Communications from professor and teaching assistants about the course will take place through Canvas. Students should make sure they regularly check for announcements and messaging notifications.

Course Schedule:

Tuesdays A term: 5:40 pm – 8:55 pm

Dates: 9/7/21 [TBC], 9/14/21, 9/21/21, 9/28/21, 10/5/21, [10/12/21 class moved to 10.15.21]

Classroom: Uris 141

Important Scheduling Notes: The first class (9/7/21) conflicts with Rosh Hashana and will be moved to either Thurs 9/9/21 or Fri 9/10/21 from 1:00 - 4:15 pm. The final class (10.12.21) will be held on Friday 10/15/21.

Review Session: There will be two optional review sessions – on Friday 9/17/21 and Friday 9/24/21, time TBD. We will cover a Net Asset Value Calculation and Building a Company Earnings Model.

Course Description / Student Learning Outcomes

REITs have existed as a legal form for over 55 years, but the modern REIT era can be traced to the early 1990’s. Since that time, the sector has grown from approximately $5.0 billion in assets to over $1.0 trillion. More importantly, the migration of assets and talent into the public markets has helped make REITs one of the primary drivers of value creation in the real estate industry as well as a repository of operating expertise. By some estimates REITs today comprise 15.0 - 20.0% of the investible commercial real estate market; given significant competitive advantages, that share is growing. The net result has been irrevocable structural change and increased stability across the real estate industry. The REIT sector has evolved into a very viable and credible investment class; the group now comprises a significant weighting in the major stock indices with its own industry classification.

*Real Estate Equity Securities Analysis* will serve as a substantive introduction to the companies that comprise the REIT and real estate securities sectors, conceptually and as an investment. The course will provide the requisite analytical tools to value real estate stocks; we will utilize conventional securities analysis tools, on an applied basis. It will also look holistically at the REITs as operating entities, specifically how these companies work and what they are worth. We will incorporate qualitative, strategic and technical considerations into the quantitative valuation analyses – to reach more rigorous and successful investment conclusions. Rhetorically, the course will utilize a combination of lectures and case studies, interactive group exercises and discussion. Notably, guest speakers will include senior executives from issuing REITs as well as buy-side securities investors – both hedge fund and global portfolio managers. The final project will
group students into teams to select a specific REIT security and prepare a stock recommendation for presentation to an investment committee. *Real Estate Equity Securities Analysis* will provide the actionable skills and broad analytical insight to participate successfully — as an investor or as a partner — in a sector that has emerged as one of the most important drivers of the real estate industry globally.

**Student Profiles:** *Real Estate Equity Securities* is designed to be a second year, upper level finance course. The pre-requisites below highlight the need for a working knowledge of fundamental real estate concepts, corporate finance and capital markets tools — including how to model and value a specific asset and underwrite a real estate market. Those tools and concepts will be applied at the entity and on a macro level in order to understand the value of a company in the securities markets.

Additionally, our guest speakers will be REIT CEOs and senior securities investment executives. As such, the course material will be extremely worthwhile for real estate concentrators; students with a general interest in real estate, corporate strategy or liquid securities / portfolio management will also find the content relevant.

**Course Pre-requisites**

Real Estate Finance (B8331), Corporate Finance (B6300) and Capital Markets (B8306) are pre-requisites.

It is important that students have a working understanding of real estate investment concepts and conventional corporate finance tools.

This half session “A” course is focused on the analysis of commercial real estate equity securities. It is complimented by the half session “B” course – Real Estate Debt Markets. Students may wish to take the two courses sequentially for a more complete understanding of the broader real estate capital markets.

**Course Materials / Communication / Administration**

Assigned course readings for each class will be posted on Canvas approximately one to two weeks prior to the relevant session. Power Point slides for each lecture will also be available on Canvas concurrent with the specific class.

Course communication from Professor Smotrich and the Course Assistant will take place through Canvas. Students should check Canvas regularly for course updates, announcements, and other notifications.

Assignments should be turned in at the beginning of class on the day it is due. Late assignments will not be accepted. Reading materials covered by guest speakers are required.

Class participation will comprise a significant portion of your course grade. Absences and late arrivals will be considered as a factor in class participation.

**Connection with the Core Curriculum**

Real Estate Equity Securities Analysis builds on a variety of topics taught in the core courses – particularly Corporate Finance, Global Economics, Managerial Economics and Strategy:
### Core Course Connection with Core

<table>
<thead>
<tr>
<th>Core Course</th>
<th>Connection with Core</th>
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<tbody>
<tr>
<td>Corporate Finance</td>
<td>• Time value of money</td>
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<td>• CAPM</td>
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<td>• Opportunity cost of capital</td>
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<td>• Risk</td>
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<td></td>
<td>• Efficient Markets</td>
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<td></td>
<td>• Return on Invested Capital</td>
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<td>Strategy Formulation</td>
<td>• Value Creation vs. Value Capture</td>
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<td>• Trade-offs – Risk vs. Reward</td>
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<td>• Balance Sheet Strategy</td>
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<td>• Entity Level Operating Strategy</td>
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<td>Leadership Development</td>
<td>• Ethics</td>
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<td></td>
<td>• Decision making</td>
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<td>• Corporate Governance</td>
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<tr>
<td>Global Economic Environment</td>
<td>• Inflation and the business cycle</td>
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<td>• Fiscal policy</td>
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<td>• Role of financial markets in the economy</td>
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### CLASSROOM NORMS AND EXPECTATIONS

Students are expected to adhere to CBS Core Culture in this class by being Present, Prepared, and Participating. Typical classroom norms are applicable – come prepared, timely attendance is mandatory, be respectful of guests.

**Expectations:** Students should bring an open minded, intellectual curiosity to the classroom. The best students will understand that while we use analytical tools, real estate securities analysis is as much art as it is science; there is not necessarily one correct answer. Designed for second year MBA’s, the course and its content seek to reflect the professional environment you will face once out of business school. The ability to think clearly, and grapple with uncertainty will be a valuable asset; do not expect spoon fed answers.

### ASSIGNMENTS

All of your assignment submissions are subject to the [CBS Honor Code](#). Violations of the CBS Honor Code may lead to failing the assignment, failing the course, suspension, and/or dismissal. In order to avoid ambiguity that may lead to unintentional violations of the Honor Code, assignment description types have been standardized and specified below.
<table>
<thead>
<tr>
<th>Type</th>
<th>Designation</th>
<th>Grade</th>
<th>Preparation of submission</th>
<th>Discussion of Submission*</th>
<th>Discussion of Concepts**</th>
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<tbody>
<tr>
<td>A</td>
<td>Group Work</td>
<td>Same grade for all group members</td>
<td>By the group</td>
<td>Permitted to discuss (within group)</td>
<td>Permitted</td>
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<tr>
<td>B₁</td>
<td>Individual w/ Discussions of Concepts and Submission</td>
<td>Individual grade</td>
<td>Individual preparation</td>
<td>Permitted to discuss; sharing solutions or submission files is not allowed</td>
<td>Permitted</td>
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<tr>
<td>B₂</td>
<td>Individual w/ Discussions of Concepts Only</td>
<td>Individual grade</td>
<td>Individual preparation</td>
<td>Not permitted to share/discuss solutions or submission</td>
<td>Permitted</td>
</tr>
<tr>
<td>C</td>
<td>Individual</td>
<td>Individual grade</td>
<td>Individual preparation</td>
<td>Not permitted to share/discuss solutions or submission</td>
<td>Not permitted***</td>
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</table>

* Submission means any work and/or output pertaining to the specific assignment. If an assignment submission contains a calculation or decision related to a specific set of data and setting, discussing the details how to make this calculation or decision with regard the data/setting is to discuss the submission. Providing another student with a draft of the calculation or decision is sharing the submission.

** Concepts mean any ideas, examples, readings, or other related materials from the class/course. Conceptual discussion should not be based on a specific set of data or setting related to a calculation or decision required in the assignment, but could be based on other related examples, preferably those from class/course materials.

*** As no conceptual discussion is permitted, Type C is akin to a take-home exam.

** ATTENDANCE POLICY **

Students are required to attend each class. Students should reach out to the instructor or CA regarding excused absences (for religious observances; personal, medical, and family emergencies; military service; court appearances such as jury duty). Unexcused absences will affect your course grade.

This course may use PollEverywhere as a tool to increase in-class student engagement. PollEverywhere may also be used to confirm student attendance and participation records. Students who have concerns regarding whether their responses have been recorded should contact the instructor.

Finally, if a student is not present in the classroom at the time of a poll (due to absences or any other reasons), the poll should not be answered. Responding to a poll when not present in the classroom is a violation of the Honor Code.

** INCLUSION, ACCOMMODATIONS, AND SUPPORT FOR STUDENTS **

At Columbia Business School, we believe that diversity strengthens any community or business model and brings it greater success. Columbia Business School is committed to providing all students with the equal opportunity to thrive in the classroom by providing a learning, living, and working environment free from discrimination, harassment, and bias on the basis of gender, sexual orientation, race, ethnicity, socioeconomic status, or ability.

Columbia Business School will make reasonable accommodations for persons with documented disabilities. Students are encouraged to contact the Columbia University’s Office of Disability Services for information about registration. Students seeking accommodation in the classroom may obtain information on the services offered by Columbia University’s Office of Disability Services online at [www.health.columbia.edu/docs/services/ods/index.html](http://www.health.columbia.edu/docs/services/ods/index.html) or by contacting (212) 854-2388.
Columbia Business School is committed to maintaining a safe environment for students, staff and faculty. Because of this commitment and because of federal and state regulations, we must advise you that if you tell any of your instructors about sexual harassment or gender-based misconduct involving a member of the campus community, your instructor is required to report this information to a Title IX Coordinator. They will treat this information as private, but will need to follow up with you and possibly look into the matter. Counseling and Psychological Services, the Office of the University Chaplain, and the Ombuds Office for Gender-Based Misconduct are confidential resources available for students, staff and faculty. “Gender-based misconduct” includes sexual assault, stalking, sexual harassment, dating violence, domestic violence, sexual exploitation, and gender-based harassment. For more information, see http://sexualrespect.columbia.edu/gender-based-misconduct-policy-students

COURSE ROADMAP/SCHEDULE

Session One: Introduction to REITs / Real Estate Securities – 9/7/21  [To Be Rescheduled on 9/9/21 or 9/10/21]
An overview of the publicly traded real estate sector from the perspective of the relevant constituencies – Issuers, Investors and Intermediaries. Discussion topics will include:

• An Introduction to REITs
• Why REITs are Important – And Why You Should Care.
• Emergence of Publicly Traded Real Estate – Industry Implications
• REITs Today – Investment Characteristics, Issues and Definitions
• Fundamental / Technical Considerations – Investor Constituencies, Sentiment and Valuation
• Investment Implications of a Black Swan Event (Covid) – Guest Speaker
• An Introduction to Stock Analysis (Net Asset Value)
• Thinking About REIT Securities – A Total Return Asset Class (Growth and Income)

Pre-Work: Submit Resume or Short Bio (Assignment Type C)
Form Project Teams (On Canvas - To be discussed / finalized in class)

Pre-Readings: REITs 101: An Introduction, Barclays

Guest Speaker: TBD – Senior Buy-side Investment Professional

Session Two: Valuation Methodologies / Strategic Decision Making – 9/14/21
The theory and practice of securities valuation applied to commercial real estate and the development of corporate strategy. This session will focus on the requisite analytical tools to accurately perform entity level stock valuation (including the tools’ relevance during market disruption), qualitative considerations in company analysis and introduce the first of two company case studies.

Our guest speaker, a REIT CEO, will discuss how company management looks at the strategic and tactical considerations necessary to create public shareholder value. Discussion topics will include:

• Strategic / Tactical Decision Making – The Company Level
• Balancing Growth, the Cost and Availability of Capital
• Real Estate – Aftermath of the Pandemic

• Quantitative Methods – NAV, Multiple and DCF Analyses
• Conventional Securities Analysis Applied to Real Estate – Is GAAP Relevant
• Intrinsic Value – A Forward Perspective
• Valuation as an Art Form – And How Stocks Really Trade

Pre Readings: REIT Valuation: A New Paradigm, Barclays Company Investor Presentation

Homework Due: Begin NAV Calculation (5% weighting) (Assignment Type B1)

Subject Quiz: 10 Questions (REIT Terminology / Valuation)

Guest Speaker: TBD – REIT CEO

Session Three: Predicting the Future / Investing in Equity Securities – 9/21/21

The practical application of analytics to the real estate investment process. We will focus on building a predictive public company earnings model – the basis of stock valuation – and introduce the buy-side; specifically, an overview of the capital sources that invest in real estate equity securities.

The guest speaker – a Senior Analyst / Portfolio Manager will provide a firm overview and the creative / unique way in which he looks at company analysis / stock valuation across different property subsectors.

Discussion topics will include:
• The Buy-side Ecosystem (Part I) – Picking Stocks
• Analytical Considerations across Property Subsectors
• Specialist vs Generalist Investors – NAV vs Multiples, Which Perspective is Correct
• Practical Application of Valuation Tools
• An Earnings Model – The Basis for Successful Investing
• Underwriting the Main Food Groups / Different Property Sectors
• Changing Consumption Preferences – Impact on Space Utilization and Real Estate Fundamentals
• How to Craft an Argument – Provide Context

Pre Readings: Emerging Trends in Real Estate 2021, PWC / ULI
Yardi Multi Family Deck

Homework Due: Submit NAV Calculation (5% weighting) (Assignment Type B1)

Subject Quiz: 5 Questions (Stock Market and Portfolio Management)

Guest Speaker: TBD – Senior Buy-side Analyst Portfolio Manager

Session Four: Qualitative Considerations and Relative Valuation / Building a Company – 9/29/20

The qualitative factors that differentiate companies and how they are applied to securities analysis. Competitive advantage, operating expertise, balance sheet strength – are characteristics that inform and impact the quantitative analysis, and lead to an entity level investment conclusion. An in-class relative valuation exercise will graphically illustrate those distinctions.

Our guest speaker, a REIT CEO, will provide their broad views on the evolution of the REIT industry, stock valuation and corporate / strategic decision making in the context of the evolving real estate environment. Discussion topics will include:
• Managing Through Financial Crises – Growing the Business
• Equity vs Debt – Managing the Capital Stack
• Dividend Policy – Returns on Invested Capital
• How to Succeed in a Mature World? Take Market Share
• REITs as Operating Entities
• Management – Measuring Quality
• Corporate Culture – Value Differentiator
• An Introduction to Relative Valuation

Pre Readings: Company Investor Presentation / Financial Reports

Homework Due: Begin Company Model (10% weighting) (Assignment Type B1)

Subject Quiz: 5 Questions (Property Sector Analysis)

Guest Speaker: TBD – REIT CEO

Session Five: Investing in Equity Securities – Putting it all Together – 10/5/21

Combining quantitative analysis with qualitative considerations to reach rigorous investment conclusions – on the entity and portfolio levels. An in-class balance sheet exercise will highlight the risks / rewards of a capital-intensive business. The goal is an investment strategy that is fundamentally sound, internally consistent, and ideally – profitable.

Our guest speaker, a global real estate portfolio manager, will provide perspective on different investment strategies and color around career paths for investment professionals. Discussion topics will include:

• Buy-side Ecosystem (Part II) – Portfolio Management
• Building an Investment Portfolio – Balancing Risk and Return
• Investment Strategy – Considering a Pandemic
• Buy-side / Sell-side – Differing Perspectives
• Balance Sheet Management – Leverage and Liquidity
• Investment Strategy and Relative Performance
• Diversification – Required Returns

Pre Readings: EY – Covid 19: Real Estate Valuation Considerations Report

Homework Due: Submit Company Model (10% weighting) (Assignment Type B1)
Submit Valuation Analysis / Team Conclusion (10% weighting) (Assignment Type B1/A)

Subject Quiz: 5 Questions (Balance Sheet Analysis)

Guest Speaker: TBD – Global Real Estate Portfolio Manager

Session Six: Final Presentations - Investment Committee Stock Pitch - 10/12/21 [Rescheduled to 10/15/21]

The final session will provide students with the opportunity to present their final investment recommendation to a committee comprised of senior money managers currently active in the market. The panel will provide a substantive critique of your team’s investment argument and recommendation including the quality of the analysis, thought process and actual presentation. Presentation experience – is applicable to real estate investment broadly; public and private, debt and equity. The session will include:
METHOD OF EVALUATION/GRADING
The course grade will be based on three homework assignments, several subject quizzes, class participation and a final project (stock recommendation). The quizzes and homework assignments will be individual projects (Type B) while the final project (paper / presentation) will be a combination team / individual effort (Type A / Type B); each individual will be responsible for a specified section. Your course grade will be determined as follows:

- Homework Assignments 25% (5%, 10%, 10% Respectively)
- Quizzes 5%
- Final Group Paper 25% (combination individual / group grade)
- Final Group Presentation 25% (combination individual / group grade)
- Class Participation 20%

The specifics of the final project will be discussed in detail during the first class. We will form teams (four or five students) at the start of the semester and each team will use the analytical tools and qualitative / technical considerations discussed in class to prepare a stock analysis / recommendation for presentation to a senior investment committee. Preliminary team sign up will be available on Canvas prior to the first class, along with a choice of stocks / property sectors; we will finalize the teams / stocks subsequently. The length and format (required sections) of the written report will be determined by the specific analysis; for clarity, a sample report will be provided for your review. The oral presentation should be a concise summary of your conclusions and may include power point slides as appropriate.