MEMORANDUM

Real Estate Initiative
June 2019

Alumni & Friends

This memorandum is intended to inform and update you on the progress of the real estate initiative at the University of Chicago Booth School of Business.¹ Your suggestions and criticisms are encouraged.

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¹ For earlier memos, please see 2017 Real Estate Initiative and 2016 Real Estate Initiative.
BACKGROUND

This is my 12th year at Chicago Booth. As this annual memorandum has remarked on several earlier occasions, we have witnessed significant swings in commercial real estate values over these dozen years. Moreover, the current trajectory in property values and capitalization rates has caused much consternation in the commercial real estate industry. We now find ourselves in an era in which prices have never been this expensive: values are approximately 30% higher than before the Global Financial Crisis (GFC), and capitalization rates (=4.4%) are at their all-time recorded lows. (We would collectively feel better about today’s pricing if income growth had kept pace with prices; it has not.) The chart below shows, among other things, the path of (unlevered) commercial real estate values and capitalization rates over the past 41 years:

NCREIF INDEX—MARKET VALUES, RESCALED NOI, AND CAPITALIZATION RATES BASED ON A $100 INVESTMENT FOR THE PERIOD 1978 THROUGH 2018

The surge in pricing has fueled concerns regarding yet another “bubble.” As a matter of perspective, today’s capitalization rates are approximately 260 basis points below their long-term average (=7.0%). This difference calls to mind Alan Greenspan’s quote following the GFC:

“… I define a bubble as a protracted period of falling risk aversion that translates into falling capitalization rates that decline measurably below their long-term, trendless averages. Falling capitalization rates propel one or more asset prices to unsustainable levels. All bubbles burst when risk aversion reaches its irreducible minimum, i.e., credit spreads approach zero, though analysts’ ability to time the onset of deflation has proved illusive.” [emphasis added]

The current rise in property values (and concomitant decline in capitalization rates) also bears a remarkable resemblance to the era preceding the Global Financial Crisis (now a decade ago) in yet another respect: the increase in the industry’s estimated “dry powder.” Here is one estimate of the amount of available buying power (against the backdrop of fund-raising):

**US REAL ESTATE CAPITAL-RAISING AND BUYING POWER ($B)**

![Graph showing capital raised and buying power over time]

*Buying power is calculated as cash plus estimated incremental debt.*

Source: Real Estate Funds Flow, Green Street Advisors, April 2019.

The more-or-less persistent climb in dry powder since the GFC bears a strong resemblance to the pre-GFC era. Many industry commentators view this dry powder as supporting today’s prices. While I don’t entirely disagree, I do believe that this dry powder will quickly move to the sidelines should prices start to roll backwards. (Clearly, pre-GFC dry powder did not stave off the fall in property prices once the GFC was upon us.) In that environment, few firms—particularly lenders—will want to be in the position of trying to “catch a falling knife.” However, I do believe the existence of the dry powder may ultimately backstop a downward market correction and accelerate its recovery.

As indicated in last year’s memorandum, much of the justification for today’s high prices is based on the low level of interest rates. In a 2017 paper (“Some Thoughts on Real Estate Pricing,” published in the Pension Real Estate Association–sponsored Special Real Estate Issue of the *Journal of Portfolio Management*—see the Appendix), I suggested that—provided the real estate space markets are operating at or near equilibrium—real estate investors ought to pay attention to future movements in the real rate of return (e.g., the Treasury Inflation-Protected Securities, or TIPS, market), rather than the nominal interest rate. Increases in the required real rates of return are likely to adversely affect real estate valuations (whereas inflationary pressures are likely to be helpful). While TIPS rates have rebounded from their depths following the GFC, the five-year rate has oscillated between its long-term average and zero over the past four to five years.

A recent review of the “forward” curve for such real rates suggests that future rate increases will be modest. (Of course, the forward market is an imperfect predictor of future realized rates.)

But all this is perhaps too pessimistic. Over the 41 years of the NCREIF Index, property values have risen at a nominal rate of approximately 4.1% per annum (and at a real rate of ≈0.6%). Consequently, well-diversified long-term real estate investors—utilizing moderate levels of (well-laddered) leverage—have done even better. More recently, it is difficult to imagine that anyone who has broadly invested in commercial real estate since 2010 has not done exceptionally well.
Given the 2007-08 financial crisis, the historical average may not be reflective of the equilibrium level. For example, the five-year TIPS yield averaged 1.55% through 2008.

REAL ESTATE LAB

The essence of this (quarter-long) class\(^2\) has typically seen the students tackle a real-world transaction or portfolio, concluding with a presentation to the senior managers from the participating firm(s), at which point, the students receive feedback on the merits of their work.\(^3\) In (the fall of) 2018, the Real Estate Lab took a slightly different direction: The students were divided into two teams and asked to consider exploiting a perceived real estate mispricing (that they identified) through the publicly traded REIT market, by proposing a (hypothetical) $100 million long/short portfolio. One of the teams suggested that the explosive growth in real estate–related technology is not fully reflected in the public REIT market, and consequently, they suggested a portfolio that is long data-center and cell-tower REITs and is short the overall REIT market as a way to exploit this perceived mispricing.

The other team suggested that the still-nascent single-family-rental operation is not fully valued while expressing their concern that high-end urban multifamily projects in “gateway” markets have been “priced for perfection.” Consequently, they suggested a portfolio that is long the single-family-rental REITs and is short those multifamily REITs with significant exposures to gateway markets.

\(^2\) Admission to this class is restricted to those students who have previously taken Real Estate Investments I and Real Estate Investments II.

\(^3\) As two recent examples, please see the 2017 Real Estate Lab Findings (which asked the students to [hypothetically] deploy $1 billion of equity capital in the US industrial market) and the 2016 Real Estate Lab Findings (which asked the students to conduct an asset-repositioning strategy for Washington Prime Group [WPG], a New York Stock Exchange–traded, retail-oriented real estate investment trust [REIT]).
We were fortunate enough to have several industry practitioners—Michael Bellisario, ’16 (Baird), Keven Lindemann (S&P), Adam Metz (ex-Carlyle), John Schreiber (ex-Blackstone), and Nick Tannura, ’90 (Green Street)—judge the teams’ presentations. The judges all complimented the depth and creativity of the students’ analyses. However, the students benefited mightily from the judges’ insights and perspectives, reinforcing earlier-learned lessons that the market’s efficiency makes it very difficult to profitably exploit perceived market mispricings.

REAL ESTATE CHALLENGES

The Real Estate Lab is an extended version of the “challenges” now offered by a number of academic institutions, including the universities of Miami (Florida), Maryland, Massachusetts Institute of Technology, North Carolina, Northwestern, and Texas, as well as others offered by industry participants: Altus, ARGUS, CoreNet, the Commercial Real Estate Finance Council (CREFC), and ULI Hines. (Note: Booth does not send a student team to each of these events each year; generally, we participate in about 75% of these events.) The general format of these challenges is as follows: The institution circulates a case study to the participating teams, each of which is given a week or so to prepare its solution, and then the teams fly to the host school to present their solutions to a panel of third-party judges. Some schools devote significant resources—certainly more than we do—to participating in such events. Nevertheless, the Booth students tend to do quite well in these competitions. One recent example is the first-place finish of the Booth team (which split the $20,000 prize money among the four participating students) in the inaugural Real Estate Debt Case Competition hosted by CREFC and its academic partner, Georgetown. While most of these competitions focus on various aspects of the equity side of the industry, this is the first to focus on the debt side—including high-yield (or mezzanine) debt. To my way of thinking, this evidences again the wonderful intellectual breadth and dexterity of our students. The highly nuanced aspects of structured finance are yet another area where our students tend to excel.

STUDENT EMPLOYMENT

As noted in earlier years, the students’ enthusiasm for our real estate class offerings waxes and wanes with the real estate cycle. With the passage of time, the real estate markets have recovered their precrash peaks and then some, and correspondingly, many of our students have enthusiastically embraced a career in commercial real estate. As also indicated previously, the number of real estate–related job opportunities for our students has been on the upswing. Over the past few years, students have taken (full-time) positions with AJ Capital, Angelo Gordon, Bentall Kennedy, John Buck, CBRE Global Investors, CIM, Citibank (real estate investment banking), Colony Capital, Equity International, Goldman Sachs (real estate investment banking), Green Street, Greystar, Heitman, HFF, Hines, Jones Lang LaSalle, Lionstone, Mesirow Financial, Related, Sterling Bay, Tishman Speyer, Ventas, etc. Some students have also founded (or cofounded) their own firms. And, a number of firms have also graciously hosted one or more summer interns.

Helping in these recruiting efforts have been “real estate treks” (i.e., student visits to a number of real estate companies) in a given city (including Chicago) over the current and past several years, but most typically in New York. Participating firms have included: Angelo Gordon, Blackstone, Brookfield, CBRE, CPPIB, Five Mile Capital, Goldman Sachs, Gryphon, The Habitat Company, HFF, Kilroy Realty, KKR, Related, Silverpeak, Starwood, Sterling Bay, and Tishman Speyer.

If interested, please the 2018 Real Estate Lab Findings for further details.

That said, the depth and breadth of the public REIT market suggests that this may be a particularly compelling environment in which students and alumni can utilize Booth-like skills. As one perspective, consider that, in 2018, six Booth alums were CEO and/or president of a publicly traded REIT: Steve Budorick, ’88—Corporate Office Properties Trust, Mike DeMarco, ’87—Mack-Cali, Phil Hawkins, ’80—DCT Industrial Trust, David Helfand, ’90—Equity Commonwealth, John Kessler, ’90—Empire State Realty Trust, and Summit Roy, ’01—Realty Income. (Note: DCT merged with Prologis toward the end of 2018.) And, of course, consider the success of Mike Kirby, ’85—Green Street.
Should your firm consider hiring one of our fine students, please visit the electronic resume book of current full- and part-time students assembled as part of our most recent conference.

**REAL ESTATE CONFERENCE**

Last fall, we held our 12th annual Booth Real Estate Conference. These events have been well attended (averaging more than 200 people) and have been of high quality—as perhaps best exemplified by our keynote speakers and participating faculty members:

The 2018 conference was notable in several respects: Our keynote speaker, Penny Pritzker, was her usual insightful self—full of wonderful perspectives about her career in business and in politics (38th US Secretary of Commerce), and she is also helping to spearhead the P33 project (examining how Chicago can become a first-tier tech center). Our academic speaker was Linda E. Ginzel, who conducted a brief tutorial, with the conference attendees’ participation, on negotiating skills—something near and dear to all real estate professionals. A link to this event’s topics, speakers/panelists, and conference brochure is found in the Appendix.

### CHICAGO BOOTH REAL ESTATE CONFERENCE

<table>
<thead>
<tr>
<th>Year</th>
<th>Keynote Speaker</th>
<th>Academic Speaker(s)</th>
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<tr>
<td>2018</td>
<td>Penny Pritzker, PSP Partners</td>
<td>Linda E. Ginzel</td>
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<tr>
<td>2017</td>
<td>Sam Zell, Equity Group Investments</td>
<td>Eugene F. Fama</td>
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<td>2016</td>
<td>Roy March, Eastdil Secured</td>
<td>Sanjog Misra</td>
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<td>2015</td>
<td>Debra Cafaro, Ventas</td>
<td>Jonathan Dingel</td>
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<td>2014</td>
<td>David Twardock, ex-Prudential Mortgage</td>
<td>Nicholas Epley &amp; Amir Sufi</td>
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<tr>
<td>2013</td>
<td>John Schreiber, Blackstone</td>
<td>Randall S. Kroszner</td>
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<tr>
<td>2012</td>
<td>Tom Barrack, Colony Capital</td>
<td>Luigi Zingales</td>
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<td>2011</td>
<td>David Simon, Simon Property Group</td>
<td>Scott Meadow</td>
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<tr>
<td>2010</td>
<td>Neil Bluhm, Walton Street Capital</td>
<td>Steven Neil Kaplan</td>
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<td>2009</td>
<td>Sam Zell, Equity Group Investments</td>
<td>Kevin M. Murphy</td>
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<td>2008</td>
<td>Jonathan Kessler, Empire State Realty Trust</td>
<td>Erik Hurst</td>
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<td>2007</td>
<td>Joseph L. Pagliari Jr., Chicago Booth</td>
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I’d also be remiss if I were not to thank this year’s sponsors: DLA Piper, Draper and Kramer, and Eastdil Secured.

Interestingly, her brother had won the Illinois governorship race earlier that week.
ALUMNI INVOLVEMENT

There are also a great number of alumni to thank for the generous giving of time, insights, and resources. First, I have to again thank Bernie Ocampo, ‘05, head of the Chicago Booth Real Estate Alumni Group (ChicagoBoothREAG.org), who has provided ongoing support to a variety of real estate–related initiatives, including creating a forum for alumni to share ideas and resources and helping students identify various job opportunities. Second, I have to thank and acknowledge Eteri Zaslavsky, AB ’99, MBA ’04; she is the leading force behind our annual real estate conference and many other Chicago-based events. Third, let me acknowledge Mike Kirby, ’85 (cofounder of Green Street), who has helped me in a variety of intellectual/research pursuits, has hired Booth students to his firm, and continues to promote the deep insights he learned more 30 years ago as an MBA student here. Fourth, let me also thank a number of Chicago-based alums, including Bruce Cohen, ’89, Debra Cafaro, JD ’82, Brian Finerty, ’03, Ari Glass, ’06, David Helfand, ’90, Ed Ryder, ’92, David Schwartz, ’90, and Camilo Varela, ’10, who have participated in a great number of real estate–related activities and events. Fifth, let me also thank a number of alums located outside Chicago, including Keith Breslauer, ’88, Mike DeMarco, ’87, Al Nickerson, ’93, Tyler Rose, ’86, and Bill Stein, ’94, who have been guest lecturers and, more generally, been very generous with their time when approached by our students (and/or me). And sixth, any listing such as this runs the risk of significant omissions; this is the case here as well.

EXECUTIVE LUNCHEON SPEAKER SERIES

A few years ago, we started the practice of hosting a series (generally, once a quarter) of luncheons with prominent real estate executives. These are informal affairs, held at Gleacher Center, with approximately 15 to 25 students in attendance. The executive makes a few remarks for approximately 20 minutes and then takes student questions for approximately another 20 minutes. This year, Michael Berman (ex-GGP) and Jay Weaver (ex-Walton Street) graciously joined us. Past speakers have included Stephen Barter, Keith Breslauer, ’88, Debra Cafaro, JD ’82, Bruce Cohen, ’89, Mike DeMarco, ’87, Bruce Duncan, ’75, Andy Ebbott, ’80, Steve Fifield, ’72, David Helfand, ’90, Andrew Miller, ’83, Quintin Primo, David Twardock, ’82, et al.

In addition to the luncheon series, there are also student-organized “lunch & learn” sessions hosted by various companies (generally hosted in their offices); this year’s participating firms included: Blue Vista, Greystar, HFF, Hubbard Street, LaSalle Investment Management, Related, and Ventas.

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8 While a graduate of the university’s law school (not its business school), she is clearly a kindred spirit.

9 The school’s protocol is to have separate student clubs for full-time students and part-time students. That said and to their mutual credit, the two clubs typically work hand-in-hand. As but one example of their joint dedication and competence, the part-time club was awarded the School’s Best Career-Focused Programming designation.
BOOTH ALUMNI IN THE REAL ESTATE WORLD

As I have noted on several occasions, the students and I are the beneficiaries of so many Booth alumni occupying positions of executive prominence in the area of commercial real estate. I continue to marvel at the students (now alumni) who choose to come to Booth and what they are taught while here—clearly, it is a powerful combination. This impressive alumni network includes:

THE WHEEL OF GOOD FORTUNE:
BOOTH ALUMNI IN KEY POSITIONS AT SELECTED REAL ESTATE FIRMS

REITS:
- Equity Commonwealth
- First Industrial
- Green Street
- Mack-Cali
- Ventas

Developers:
- Fifield
- Oxford Capital Group
- Ridge Property Trust

Mortgage Lenders:
- Bank of America
- Merrill Lynch
- Prudential
- Wrightwood Financial

Investment Banks/Capital Markets:
- Bank of America
- Merrill Lynch
- Eastdil Secured
- Goldman Sachs
- Morgan Stanley

Advisors/Core:
- BlackRock
- CBRE Global Investors
- LaSalle Investment Management

Advisors/Value-Add:
- Blue Vista
- Cabot Properties
- Heitman
- Waterton

Advisors/Opportunistic:
- Apollo
- Blackstone
- CIM
- Five Mile Capital
- Fortress Investment Group
- Greenfield Partners
- Jaguar Growth
- Patron
- Pearlmark Real Estate Partners
- Silverpeak
- Singerman Real Estate
- Starwood Capital Group

As with the earlier listing of contributing alumni, this list also runs the risk of significant omissions. So, please call them out. (Ultimately, it may be worth considering creating a web-based version of this wheel, with links to the prominent Booth alums at these firms.)

Let me conclude with the following anecdote: Last fall, I was asked to moderate a panel for the Chicago chapter of the Urban Land Institute’s panel on their Emerging Trends 2019 forecast. While I was not involved in the selection of the panelists, I was delighted to discover that all three are Booth alums: Jennifer Boss, ’08 (XP-77) (Heitman), Michael Eglit, ’10 (Blackstone), and David Scherer, ’14 (XP-83) (Origin), and all three were superb. Again, it is a wonderful illustration of who decides to attend Booth and what they are taught while here—it is a powerful combination!
APPENDIX: SELECTED ACADEMIC & PROFESSIONAL ACTIVITIES

**Working Papers**

“Another Look at Private Real Estate Returns by Strategy”
(to be published, subject to revision, in the special PREA-sponsored real estate issue of the *Journal of Portfolio Management*)

“Levered Equity Returns in the Presence of Risky Debt: An Application to Private Real Estate”

**Booth Real Estate Conference Presentations**

2018:
- Agenda
- Presentation
- Videos

2017:
- Agenda
- Presentation
- Videos

**Academic & Professional Presentations**

“Are the Gateway Markets Overpriced?”

“Urban Land Institute: Real Estate Forecasting 2019”

“The Cases and Consequences of Cross-Market Differences in the Liquidity of Commercial Real Estate”