



Syllabus Real Estate Primary Markets – Spring semester AY 2013-14

This draft syllabus is subject to future revisions

Instructor

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FINC-GB.2329. 30 | Real Estate Primary Markets

Course Description

This course is the first in a sequence of two classes that will provide the student with an in-depth introduction to real estate finance and investment:

(REPM) Real Estate Primary Markets

(RECM) Real Estate Capital Markets

Course Outline

The course begins with an overview of real estate as an asset class including the legal, tax and accounting conventions as well as the nature of the cash flows generated and how they are valued. An in-depth discussion of the sources of capital and the structures used for investment in real estate follows. We will look at the evolution of the Financial Crisis and its impact of on the real estate capital markets. The course ends with an overview of a selection of particular types of real estate investments.

Each class begins with a 10 question multiple choice quiz on the assigned reading. This is followed by a brief review of the prior week's topic, a lecture covering that week's new material and an interactive discussion of the assignment given at the end of the prior class. Class participation is strongly encouraged. Each week your advance preparation will include a reading assignment and an exercise (or case) designed to help you develop your financial modeling skills.

I look forward to meeting all of you and to learning with you as we explore the exciting real estate industry together.

Website

NYU Classes

NYU Stern Course Policies

1. Laptops, cell phones, smart phones, recorders, and other electronic devices may not be used in class unless advance permission is given by me.
2. Attendance is required. Absences will be excused only in the case of documented serious illness, family emergency, religious observance, or civic obligation. If you will miss class for religious observance or civic obligation, you must provide me with advance notice.
3. Students are expected to arrive to class on time and stay to the end of the class period. Students may enter class late or leave class early only if given permission by me and if it can be done without disrupting the class.
4. Late assignments will either not be accepted or will incur a grade penalty unless due to documented serious illness or family emergency. I will make exceptions to this policy for reasons of religious observance or civic obligation only when the assignment cannot reasonably be completed prior to the due date and the student makes arrangements for late submission with me in advance.
5. Your active participation helps me to evaluate your overall performance. You will excel in this area if you come to class on time and contribute to class discussion by
 - Providing strong evidence of having thought through the assigned material.
 - Advancing the discussion by contributing insightful questions and comments.
 - Listening attentively in class.
 - Demonstrating interest in your peers' comments, questions and presentations.
 - Providing constructive feedback to your peers when appropriate

Course Requirements

Readings and homework are assigned each week.

All assignments must be submitted by Sunday 9pm. The assignments are graded on a 0, 1 acceptable, 2 good and 3 excellent scale and must be submitted through NYU Classes which will verify timely receipt. Assignments will **not be accepted** via any other method. All file attachments must be labeled: yourlastname assignment name.filetype. Please use the assignment name in the prompt. For example: *Smith Accounting.xls*.

The weekly reading quizzes, the midterm, the presentations and the final exam are all graded. The homework assignments are graded on a zero to three scale.

There are no make-up quizzes or assignments, instead your lowest quiz and assignment score will be dropped. There are no makeup exams.

Solution sets for each week's assignment will be posted on NYU Classes prior to class so that you can review your work and prepare any questions for class.

NYU Stern Grading Policies

At NYU Stern we seek to teach challenging courses that allow students to demonstrate differential mastery of the subject matter. Assigning grades that reward excellence and reflect differences in performance is important to ensure the integrity of our curriculum.

The process of assigning grades is intended to be one of unbiased evaluation. This means that students are encouraged to respect the integrity and authority of the professor's grading system and discouraged from pursuing arbitrary challenges to it. If a student believes that an inadvertent error has been made in grading a brief written statement including the nature of the error made may be submitted within 7 days. Upon receiving such request, I will regrade the assignment in its entirety, which may result in a higher or in a lower grade.

Course Grades

The final grade for this course will be based on the components set forth below and in accordance with the corresponding percentages. All course requirements must be completed to pass this course.

1	Quizzes (20%) / Assignments (24%) /Midterms (20%)	64%
2	Class Participation	11%
3	Presentations (10%) Final (15%)	<u>25%</u> 100%

You must be present in class to take the exams and quizzes. Please check the class schedule before making your travel plans and accepting other engagements.

Academic Integrity

Integrity is critical to the learning process and to all that we do here at NYU Stern. All students are expected to abide by the NYU Stern Student Code of Conduct. A student's responsibilities include, but are not limited to:

- A duty to acknowledge the work and efforts of others when submitting work as one's own. Ideas, data, direct quotations, paraphrasing, creative expression, or any other incorporation of the work of others must be clearly referenced.
- A duty to exercise the utmost integrity when preparing for and completing examinations, including an obligation to report any observed violations.

All work submitted with the exception of designated group assignments are individual assignments.

- An *individual* assignment is one that you are to complete on your own without consulting classmates, friends, co-workers or any other sentient being. Your work must be original work and not be based in whole or in part on the work of others without appropriately citing any materials used. All quizzes and exams are individual assignments
- A *group* assignment is one that you are to complete by working solely with members of your group. Your work must be original work and not be based in whole or in part on the work of others without appropriately citing any materials used.

If you have a question about this policy please bring it to me in advance. If you are having trouble with the class or any assignment, come see the TA or me.

Stern MBA Code of Conduct

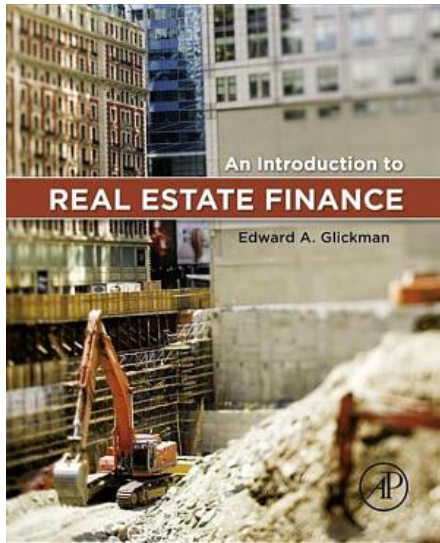
All students must follow the **Stern MBA Code of Conduct** (http://w4.stern.nyu.edu/scorp/committee.cfm?doc_id=4797).

Students with Disabilities

Students whose class performance may be affected due to a disability should notify me during their first class so that arrangements can be made, in consultation with the Henry and Lucy Moses Center for Students with Disabilities, to accommodate their needs. Please see www.nyu.edu/csd for more information.

Course Materials

<http://www.amazon.com/An-Introduction-Real-Estate-Finance/dp/0123786266>



Note to students:

*I wrote **An Introduction to Real Estate Finance** for this class, with the help of many professionals, academics and NYU students. It was released in December and this semester we will use it in published form for the first time. I hope you enjoy it and I am looking forward to your comments!*

The book is on order at the NYU bookstore and is available online at Amazon and through the publisher

For those of you who are uncertain about your background in accounting, I recommend:

Financial Accounting: An Introduction to Concepts, Methods and Uses, 13th Edition

Clyde P. Stickney Dartmouth College

Roman L. Weil University of Chicago

Katherine Schipper Duke University

Jennifer Francis Duke University

ISBN-10: 0324651147

ISBN-13: 9780324651140

960 Pages | Hardcover

Previous Editions: 2007, 2006

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This book is in its 13th edition, but for our purposes any recent edition will do. The first 5-6 chapters provide an excellent review of basic accounting and cash flow.

There will be supplemental readings.

Course Schedule

The schedule set forth below is subject to change as the need arises. All changes will be announced in class, posted on NYU Classes and/or sent in an email message to students. If you miss a class session it is your responsibility to find out what you missed from another student.

Spring 2014 **Monday** **Schedule** Real Estate Primary Markets

Week	Lecture Post Date	Lecture Date	Topic (See note below)	Readings (for following Week)	Case	Assignment Post Date	Due Date
0			Read Ahead	G 0, 1, 3			
1	Feb 9	Feb 10	Legal and Accounting	G 4	1.Accounting Exercise	Feb 10	Feb 23
		Feb 17	President's Day				
2	Feb 23	Feb 24 Quiz #1 Ch. 3-4	Cash Flow and Taxation	G 5	2. Pro-Forma Exercise I	Feb 24	Mar 2
3	Mar 2	Mar 3 Quiz #2 Ch. 5	Property Modeling	G 6	3. Angus Cartwright	Mar 3	Mar 9
4	Mar 9	Mar 10 Quiz #3 Ch. 6	Valuation and Capital Markets	G 7	4. One 13 th Avenue	Mar 10	Mar 23
		Mar 17	Spring Break				
5	Mar 23	Mar 24 MT I Quiz #4 Ch. 7	Debt: Basics	G 8	4.Mortgage Finance Exercise	Mar 24	Mar 30
6	Mar 30	Mar 31 Quiz #5	Debt: Advanced	G 9	5.CMBS Exercise	Mar 31	Apr 6

		Ch. 8					
7	Apr 6	Apr 7 Quiz #6 Ch. 9	Equity	G 10, 13	6.Waterfall Exercise	Apr 7	Apr 13
8	Apr 13	Apr 14 MT II Quiz #7 Chs. 10,13	Capital Structure / REITs	G 2, 11	7.Optimization Exercise	Apr 14	Apr 20
9	Apr 20	Apr 21 Quiz #8 Chs. 2,11	Development	G 14	8.REIT Math Exercise	Apr 21	Apr 28
10	Apr 27	Apr 28 Quiz #9 Ch. 14	Development Presentations / Corporate	G 15	9.Pre Final	Apr 28	May 5
11	May 4	May 5 Quiz #10 Ch. 15	International / International Presentations	G 12	Final Case: take home	May 5	May 12
12	May 11	May 12 Final Quiz #11 Ch. 12	Housing		Final and Quiz: in class		

Items in **Red** will be graded.

NOTE: The topic listed is the topic that will be covered in class that week. Readings and exercises are listed the week that they are assigned. They are due the following week. For example, the first week's lecture will cover Law and Accounting , the Accounting Exercise and associated chapter G4 are assigned in **week one** and are due for **week two**, the second class. When you submit this assignment please label the file **YourLastName AssignmentName.FileType**. For example: the first homework handed in by John Smith would be *Smith Accounting.doc (or .xls etc.)* for the final use: *Smith Final.doc* and lastly for the presentation use: *Smith Presentation.doc*. For work prepared by a group use: *Group #* instead of *yourlastname* for example: *Group Six Presentation.doc*. I reserve the right to reject other formats.

Lectures

Week 1. Legal, Taxation, Accounting

The form of ownership utilized to hold a real property investment impacts the tax and accounting treatment afforded to ownership. Taxation impacts cash flow. Government uses taxation as a vehicle for policy implementation. Government programs can incentivize or dissuade investment. Accounting implications impact the valuation of an asset from the perspective of a corporate owner. Collectively these factors can play heavily into real estate financing and investment decisions.

Week 2. Cash Flow

As a subset of the general class of financial assets, the value of a real property asset is determined by the amount of cash which it can generate. This week we look at the determinants of real property cash flow including revenue sources, types of expenses and ongoing capital requirements. These factors will be compared across different type of properties and across assets at different stages of their life cycles. The goal of this class is to give you a framework for the financial analysis of a property which can be used as a foundation for valuation and the analysis of financing alternatives

Week 3. Property Modeling

Creating financial models for property investments is a critical function for the financial professional involved in any aspect of real estate investment. During this class session we will review together the first two homework assignments and discuss the construction of spreadsheet based property models.

Week 4. Valuation and Capital Markets

The valuation of a real property is generally determined by an analysis of its cash flow. In this class we will review the mechanics of evaluating cash flow streams including methods such as NPV and IRR. We will discuss the use of discount rates in valuation calculations and the impact of terminal value on overall valuation. We will then discuss how to determine the appropriate discount rate to use in a valuation calculation.

Once we understand the mechanics of valuation. We will look at the relationship between real estate discount rates and general market conditions, sources of market data and how the fundamentals of a particular property can impact its discount rate.

Over the last twenty years the real estate capital markets have matured and expanded. Sources of real estate investment capital include individual investors seeking current

income with inflation protection and institutional investors providing diversification and stability to broadly invested global portfolios. This capital seeks differing levels of risk from opportunistic equity investment to traditional single asset mortgage financing. In today's hypercompetitive markets real estate is in constant competition with many other asset classes for the investor's capital. This freedom of capital flow has been brought about by the development of secondary markets for many previously illiquid property interests. The CMBS (Collateralized Mortgage Backed Securities) and publicly traded REIT (Real Estate Investment Trust) securities markets are evidence of this trend.

At the conclusion of Week 4 the student should be able to develop a cash flow model for a property and apply a valuation methodology understanding the major drivers of real property valuation metrics and sources of market data.

Week 5. Debt: Basic

The Mortgage is the most basic form of real estate debt investment. The traditional Mortgage is a loan whose proceeds have been used to allow an investor to purchase a property. The amount and interest rate of the loan is determined by the open market value of the property, the amount and quality of the cash flow, the term of the financing and the seniority of the lenders claim against the property. The typical mortgage is repaid over the term of the loan through monthly payments that include interest and a portion of the principal. Mortgage bankers, who may be independent brokers or affiliated with commercial banks, investment banks, insurance companies or pension funds, help borrowers structure mortgages that optimize each asset's borrowing capacity. These investors may hold the loan for their own investment account or may sell the loan, or an interest therein, in an active secondary market.

Week 6. Debt: Advanced and the impact of the Financial Crisis

Using our understanding of mortgages as a starting point we expand into a deeper view of real estate debt financing. Not all properties are fully built out and tenanted and debt can be structured to reflect the particular stages of an assets life cycle (development, construction, take out or permanent financing). For property types that have characteristics of inventory (land parcels, condominiums) debt can be structured to facilitate the sale of completed inventory (end loans). Debt can also be structured for the financial buyer or opportunity fund (mezzanine debt) borrower that seeks a high loan to value ratio.

The breadth of the real estate debt market is also reflected in the variety of capital sources and products for investors. Commercial mortgages are aggregated in pools and various types of interests are derived from the cash flows generated by these portfolios. Large, complex debt transactions are often shared by multiple lenders forming syndicates. Many owners of property move between corporate and asset financing for their properties depending on market appetite for each type of investment. Credit

agencies have become critical financial experts providing guidance to investors by performing financial analysis on the structure and credit of the ever more complex array of debt financing vehicles.

At the moment, the real estate debt markets, as a critical part of the world capital markets, are in a tremendous state of flux. The future of commercial and residential real estate financing structures is evolving day by day. We will look at the current state of these markets and the implications for the industry and for the broader capital markets.

Week 7. Equity

Once the expenses of a property are paid, funds are set aside for recurring capital expenditures and debt service is satisfied, the residual economic interest in a property is owned by its equity investors. As a residual interest, subject to many prior claims, the equity absorbs the majority of the risk of the property marketplace and reaps the majority of the rewards.

Over the years, property ownership has spread from the unique province of wealthy individuals to the mass investor as new vehicles have formed to aggregate investment capital. Real Estate Investment Trusts, Master Limited Partnerships and Syndicated Limited Partnerships have all been used successfully to aggregate capital from individual investors to purchase major commercial properties and portfolios. These vehicles issue equity securities that can trade in a secondary market providing a source of liquidity for property investors that is more immediate than that available in the property markets.

Week 8. Capital Structure / Advanced Financing Techniques / REITS

Capital Structure / Advanced Financing Techniques

There are many alternative sources of capital available to the owner of real property. These include traditional forms of debt and equity as well as more recently developed hybrids and derivatives. The unique cash flow generation ability of real estate and the legal, tax and accounting environment provide a set of constraints around which we need to structure the financing of real property assets. The availability and cost of capital are impacted by these asset specific variables and general conditions in the capital markets. The optimization of capital structure can significantly impact the value and liquidity of a real property investment.

There are limitless ways in which the benefits of property ownership can be segmented to attract specific pools of capital thus optimizing the financing for an asset. The line between debt and equity has blurred as mezzanine debt and preferred equity structures have arisen to facilitate more creative financing of projects. Methods have been developed to segment tax attributes of property investment for use by investors with

specific goals. Government programs in support of economic development, environmental remediation, historic preservation and other societal goals provide supplemental project financing through tax incentives. These structures, once exotic, are now commonplace in the financing of major commercial properties.

Real Estate Investment Trusts

Created by an act of Congress in 1960s, Real Estate Investment Trusts were seen as an investment vehicle that would allow the common man to aggregate capital for commercial real estate investment and enjoy the tax benefits previously only available to wealthy investors. During the following thirty years, a number of companies were formed that used the REIT structure to purchase portfolios of shopping centers, apartments and small office buildings with varied degrees of success. In the early 1990's, a new tax structure, known as an operating partnership, allowed REITs to acquire appreciated properties without triggering a tax consequence to the seller. Overnight, REITs became the strategic choice for the financially pressured entrepreneurial investor seeking liquidity in an unfriendly real estate market and the public investor seeking to participate at the perceived bottom of the market. In the last ten years, REITs have become the investment vehicle of choice for individuals and institutions seeking liquidity and transparency in their real estate investments.

Week 9. Development Financing

There are three stages to the development process. The first stage is the pre-development stage in which a site is identified and a project is planned and entitled. The second stage involves the construction of the project from site preparation, to shell construction to interior and exterior finish. The last stage, for most projects, is lease-up and economic stabilization. At each stage of the development cycle the project will have a different capital requirement and financial risk profile. Due to their complex and changing nature development projects require the full array of real estate financing techniques.

Week 10. NYC Development Presentations

The class is divided in to groups of three or four students for the purpose of preparing presentations:

Half of the class will undertake an analysis of an iconic New York City real estate development project. During this session each group will present its findings before a group of distinguished real estate professionals who will question the presenters and rate each presentation.

Corporate Real Estate

For many corporations, real estate in its many forms is a critical part of their asset base and cost structure. Corporations can have a number of different relationships with their real property assets from direct ownership, to long term lease, to short term rental. The choice between these relationships depends on the strategic relationship between the real estate property and the overall corporate mission and strategy. These choices can also have profound implications for the corporate balance sheet and financial performance.

Week 11. International Real Estate

Foreign investment implies exposure to a new set of diverse risks and potential rewards. The risks and rewards of investing in real estate are now shadowed by geopolitical risk, currency risk, foreign legal and taxation systems and rules on investment and repatriation of capital. Many foreign markets lack the depth and sophistication of the US capital markets.

Expanding any business into new markets makes logistical demands on management. Operating overseas in different time zones, in different languages and in different cultures requires a high level of sophistication. Communication is complicated and involves considerable effort and costs in time and travel which are not present in local markets. Historically the real estate business has been a fragment industry dominated by local experts. Is this about to change?

Does international investment in real estate warrant the required effort? Do foreign markets provide diversification and above average returns or do they correlate with the behavior of the US markets.

What are the new challenges for US players in foreign markets in the post 9/11 world? What are the risks of accepting foreign capital and joint venture partnership opportunities in the age of the Patriot Act?

International Real Estate Presentations

During the second half of this class: the student teams that have been assigned international real estate presentations will present the structure of the real estate market in the assigned foreign country. An outline of the topics to be covered in the presentation will be posted.

Week 12. Housing

For this final lecture we will look at the US Housing market from both a business and a personal perspective. During the first half of this lecture, we will look at the US Housing market and how it has developed during the past 100 years.

The financial structure of the US Housing market was shaped by the Great Depression the housing finance programs that were developed as a response to the bank failures of that period. We will look at how the visual landscape of the country and the built aspects of the housing market were impacted by the post WWII baby boom and suburban expansion. We will then review the S&L crisis and the development of the CMBS market in the 1980's as the set piece for modern housing finance. For the roots of the current built environment, we will look at New Urbanism as a response to sprawl.

During the second half of the lecture, we will examine personal housing decisions, how they are made, and the metrics involved. We will then look at housing options for the young professional in and around New York City. We will cover the steps in the "home" buying process and how to establish yourself in the housing market.

Information about the MBA Real Estate Specialization

The Real Estate specialization at NYU Stern provides rigorous training in:

- (i) the economics of real estate development and investment,
- (ii) the structuring, financing and taxation of real estate transactions and entities,
- (iii) the pricing/valuation and trading of financial instruments with real estate as the underlying asset, such as Real Estate Investment Trust (REIT) securities, residential and commercial mortgage-backed securities (MBS), and related derivative and structured finance products such as collateralized debt obligations (CDOs), credit default swaps (CDS), and index products (CDX, ABX, etc.),
- (iv) the workings of real estate primary and secondary markets, including the various participants in these markets and their roles, and
- (v) the legal, taxation, and regulatory environment surrounding the real estate industry.

Elective courses can be chosen to emphasize the commercial real estate development process or the investment strategies in real estate capital markets. With an appropriate choice of elective courses, this track provides in-depth preparation for careers in real estate development, real estate brokerage, real estate project investment for private equity firms, family offices, sovereign wealth funds, and careers in real estate finance in the fixed income or equity desks of investment banks (research, sales & trading), hedge funds, and sovereign wealth funds.

*Real estate specialization courses: **three courses** among this list must be taken for the specialization (all courses are 3 unit courses):*

1. Real Estate Primary Markets (**FINC-GB.2329**, co-req: Corporate Finance [FINC-GB.2302](#))
2. Real Estate Capital Markets (**FINC-GB.2339**)

3. Real Estate Transactions (**BSPA-GB.2300**)
4. Real Estate Development and Entrepreneurship (**OPMG-GB.2360**)
5. Real Estate Investment Strategies (**FINC-GB.2341**)
6. Urban Systems (**ECON-GB.3375**)
7. Operations in Panama (**OPMG-GB.2312**)
8. Operations in Entertainment: Las Vegas (**OPMG-GB.2360**, with approved real estate project)
9. At most one course from the list of pre-approved non-Stern courses:
<http://www.stern.nyu.edu/AcademicAffairs/Specializations/RealEstate/index.htm>

Academic advisor for the real estate specialization: Prof. Stijn Van Nieuwerburgh