A because of the work at home movement.

ZHENGZHEN Sorry, I need to--

TAN:

AUDIENCE: It's [? Keban. ?]

ZHENGZHEN Yeah, so--

TAN:

AUDIENCE: There's a movement towards class A buildings because of work at home environment.

ZHENGZHEN Oh, it's 2012. We're talking about 2012. So it is not--

TAN:

AUDIENCE: [INAUDIBLE]. Oh wait, so that's a long time ago.

ZHENGZHEN Yeah, so that's a long time ago.

TAN:

AUDIENCE: Nevermind.

ZHENGZHEN Yeah, so the decision was made 10 years ago. And the trend is actually not work from home, but they are moving towards health and wellness. And that's where the Cognex study comes out, which inspired the vision.

TAN:

AUDIENCE: Yeah, around that time, it was called the green building because of the sick building syndrome. It was going up. It was being calculated and very looked into by government regulations and landlords across the state. So people were actually investing quite a lot in how they were going to improve their buildings into a more attractive place, both to tenants and landlords, and also taking into account that 2012 was basically three years after the GFC. So there was actually a lot of demand [INAUDIBLE] rising economy, rising companies, companies going back into business that were previously probably broke or not doing very well during the last couple of years.

ZHENGZHEN Leah?

TAN:

AUDIENCE: And specific to this building, they were trying to attract, I believe, companies that [INAUDIBLE] hourly, so that is [INAUDIBLE].

ZHENGZHEN Yeah, that's right. So the vision, what L&L Development has, is to build a health system building in the New York

TAN: City for the reason [? Carlo ?] and [? Leah ?] mentioned. So do you think they are well-equipped to do this? How do you think that their capability? Does this opportunity, do you think, fit their investment philosophy? [? Tomar ?]

AUDIENCE: [INAUDIBLE]

ZHENGZHEN Can they do it, do you think? What do you think?

TAN:

AUDIENCE: [INAUDIBLE]

ZHENGZHEN You don't know. Who knows? What did the case say about the capability of this developer? What's your

TAN: expertise? [? Clement? ?]

AUDIENCE: So I think they had [INAUDIBLE] buildings, but they [INAUDIBLE] buildings. There [INAUDIBLE] buildings that had the [INAUDIBLE].

ZHENGZHEN Yeah.

TAN:

AUDIENCE: But therefore [INAUDIBLE] that they could do it, and [INAUDIBLE].

ZHENGZHEN So there is some uncertainty, right? It's something new. So the product vision, the healthiest building in the New

TAN: York-- we just mentioned there's a science. And then there is a regulation coming about the sick building syndrome. And from the market demand side, the demand side is the elite companies. People would look for health and well-being. That's the hunch of the Levinson, right?

From the competition side, yes, there is a hot competition. But I would argue that Park Avenue still has one of the best locations. At the end of the day is still the location the main drive change. So it's a question. Do they really need to go that healthy building? Because it's in Park Avenue. 670,000 square feet in office in New York is not really that of a big deal. So it seems that they can handle probably.

And the capability-- so L&L Holding was founded in 2000. So they have a decade of brokerage and the investment side of commercial real estate, especially in the office. So they have very experienced in understanding. So I believe they really understand office tenants' needs, besides the trend thing, because they are the one talking to the tenants on daily basis. And they also have access to capital for the long-term investors.

So it seems that they are well-equipped for that. Although, at the same time, it's a new concept. It's the science breakthrough. They are not sure about the technology, per se. So let's look at the options, what they have, and do the cost benefit analysis.

Now, Levinson will have to decide how much they are going to invest into making the building extra healthy as a landlord. What are the options they have? When you look at the performer, what are the items they are comparing against? What are the options, [? Chris? ?]

AUDIENCE: [INAUDIBLE]

ZHENGZHEN OK, so ventilation. Ventilation and the filtration.

TAN:

AUDIENCE: [INAUDIBLE]

ZHENGZHEN And the filtration. And this is related to which aspect of the building? The ventilation and the filtration?

TAN:

AUDIENCE: [INAUDIBLE]

ZHENGZHEN It's mainly the indoor air quality. I mean, the performance is the indoor air quality. And what's the other option?

TAN:

AUDIENCE: [INAUDIBLE] certificate.

ZHENGZHEN Yeah, WELL certificate. What's the alternative? If they don't do this, what's the alternative? [? Derek? ?]

TAN:

AUDIENCE: I think they were also considering CDC certification for healthy buildings [INAUDIBLE] WELL certificate that had less stringent requirements and lower cost--

ZHENGZHEN What's the name of that?

TAN:

AUDIENCE: [INAUDIBLE]

ZHENGZHEN It's the Fitwell, right? This is probably a cheaper option than WELL. What's the alternative? If they don't do this, what's your alternative?

TAN:

AUDIENCE: [INAUDIBLE]

ZHENGZHEN Yeah, they can do a green building. If you look at the LEED points, they actually have 20 points in REQ. So a lot of time, people can argue green building is also healthy building or actually included. What are the benefits of the healthy building? And what are the costs? How do you compare that? [? Yoon? ?]

TAN:

AUDIENCE: The benefits of the [INAUDIBLE]?

ZHENGZHEN Yeah, these different options they have.

TAN:

AUDIENCE: So ventilation and filtration, it's basically a performance measure. So, yes, you will get better air quality compared to outside air.

ZHENGZHEN Yeah, better air quality.

TAN:

AUDIENCE: The cost is obviously it takes more energy to run this because you're creating more friction-- yeah, like resistance.

ZHENGZHEN What's the cost?

TAN:

AUDIENCE: I don't know.

ZHENGZHEN In the pro forma, if you look into the exhibit-- if you look into the exhibit 8-- exhibit 9, what's the cost of this item?

TAN:

AUDIENCE: [INAUDIBLE]

ZHENGZHEN So this is the null. So what is the cost for adding those?

TAN:

AUDIENCE: 43.

ZHENGZHEN Jason?

TAN:

AUDIENCE: According to exhibit 9, it's a \$3.9 million operating cost increase.

ZHENGZHEN Yeah, \$3.9 operating cost. How about the initial cost?

TAN:

AUDIENCE: [INAUDIBLE] 12.3 [INAUDIBLE].

ZHENGZHEN What? What's the unit? \$12.3 what? Huh?

TAN:

AUDIENCE: Millions.

ZHENGZHEN Millions, right? OK. So what's the cost premium in terms of percentage? \$12.3 million percentage.

TAN:

AUDIENCE: 1%.

ZHENGZHEN So we're talking about 1% premium. Actually, this is combined. This is combined. And how do you feel about this 1% premium? [? Andy? ?]

TAN:

AUDIENCE: I said it in the discussion post that this seemed optimistic because, in the case itself, the projections were five times this cost premium, so anywhere from 3% to 6% just for the added ventilation, and then for the WELL certification and additional 1 to 3%, I believe, it was. This seems like an offer-- a very optimistic scenario that there's only 1% cost increase for an over 10% revenue increase.

ZHENGZHEN TAN: Yeah, so the cost aside, if you add on the WELL and also operation cost, as well as the commission cost, we are arriving somewhere between 2% to 6% cost premium. How do you feel about the cost premium? If you were L&L, do you think that's a good investment? In the case, it wrote 5% rent premium. If it were you, [? were ?] you [? in ?] [? the ?] [? right ?] that rent premium?

AUDIENCE: My concern was that, in 2012, this was the very beginning where people were even discussing indoor air quality and the potential benefits. So I thought that, given the location, the building was already at a premium. I wasn't sure, in 2012, if the added cost at that time would actually yield a 10% plus rent premium.

The building already had a lot going for it based on its location and the stunning architecture with the three-story function space that they have in the middle and in the lobby. It was difficult for me to buy into this pro forma that seemed like it was overly optimistic versus the numbers we were given in the case.

ZHENGZHEN TAN: Overly optimistic. [? Carlo? ?]

AUDIENCE: I think there's also a huge part of this that has to be taken into account in the operating expenditures. So L&L, they were not experienced in this specific type of type of building. So they were assuming that they had some OpEx premium calculated as well that was actually high. If you look into the pro forma, it goes from \$40 to \$43 million, which is around like 8%-9% augmentation in OpEx. And this is only a projection, a forecast. So you won't actually know what you're going to find. At the moment, you're actually operating this-- for example, this ventilation and filtration equipment that it's rather--

ZHENGZHEN TAN: What's the equipment exactly that we're talking about?

AUDIENCE: Innovating what?

ZHENGZHEN TAN: What's the equipment we are actually talking about? You said the ventilation and the filtration. What's the technology? If you recall in the case, what do you say?

AUDIENCE: [INAUDIBLE]

ZHENGZHEN TAN: Hm?

AUDIENCE: [INAUDIBLE]

ZHENGZHEN TAN: What's it called? MERV?

AUDIENCE: MERV 15.

ZHENGZHEN MERV 15. What's the industry standard?
TAN:

AUDIENCE: MERV 8.

ZHENGZHEN Yeah, so [? Carlos, ?] you are talking about this MERV, is the filtration. It's cutting edge. So you're saying there's a
TAN: lot of uncertainty about operation cost. Assumptions may not be that convincing. Sorry, your name is?

AUDIENCE: Marco.

ZHENGZHEN OK. Marco, yeah?
TAN:

AUDIENCE: One point they didn't mention is that, in the pro forma, they add all of the [INAUDIBLE], so that's another [INAUDIBLE] 8% rent premium [INAUDIBLE]. That could be a lot.

ZHENGZHEN Yeah.
TAN:

AUDIENCE: [INAUDIBLE]

ZHENGZHEN So there's a tenants' part. You're not sure that they are going to pay more, and then actually spend more. That
TAN: doesn't seem a good deal for the tenants. [? Ariel? ?]

AUDIENCE: They didn't really mention vacancy rate, but they did mention that there was a \$1 million per year commission [INAUDIBLE] ventilation system, which would be a cost to them regardless if they have-- so they have less of a buffer in terms of [INAUDIBLE].

ZHENGZHEN I don't think they're going to have it regardless whether they will have the healthy building. I think that's an
TAN: extra.

AUDIENCE: [INAUDIBLE]

ZHENGZHEN If they go for healthy. Yeah, I think that's included in the \$2 and \$6 premium if you add on everything. So who
TAN: else-- do you have anything different from [? Andy? ?] Because anything that they already have a premium location and in terms of the size, it doesn't seem to be a hard sale location. It's going to be a very easy sale. So it doesn't seem to make sense for that. Who do you think it makes sense to invest in the healthy building? I remember quite a few students will say it makes sense. Celine?

AUDIENCE: [INAUDIBLE] because most of the [INAUDIBLE] the performance of the [INAUDIBLE] to address that [INAUDIBLE] environments [INAUDIBLE].

ZHENGZHEN So I think you're saying the science seems to be pretty rigorous. It's like they have already proof. Although it's in
TAN: the lab, but it's proved that the performance-- and the L&L, if they are the one talking to the tenants on daily basis, they should know the market really, really well. So they are the ones believing that this is going to sell. How about the rent premium? How do you feel about this rent premium in this pro forma?

AUDIENCE: [INAUDIBLE] I think this [INAUDIBLE], like, how can the improvement of the [INAUDIBLE] can recoup [INAUDIBLE]?

ZHENGZHEN TAN: OK. So you say, OK, the story, the science looks seems nice. But then you are still unsure. Derek?

TAN:

AUDIENCE: Yeah, I think that it's a pretty compelling argument because, especially given the data that's recently come out, I think it's pretty easy for the tenants to go to the health insurance providers and recoup the rent premium just by negotiating better rates on health insurance. And then any additional savings in terms of employee retention or absenteeism is kind of just going to be pushed to the bottom line.

ZHENGZHEN TAN: So, Derek, you think the science is pretty solid and you are confident that, if you go to the tenants, they should buy into that?

AUDIENCE: Well, I think it's good enough to put it as a point of negotiation with the insurance providers. And I think that they would probably find it to be--

ZHENGZHEN TAN: So then how about-- because if you think about this, they already have an 8% cost premium to build that because the structure difficulty. And for 1% of the premium or 2% to 6% if we add on into the operation, as well as the WELL certification-- WELL is very expensive certificate. So how do you feel about adding this money into green building? Because they originally designed for gold. How about updated to platinum? Because it seems that there's less risk. People understand about it. And it actually includes the IEQ. How do you spend this money onto elsewhere? Bill?

AUDIENCE: [INAUDIBLE] we've been talking about as a theme in this class is the lack of continuous examination with LEED and the fact that it's just a checklist and it's one and done. I think something we haven't talked about here is the continuous commissioning, which I think is huge, to come back every year and ensure that the health benefits are actually continuing rather than just being designed and then let go forever. I think that would really be a huge selling point for a sophisticated tenant who's really caring about the health of their employees, to say, hey, we're going to come back and check that all the time. I think that'd be a big selling point.

ZHENGZHEN TAN: Yeah, I hear that. We mentioned the tenant stores a lot. Who do you think is the tenants in Park Avenue?

TAN:

AUDIENCE: [INAUDIBLE]

ZHENGZHEN TAN: Ultra-premium, like a hedge fund? Yeah, the Park Street is the banks, is really the financial industry. So you are saying that this commissioning-- actually, they are very sophisticated. So if we look at this, look at this healthy building that Juan shows on his lecture, this is the argument where the scientist, after they did a cognitive study, they put this into the balance sheet and arguing that there is four types of value add from the revenue-- rent premium to payroll, rent, utilities, and other expenses.

So there is some solid numbers behind that. But then nevertheless, it's still a lot of assumptions. If you look at this reading from Muldavin and Chris Mier, they talk about this is the performance. They come up with sample tenants. And the assumption is that, if it is a 1,000 employees, it seems like where the Park Avenue-- if you look at-- they probably look at that size of the company, 1,000 employees, total square footage.

They underwrite four types of the number for the gain is the total-- so what they did is the health insurance reduction, 10%, as Derek mentioned, productivity increase. Getting back to the question, your earlier question, how do you actually measure the productivity?

Based on the lab study, I think they underwrite about 1.5% about the productivity increase. Then turnover reduction, why it is important? Because it's very expensive to hire people, probably three months salary and the absence reduction. So what they calculate is they come out with this IRR huge. If they did three scenarios, sensitive analysis, even looking at the lowest scenario, 0.5% productivity increase, you are looking at IRR 298 and [? NVP ?] \$5.6 million. So I want to do-- yeah, [? Qingyuan? ?]

AUDIENCE: I'm wondering, [INAUDIBLE] if we have, in this kind of study, we have [INAUDIBLE] based on the research that they've done [INAUDIBLE]. But how do you convince attendants that by moving your employees [INAUDIBLE] actually [INAUDIBLE].

ZHENGZHEN TAN: That's a very good point. I don't think they have. But *this* form, I'm sure that they probably will have this form, but it's not the empirical data. It's assumptions. And in this case, I think it's corporate real estate.

AUDIENCE: [INAUDIBLE]

ZHENGZHEN TAN: Yeah, it's after that. Yeah, and even that, it is assumption. It's assumption data. So I want to do a little poll. Now, I want you to put into the shoes of the tenants. Imagine if you are Citadel or a hedge fund that this landlord is trying to pitch you, to sell you. And they show you this pro forma, as well as a cognitive study. And they may invite Juan over to give you a lecture about the science building.

And I want to do a poll. Is that three options? Number 1 is that, yes, with no reservation. I believe in the science. B is that, yes, with minor reservation. And C is that. I highly doubt it, which means I don't buy into it. Raise your hand if you pick A, yes with no reservation. What? I think we need to invite Juan back to give you a better lecture on the science. How about B? How about C?

OK, there's something called the law of the innovation of diffusion. This is a law. So what the law tells us is that-- so every one of us sits somewhere at certain times on this scale. What the law told us, the law of innovation of diffusion told us that if you want a success, a mass market success of an idea, you need to achieve this tipping point, which is about 15% to 18%. And then the system will tip.

So if we set all the segments, what we get is that-- so 5%-- 2.5% of our population are innovators. They are the people called the tech enthusiastic. They are the people who are waiting in the line for hours to get the first iPhone while you can perfectly get it a week later.

Then you have the next segment, 13.5% of the people is called early adopters. So they are also called visionaries. So they usually act on the hunch, which analysis-- oh, there's a hunch. So they are willing to bet \$1 billion on a hunch. Well, you don't really have this quantitative empirical data to show that. And 34% of our population is called early majority.

Those are the pragmatic people. They make decisions based on something quantifiable. And you have to show me it. It's not assumptions, scientific, lab study. Another 34%, late majority. 60%, is called lagger. Those are conservatives. Even more conservative than that, they won't try something new until someone else tried it. They think innovation is the bleeding edge. They don't believe in the cutting edge. And then the lagger, finally, they have to do it because you don't have any choice.

So this half of our population really won't move until the regulation says yes, until your competition is become new norm, you have to do that. So looking at our-- unfortunately, we don't have innovators in this classroom. I think someone up here, 14 of you, may become early adopters, I think. So actually, this sample class actually followed the law of the diffusion of innovation. Jason?

AUDIENCE: I mean, I just find the way the question is constructed, [INAUDIBLE] hypothetical [INAUDIBLE]. And he's showing you how they're going to make money off of that, off of you. Of course, [INAUDIBLE].

ZHENGZHEN But what if they show you the cognitive study?

TAN:

AUDIENCE: Well, they'd be like, oh, did you pay for this study?

ZHENGZHEN Actually, it's a peer reviewed scientific journal. You cannot pay for that.

TAN:

AUDIENCE: It's just like the way that it's being presented. Your landlord is the one showing you this.

ZHENGZHEN Then can you think about a better way to educate your tenants, if you don't show them the study?

TAN:

AUDIENCE: I mean, I know a lot of [INAUDIBLE] will try to [INAUDIBLE], how to [INAUDIBLE].

ZHENGZHEN What do you mean by back it up?

TAN:

AUDIENCE: [INAUDIBLE]

ZHENGZHEN Yeah, that's understand--

TAN:

AUDIENCE: [INAUDIBLE]

ZHENGZHEN PR, yeah, they can publish some media papers, say quote a Harvard study, MIT study, instead of saying, I show

TAN: you this. Bill?

AUDIENCE: How does this factor in for age? Because I feel like, [INAUDIBLE], as you get older, you tend to be conservative and especially with technology. [INAUDIBLE], everyone in the same age group?

ZHENGZHEN That's an important point. Let's get back to that. And that's why it's spread in this document. And so what they

TAN: think, I think-- I think, Jason, what you mentioned is that I believe 9 out of the 10 people will just laugh at you. But you may get one person. You only need 1 out of 10 that they trust their gut feeling. They say, you know what?

Actually, it's a peer reviewed journal. It's not that you have some fluffy consultancy report, which I agree, this part is kind of a consultancy report. They're written by consultant people. But this is not, right? But if you tell Siqi, [INAUDIBLE], Siqi is like the scientific journal. There's no way you can sway the economist data. So in terms of rigorous, I agree, there's rigorous in the scientific peer-reviewed journal instead of the gray literature.

But what informed this project is that all you need to get is this 1% of one people. And what L&L decided to do is that they decided to go all in. What do you think is their game plan? By the way, if you haven't read-- if you haven't read-- there's Geoffrey Moore, *Crossing The Chasm*. I highly recommend the book. That a book is a must-read for any entrepreneurs who are launching a new product.

And what Geoffrey Moore called this gap is that you have to get it, is that the chasm. There are over 600 green building certificates around the world. But we only know a handful of like LEED. And why have we never heard about another 500? Because they never cross the chasm. And the wider chasm is so difficult to cross. Actually, 90% of the companies fail at this point. And they couldn't cross the chasm. And why it's so hard to cross the chasm?

AUDIENCE: [INAUDIBLE] and then, next, you have to have enough early adopters. And they can form the non-adopters, [INAUDIBLE] and then [INAUDIBLE] strategy to get more people and customers [INAUDIBLE] so that initial energy [INAUDIBLE].

ZHENGZHEN TAN: Yeah, that book is actually for the marketing executive. It is extremely demanding in terms of the capability of the marketing strategy. And that's why 90% of the startups fail at this chasm. And why it's so difficult is because of the dilemma that we talk about. You can't really convince this early majority until you have enough data. But if you don't have enough early adopters, you won't have data. So that's the juggle that you have to tackle in your marketing strategy.

Now, getting back to their game plan, they decided to target, as Juan mentioned, the important belief you cannot change those people. It's very hard to change those people, to change people's belief. It's very hard. You can only find those who believe what you believe. So what do you think it tells about their leasing strategy? Bill, you mentioned the age. What else can inform? Who is your tenants? Who do you think is likely your tenants? You're talking about maybe a younger age, younger, firm, startup? But do you think they actually care? Because if I'm a startup, I'm struggling to raise money, making money. Do you think I actually care to pay a premium to stay in Park Avenue? Wilson?

AUDIENCE: [INAUDIBLE]

ZHENGZHEN TAN: How about the size of the company? I agree with you. So when you look at their floorplate, it's about 14,000 square feet. So imagine if you are a 20-people law firm, are you going to care? Probably not, right? But who is going to care is probably going to-- they probably aren't going to target this 20-people smaller firm. They are going to look at a full, whole plate signup. And it's most likely in the finance industry.

How about their leasing strategy? If they find their tenants, say Citadel, actually end up being one of their anchor tenants. It's a hedge fund, fit the profile perfectly well. Citadel, I think, at the time probably needed 200,000 square feet, so a space they can actually grow into that seems a perfect space, probably not for JP Morgan because JP Morgan end up leasing 2 million because they are too big, They're very, very big. So Citadel seems to be a very ideal size tenants for them. Who do you think will be the leasing pitch? Who actually makes the decision in the office lease from the tenant side?

AUDIENCE: I don't want to be obnoxious, but I don't understand the A0 part, which I think is actually important to understand because Citadel does not pay for their rent. The LPs pay for the rent. So Citadel will go for the most expensive office. And the LPs get a little bit annoyed about it.

ZHENGZHEN TAN: That's right. Yeah, Citadel, this hedge fund, those LP they pump tons of fees on them. That's why they are willing to do that. And I'm sure--

AUDIENCE: [INAUDIBLE] A0.

ZHENGZHEN TAN: What do you mean A0?

TAN:

AUDIENCE: [INAUDIBLE] why A0?

ZHENGZHEN TAN: Why didn't you pick that?

TAN:

AUDIENCE: Because I'm an LP.

ZHENGZHEN TAN: Oh, you're an LP.

TAN:

AUDIENCE: [INAUDIBLE]

ZHENGZHEN TAN: So you're not happy that your GP--

TAN:

AUDIENCE: If I were a GP, I would have gone for A. I think all GPs would have gone for A.

ZHENGZHEN TAN: That's interesting. But does LP--

TAN:

AUDIENCE: [INAUDIBLE] building that's why it's full.

ZHENGZHEN TAN: But actually LP, when you make decision which GP you go to, do you go to their office? If they live in a fancy office, do they impress you as LP?

AUDIENCE: It's not up to us. We have to pay them whatever they ask us.

ZHENGZHEN TAN: But you're not happy if they go to a more expensive because it's all your money.

TAN:

AUDIENCE: Yes, I'm unhappy. That's very true. But we have a very unattractive office. But we're paying for a very fancy office for them. And that said, I think you mentioned John Hancock Building as one of the nicest buildings. They have the highest building. They have the top floor ArcLight Capital, [INAUDIBLE], but beautiful office. We don't get anything out of it, but we have to pay for it.

ZHENGZHEN Yes, That's actually an interesting point. I was talking to one of the local PE firms. They went to a very fancy view, very impressive view building and moving from a less impressive building. And I said, why do you pay for that?
TAN: It's probably like 20%, at least in premium. They said, because we want to impress our LP. It sounds ridiculous that the better view is, in fact, the skill, the investment skill--

AUDIENCE: I'll tell you what the reason is. It's because the LPs are paying for it, not them.

ZHENGZHEN Yeah, the LP is paying for that. But then in order to get the LP, they need a granular office, healthy office to
TAN: impress their LP.

AUDIENCE: Well, I think it's because they aren't paying for it. That's why.

ZHENGZHEN So who do you think is making the decision in Citadel or any financial institute? It's the leasing people. Do you
TAN: think the leasing people care about those-- payroll cares about the rent? Or they may care about the utility. But do you think they care about health insurance? How about the split incentive within the tenants' organization? Carlos, what do you think? You are in the negotiation for the lease in the office section. If you were into that and you are leasing, you are the facility, usually the facility people, they are probably older people. And when you do that, if they show you this, do you think you will care?

AUDIENCE: As tenants?

ZHENGZHEN Yeah, as tenants.

TAN:

AUDIENCE: I mean, taking into account that, for example, if I do come from some place that I do need to have a premium office space to attract new clients, I will most certainly go. It does not affect my revenue at all. But for example, as my background [INAUDIBLE], I'm in a business company, we need premium space. It would not change our revenue at all. So we wouldn't even consider a premium office space unless you have a foreign investor that has a green mandate that we have to spend x amount of our OpEx or CapEx investments, yeah, in green buildings or in green assets.

ZHENGZHEN I agree with you. So if you are, say, a construction firm or, say, a law firm, maybe it's less important than the LP
TAN: and GP. So this is most likely actually going to be someone who has an LP.

AUDIENCE: [INAUDIBLE] the package [INAUDIBLE] always lack something [INAUDIBLE]. And [INAUDIBLE] always [INAUDIBLE].

ZHENGZHEN Yeah. So in terms of time, I think I--

TAN:

AUDIENCE: [INAUDIBLE]

ZHENGZHEN

TAN:

Yeah. So in terms of the time, I think let's find out what happened with the case. You are right. I think, in the leasing strategy, it's very important to engage with people who care about the balance sheet, about the tenants' cost, which they are typically going to be your HR person and going to be your CFO. And when you're leasing, how do you engage those people beyond the facility [INAUDIBLE] people? That's something that you need to consider.

And let's find out what happened. [INAUDIBLE]. So what happened is that, actually, because of-- when you look at the adoption of the WELL, they started 2014. And 2016 is when they make the decision. So when you see this adoption, it has been accelerated because of indoor air quality and for all the reasons that Juan's lecture has mentioned, that they were being massive [? mack ?] exception.

And then the happy story is that they did break the record of the most expensive office lease in the NYC history. 300-- like the rumor is about close to 300 per square foot. But that's the penthouse level. Citadel originally signed a 200k. Again, someone has the LP. And they later extended to 300. But they still have half of the building to fill.

In 2020, the building is actually in financial distress. Unfortunately, the LP lost all their money. And LP, in this case, is the Japanese money. The reason why is because 25% of the office structure has proved to be extremely difficult. So the project was delayed for over a year. That cost them \$100 million.

And I think BXP is trying to buy the deal from them. But then later, Blackstone, I think, salvaged the project. But the equity was wiped out, unfortunately. But that's not something to do with the healthy building. It's just the risk of this project.

And in the recent thing-- and now, let's get back to the final question. Is this a successful decision? So in 2021, you see a lot of news in the current about the office sector. They are in a lot of distress. But there is a flight to quality trend, apparently, in the top tier office sector right now.

And one of the new data shows that in 5 US CBD, in the past two years, there are 7 million square feet of increase in the demand for the ultra-healthy, ultra high quality building, while the demand in the lower quality building, which is usually cheaper, class B, is down by 25,000,000 square feet. So there's a winner and a loser in this project.

And again, we won't have time to discuss this. But I encourage you to think about will this building strategy work in a wider market? And finally, I want to wrap up this case is about the science and the performer as well as if you go for that-- go for that risky play, what is your strategy to engage your tenants and the market? That's all.

[APPLAUSE]

Thank you.