Real Estate Capital Markets generally refers to secondary asset markets, both debt and equity, linked to or backed by real estate assets. This course provides an in-depth look at the structure and functioning of real estate capital markets with an emphasis on Mortgage-Backed Securities (MBS), both residential and commercial, as well as (to a lesser extent) Real Estate Investment Trusts (REITs). Over the past two decades, the integration of real estate into the broader capital markets has transformed real estate capital sources and investment products, resulting in a growing range of liquidity and risk-return choices available to investors. As the Great Financial Crisis (GFC) clearly demonstrated, public market integration also creates added volatility and potential risks that may be determined outside the private real estate market. Astute real estate investors today must have a solid understanding of both the private real estate markets and the connections with the broader capital markets.

A major focus of the course is the structure and operation of the U.S. mortgage market and the investment characteristics of mortgages and MBS. We will identify and evaluate the nature and sources of risks inherent in mortgages and introduce quantitative techniques suitable for measuring and analyzing those risks.

The first part of the course focuses on understanding the big picture of what happened during the GFC, and what the current outlook is, including:

1. Overview of the boom and bust before and during the GFC
2. What is the current outlook as we embark on possible interest rate liftoff – from the eyes of the Federal Reserve

The second part of the course focuses on the primary mortgage market.

1. Overview of the mortgage markets and the important players in the markets.
2. Basic terminology and fundamental principles of real estate law are covered in this section
3. “Mortgage math” -- calculating mortgage payments, amortization schedules, remaining outstanding loan balances, yield to maturity and APR.
4. Traditional fixed rate residential mortgages, alternative mortgage instruments and the factors influencing the borrower’s choice.
5. Typical commercial mortgages and how they differ from residential mortgages
6. An introduction to the two primary risks of mortgages from both the lender’s and borrower’s perspective.

The secondary mortgage market is the focus of the third section of the course.

1. We begin with the problems associated with mortgage investing that led to the development of mortgage pass-through securities.
2. The most common forms of mortgage-backed securities (MBS) will be presented.
3. Methods commonly used for analyzing MBS will be introduced.

There will also be an introduction to Real Estate Investment Trusts (REITs) in the fourth (and final) section of the course.

There will be several guest speakers at various points throughout the semester.

There will usually be a brief break mid-way through each class session.
Course Materials:

A financial calculator is required that is able to calculate internal rate of return (IRR) and net present value (NPV) for non-constant cash flows [TI BA II Plus or HP 10BII or HP 12C are good choices; I prefer the TI BA II Plus].


In addition, handouts, homework assignments, and additional readings will be assigned and/or posted on HuskyCT. Therefore, participating in class and taking good notes will be necessary to learn the course material well.

The additional readings include the following (many will be posted on HuskyCT); I will indicate throughout the semester which ones are most important for you to read (and some others will be added later):

- “The Rise and Fall of Subprime Mortgages” (DiMartino and Duca), Federal Reserve Bank of Dallas Economic Letter, Vol. 2, No. 11, November 2007
- “Residential Housing and Personal Bankruptcy,” (Li), Federal Reserve Bank of Philadelphia Business Review, Q2 2009
- “Contemporaneous Loan Stress and Termination Risk in the CMBS Pool: How “Ruthless” is Default? (Selson and Wheaton), Real Estate Economics, 2009 (forthcoming). *parts to be assigned
- “The Economics of Structured Finance” (Coval et al.), Harvard Business School, 2008

Course Grading:

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<tr>
<th>Assignments</th>
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<tr>
<td>Participation</td>
<td>15%</td>
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<tr>
<td>Exams (midterm and final)</td>
<td>30% each</td>
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<tr>
<td>Book Summary</td>
<td>10%</td>
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