Overview: This is an introductory course to global real estate markets, with a focus on income-producing real estate assets. Globally, estimates suggest the value of investable real estate assets in the world exceeds $60 trillion.

The goal is to introduce students to the basics of real estate valuation and risk management, emphasizing concepts that are salient in the global context, including currency risk, political risk, rule of law, property rights, and culture. We will use current events to help us characterize risks facing global real estate investors. For example, how might Brexit or U.S./China relations influence the cross-border investment strategies of firms and for real estate markets? What should investors consider in choosing a country and a local partner? How should they structure contracts with local partners to mitigate risks?

This is a full-semester course, open to undergraduates (REAL 205) and MBAs (REAL 705). The course is part of the Wharton Undergraduate Global Flex Fundamentals bracket. The course will cover markets outside the United States, except for one special topic on international investors in the United States. We will focus more on the qualitative aspects of real estate investment analysis and less on the quantitative aspects.

Pre-requisites: There is no pre-requisite for the course. No prior real estate experience is needed and no prior financial modeling experience is needed. The cases will require a basic understanding of cash flow modeling (revenues and expenses only, with no leverage nor taxes).

Recitation on basics of cash flow modeling (1/29, Fri, 12pm to 130pm): There will be a recitation to cover the basic concepts underlying cash flow modeling and time value of money, for the students who have not taken FNCE 100 or FNCE 611.

Potential overlap with other courses: This is an introductory course designed to equip students with the basics of real estate investment analysis necessary to understand decision-making in global real estate contexts. For example, we will cover the basics of real estate cash flows, currency risk, political risk, and rule of law to help students understand how global real estate investors think about risk when investing in international commercial properties, international REITs, non-performing loans, and land markets.

We may touch upon concepts taught in other courses, including Real Estate Investments (REAL/FNCE 209/721), Capital Markets (FNCE 238/738), and International Financial Markets (FNCE 219/719). If you have taken any of these courses, you probably know more than you need
for certain aspects of this course. If you have taken all of the courses above, feel free to email me to discuss whether this course is suitable for you.

**Course materials:**

- There is no required textbook but here are three supplementary texts for students who want to further their real estate interests:
  - *Real Estate Finance and Investments, 3rd edition* or newer, by Peter Linneman.
  - *Commercial Real Estate Analysis and Investments* by David Geltner, Norman Miller, Jim Clayton, Piet Eicholtz
  - *International Macroeconomics, 4th edition* or newer, by Robert C. Feenstra and Alan M. Taylor

- The class schedule below lists the relevant readings.
  - Note, *indicates required articles* (which will be fair game in exams) and ^ indicates highly relevant articles that provide useful background.
  - You can find the articles in two places on Canvas:
    - Textbook chapters can be found on Course Materials @Penn Libraries
    - Other articles are under Files>Readings (organized by topics)

- On Canvas you will find:
  - Class notes
  - Readings
  - Announcements, updates, and clarifications
  - Answers to questions that are of general interest (e.g., about a case)

**Guest speakers:**

There will be at least five guest speakers for this class. All lectures outside of class regular class time to allow students from all three sections to attend. These sessions are required material. In some instances, the guest speakers may request that I do not record the lectures so the guests feel comfortable speaking freely. **Attendance is required and I will take attendance.** You are excused if you have a valid conflict (please email me if you cannot attend). The guest speakers for this semester include:

  - TBD

Please note that many of our guest speakers have global commitments and may need to re-schedule their visit.

**Midterms:**

Two midterm exams will be held online on:

- Thursday, 3/4
- Thursday, 4/29

Exam 2 is not cumulative in content, but assumes proficiency in basic skills taught in the first portion of the class. Exams will cover the material examined in class and during guest lectures, the class notes, the cases, and the required readings. The exams are closed-book, but I will provide a cheat sheet for each exam with the necessary formulas and definitions. In addition, seats will be randomly assigned on exam days.
Both exams must be passed in order to receive a passing grade for the course. Exams must be taken at the assigned time. If you cannot attend class on these dates, please drop the class now. Make-ups are not given unless you have a Wharton Dean’s Office-approved excuse. For a medical excuse, you must have been admitted to student health or the hospital, or have a note explaining that you were incapacitated.

Cases (groups):
There will be two cases handed out in class. You will choose your own group of 3 to 5 members within your own section, and must work with the same team on both cases. You and your teammates should sign up under the “team sign-up” section on Canvas (please choose TEAM 205 for undergraduates and 705 for graduate students). I will also create a discussion thread on Canvas for you to find team members. If you cannot find a group and you email me before 1/30 (Th), I will either form a group for you or assign you to different teams over the course of the semester. Late cases will not be accepted nor will extensions be given.

The two cases are:
- Case 1 (15 pts): Brexit and currency risks, due 2/16
- Case 2 (15 pts): Direct investments and local partners, due 4/8

In-class discussions and individual memos:
There will also be two in-class case discussions. For these, each student will have to submit a one-page memo.

- Memo 1 (Non-performing loan discussion): 10 pts, due 3/25
- Memo 2 (Slum redevelopment discussion): 10 pts, due 4/22

Honor code: Each group must separately prepare their own case materials and write-ups without reference to anyone else’s case materials or write-ups. It is your responsibility to make sure your entire team prepares the cases independently. Violations by any team member will result in the entire team getting a zero on the assignment. You may verbally discuss the cases, including ideas, approaches, and solution methods, with other students who are currently enrolled in REAL 205/705. You may not obtain assistance, or solicit advice, from former students, current or past employees of firms involved with the cases, or anyone else involved in the real estate investment.

You also may not provide such assistance or advice once you are no longer enrolled in this class. You may not share your written materials or Excel with anyone at any point. Violations of these rules will be treated as violations of Penn’s Code of Academic Integrity. I do not distinguish between the plagiarizer – the team using other’s materials – and the provider of the materials. Do not circulate your solutions to the cases. If I find your case to be the source of plagiarized material, I will report the violation and do my best to retroactively change your grade.

Grading:
The course grade will be based on the following:

- Exams: 40 percent (20 percent each)
• Cases: 30 percent (15 percent each)
• Individual memos: 20 percent (10 percent each)
• Participation: 10 percent. I take attendance but will have accommodations for students taking the class asynchronously.

I will consider superb or sub-par class participation when deciding grades. Sub-par participation includes arriving late to or missing classes. The dates and times for all assignments are final, and must be strictly adhered to. Failure to complete any exam or hand in any case on time will result in zero points for that exercise.

Technology:
• Please unmute your video and be prepared for class.
• For in-person classes, I allow the use of tablets to take notes. Screens must be flat on the table (unless you are in the last row). Phones must be turned off and put away.
• If you have a technical or medical excuse, please reach out to me and I am happy to accommodate you.
• I reserve the right to change the policy if it impacts the learning environment. Out of fairness to all students and in adherence to guidelines from the MBA office, course participation points will be deducted for students who violate this policy.

Other policies:
• Be prepared for changes. I will use Canvas announcements to communicate these to the class. If there is a significant change to the curriculum or guest speaker schedule, I will email the class.
• [Hybrid]: Please note that some of the policies for in-person instruction will be subject to change as we adjust to the health and safety guidelines of the university and local governments.
• [Asynchronous]: If you plan to take this course asynchronously due to time zone issues, please reach out to me to discuss how class participation will be determined. I offer office hours in the mornings (9am EST) or nights (10pm EST) to accommodate you. Please reach out to schedule an appointment.

Getting help:
• My email is maisy@wharton.upenn.edu. I reply to all emails regarding class matters within 24 hours. If I do not, please re-send the email in case I missed the first one.
• Office hours will be held online. I hold regular office hours, take appointments, and answer questions by email.
• I also hold extra office hours before a case is due and before each midterm.
Course Schedule

Note: * = Required; ^ = Highly relevant

Note that I have also posted additional news articles and podcasts on Canvas to provide more background on global events. For the exam, you are only responsible for Required (*) readings.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topics</th>
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<tbody>
<tr>
<td>1/21, Th</td>
<td><strong>Introduction: Course overview and introduction to global real estate markets</strong>&lt;br&gt;Topics: Course overview, survey of global real estate assets, property types, stakeholders&lt;br&gt;Readings:&lt;br&gt;• *Geltner et al., Chapter 24.2 (p. 611 – p. 618, p. 624 –p. 627)&lt;br&gt;• ^ Financial Times: Bruce Flatt of Brookfield on owning the backbone of the global economy</td>
</tr>
<tr>
<td>1/26, Tu</td>
<td><strong>Basics of real estate valuation and risks</strong>&lt;br&gt;Topics: Net operating income (NOI), cap rates, rents, vacancies, cycles&lt;br&gt;Readings:&lt;br&gt;• *Linneman, Ch. 5 (p. 43 – p. 56, ignore taxes and leverage)&lt;br&gt;• *Linneman, Ch. 9 (p.114 - p.124)&lt;br&gt;Case 1 handed out in class</td>
</tr>
<tr>
<td>1/28, Th</td>
<td><strong>Basics of real estate valuation and risks (continued)</strong></td>
</tr>
<tr>
<td>1/29, Fri</td>
<td>Recitation for basics of cash flow modeling and time value of money, 12pm to 130pm. We will cover pro forma modeling (NOI, cap rates), goal seek, data tables, time value of money concepts (IRR, NPV, etc.).</td>
</tr>
<tr>
<td>2/2, Tue</td>
<td><strong>No regular class. Required guest lecture (TBD)</strong></td>
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<tr>
<td>2/4, Th</td>
<td><strong>Currency risks</strong>&lt;br&gt;Topics: Assessing and managing currency risks, currency hedging, implications of foreign currency debt, currency crises&lt;br&gt;Readings:&lt;br&gt;• *PREA, The increasing importance of currency risk in real estate&lt;br&gt;• *Feenstra and Taylor, Chapter 2 (Introduction to Exchange Rates and the Foreign Exchange Market)&lt;br&gt;• *Standard and Poor, “The new Fragile Five”, 2017&lt;br&gt;• ^ “How the Gherkin was pickled: a tale of debt, risk and ambition”, Financial Times, 2014</td>
</tr>
<tr>
<td>2/8, Mon</td>
<td><strong>Required guest lecture</strong></td>
</tr>
<tr>
<td>2/9, Tue</td>
<td><strong>No regular lecture in lieu of guest lecture on Monday</strong></td>
</tr>
<tr>
<td>2/11, Tu</td>
<td><strong>Currency risks (continued)</strong></td>
</tr>
<tr>
<td>2/16, Th</td>
<td><strong>Case 1 discussion: Brexit and currency risk</strong></td>
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<tr>
<td>2/18, Th</td>
<td><strong>Inflation, liquidity, and global financial markets</strong>&lt;br&gt;Topics: Assessing and managing inflation risks, interest rate risks, liquidity issues, capital controls</td>
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<tr>
<td>2/23, Tu</td>
<td><strong>Basics of portfolio diversification</strong></td>
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Topics: Basic intuition behind portfolio diversification  
Readings:  
- *Feenstra and Taylor, Gains from Diversification of Risk* (p.236 – p.244)  
- *Geltner et al., Chapter 24.2.2 (p. 618 - 623)*  
- Geltner et al., Chapter 21 (Real Estate Portfolio Theory)  
- MSCI, Erosion of the Real Estate Home Bias, 2014

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<thead>
<tr>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>2/25, Th</td>
<td>Midterm review</td>
</tr>
</tbody>
</table>
| 3/2, Th    | **Direct and indirect investments (Debt)**  
Topics: Global investment vehicles, including debt markets, listed and unlisted funds, private and public equity  
Readings:  
- ^Sam Zell’s 1993 speech in NAREIT on the potential for the REIT sector.  
| 3/4, Tu    | **Midterm 1, in class**                    |
| 3/9, Tu    | **Direct and indirect investments (Equity)** |

**SPRING BREAK**

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<thead>
<tr>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>3/16, Tu</td>
<td>No regular lecture. Required guest lecture. TBD</td>
</tr>
<tr>
<td>3/18, Th</td>
<td><strong>Direct and indirect investments (Equity)</strong></td>
</tr>
<tr>
<td>3/22, Mon</td>
<td><strong>Required guest lecture. TBD</strong></td>
</tr>
<tr>
<td>3/23, Tu</td>
<td>No regular lecture in lieu of guest lecture on 3/22</td>
</tr>
<tr>
<td>3/25, Th</td>
<td>In-class discussion: Investing in non-performing loans.</td>
</tr>
<tr>
<td>3/30, Tu</td>
<td><strong>No classes</strong></td>
</tr>
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</table>
| 4/1, Th    | **Political risks and rule of law**        
Topics: Implications of political and regulatory risks for real estate investments, corruption, measuring political risks, Transparency Index, World Bank Doing Business measure of regulations, legal systems, landlord/tenant rights, lender/borrower protection, foreclosure laws  
Readings:  
- ^ Calomiris and Haber, *Fragile by Design* (2014), Ch. 2 (Game of Bank Bargains)  
- ^ Shleifer and Vishny, *Grabbing Hand* (1998), Ch. 1  
- ^ “What’s at Stake: South Korea vs. Lone Star Funds”, *Wall Street Journal*, 2015  
- “Next Big Bet for Apartment Rentals: Mexico City”, *Wall Street Journal*, 2016 |
| 4/6, Tu    | **Political risk and rule of law (continued)** |
| 4/8, Th    | **Case 2: Finding a local partner.**       |
| 4/13, Tu   | **Required guest lecture**                 |
| 4/15, Th   | **Property rights and land markets**       
Topics: Land markets, land assembly, strata titles, fractional ownership |
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<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>4/19, Mon</td>
<td><strong>Required guest lecture</strong></td>
</tr>
<tr>
<td>4/20, Tu</td>
<td><strong>No regular lecture in lieu of guest lecture</strong></td>
</tr>
<tr>
<td>4/22, Th</td>
<td>In class discussion: Slum re-development in India. Individual memo due on Canvas.</td>
</tr>
<tr>
<td>4/27, Th</td>
<td>Midterm review</td>
</tr>
<tr>
<td>4/29, Tu</td>
<td><strong>Midterm 2</strong></td>
</tr>
</tbody>
</table>

**Regrade Policy:**

I strive for accuracy and equity in the grading for this class. However, despite our best efforts, grading is sometimes imperfect and the onus for bringing any errors to my attention falls upon you. Be sure to take the time to make sure you understand the errors you made before submitting the regrade request. Under no circumstances will I go over the grading of your assignment in “real time,” with no forewarning.

**Steps to submit a regrade request:**

1) You must upload your regrade request on Canvas.
2) The regrade requests should include cover sheet indicating:
   a. The question that needs to be regraded
   b. An explanation of the error and justification for why points should be rewarded
   c. The number of points associated with the request