

## **Syllabus Real Estate Investment Strategies – Spring semester AY 2013-14**

*This draft: October 10, 2013. This syllabus is subject to future revisions*

### **Instructor**

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Office Hours: Wednesday 5-6pm, after class in the classroom, or by appointment.

### **Teaching Assistants**

The teaching assistant for this class is Vadim Elenev ([velenev@stern.nyu.edu](mailto:velenev@stern.nyu.edu)). His office hours will be announced on the NYUclasses site and in the first class. He is here to help you through the course. Do not hesitate to contact them with questions about the class material.

### **Class Time**

The class meets once per week on Tuesday from 6-9pm during 12 weeks. There is a 20 minute break around 7.30pm. The venue is KMEC, Room MX-XX. The first class is on 02/11/2014, the last class is on 05/06/2014 (final exam). There is no class on 03/18/2014 (spring break).

### **Content**

The course is designed for MBA and undergraduate students with a strong interest in real estate capital markets. Its target audience is students specializing in Real Estate, for whom this is a capstone course, but is also open to finance-oriented students who wish to gain an in-depth understanding of real estate investment analysis. See more information on the Real Estate specialization for MBAs and the Real Estate track for undergraduates at the end of this syllabus.

Topics covered will span the real estate equity and debt markets, both public and private. The bulk of the course focuses on commercial real estate, but we will spend some time studying the housing markets. There are three major sections in the course: Structured finance and the CMBS market, REITs and Publicly-Traded Real Estate, the Private Real Estate Market.

The class will contain a mixture of standard lectures, guest speakers, and case discussions. It will meet once per week for three hours to accommodate the relatively high number of outside speakers and cases in the course.

## Prerequisites

The only formal pre-requisite for this course is Foundations of Finance (MBA) or Foundations of Financial Markets (UG).

The course presumes basic knowledge of real estate finance at a level taught in Real Estate Primary Markets or Real Estate Capital Markets, even though those are not formal pre-requisites. For those looking for an introductory course in real estate secondary markets, the Real Estate Capital markets course would be more appropriate.

A portion of the course will go in some depth into modeling and will use quantitative tools. Intimate knowledge of time value of money is required and prior coursework in fixed income securities and valuation would be useful.

The appropriate tools necessary for solving these problems will be developed at each stage and practiced in the homework assignments. The models we will cover have immediate applications and implications for real-world financial decisions. Every effort will be made to relate the course material to current financial news.

## Readings

The readings will be a mix of textbook materials and academic papers, with the goal of marrying sound theory and empirical analysis with relevant current events and practices. Class sessions are organized with the same goal in mind. I will deliver a number of lectures outlining what economics and finance tells us about a number of topics. Generally, these will be followed by guest lectures from industry professionals who will focus on a specific application of the principles introduced in the lectures.

## Staying Up-to-Date

You are strongly encouraged to follow real estate finance news, broadly defined. If you encounter an interesting article that you would like to share with the class, please send me an email and I will post it on the class web site. A section of the NYUclasses site will be devoted to interesting background articles, and this section will be regularly updated during the semester.

## Classroom Civility

Your behavior should respect your classmates desire to learn. Each lecture begins and ends exactly on time. I understand your busy schedules, but try not to come late. Because of the classroom layout, it is disruptive no matter how quiet you are. If you must miss a class or must come late, please let me know by email beforehand.

Laptop is allowed during class since we will be using some computer files during the lecture. While laptops have advantages in the classroom, they also have the potential to hamper your own learning experience as well as that of your neighbors. Please restrict your use to the software that we will be using and to the class materials.

The use of Blackberries, iPhones, iPads, cell phones, and similar devices is not allowed. Please turn them off before entering class. Do not engage in side conversations during the lecture. Repeated occurrence of such disruptions will be reflected in the final grade.

## Grading and Assignments

At NYU Stern, we strive to create courses that challenge students intellectually and that meet the Stern standards of academic excellence. To ensure fairness and clarity of grading, the Stern faculty have agreed that for elective courses the individual instructor or department is responsible for determining reasonable grading guidelines.

Grades will be based on the final exam (40 percent), the problem sets (20 percent), a final project (20 percent), and class participation (20 percent). The usual Stern grading guidelines will be followed. Grades are not subject to negotiation.

The final exam tests your understanding of the key concepts in the class. They do not test your ability to memorize or to use your computer. As a result, they may be more challenging than the exams you may be used to. To prepare for the exam, you should review the slides together with your own class notes, the readings, and the problem sets. The final exam covers the material of the entire semester. . If you must miss an exam, you will be required to make it up after the semester is over. No laptops, iPhones, or unapproved smart calculators are allowed on the exam.

There will be four problem sets over the course of the semester. Each problem set contains one excel question, emphasizing a practical implementation of a concept. The problem sets are graded on a ten point scale. Late problem sets will *not be accepted*. You are encouraged to work in groups on the problems, but you must hand in your own copy and you are asked to acknowledge any help you received on the front page of your copy. The homework questions will be in the same spirit of the exam questions, but slightly easier. After all, they are your first encounter with the implementation of the material.

The final project involves coming up with an investment hypothesis, presenting data and analysis to support it, and presenting it in the last class of the semester. This is a group project in teams of 3-4 students.

## Honor Code

You are responsible for maintaining Stern's Honor Code which mandates zero tolerance for cheating and plagiarism. Violations of the honor code will be prosecuted with a minimum penalty of failure for the course, as required by code of conduct rules. If you become aware of any violations of the honor code you must take whatever steps are necessary to stop the violators. Per request of the dean, you must include a signed statement at the top of each problem set and exam, indicating that you adhere to the honor code. The statement is:

*"I pledge my honor that I have not violated the Stern Honor Code in the completion of this exam/problem set."* It is in your best interest that the market place knows that Stern takes honesty seriously; it adds to the value of your degree.

## Study Groups

It is highly recommended that you regularly review the class material in your study group. Don't wait until exam time to meet with your group. By then it's too late. You are encouraged to work on the problem sets with your study group, but you must hand in your own answers.

## Class Schedule

Below is a detailed schedule of the date and topic of each class. Required readings are indicated as RR, suggested readings as SR. The chapter numbers refer to BKM edition 9 and to RWJ, edition 6. The readings starting with 'H' are handouts, situated at the end of your course packet. Homework due dates are also mentioned.

Class and date	Topic	Readings
1. Feb. 11, 2014	REITS basics review and REITS in the financial portfolio	GM Ch 21, 22, 23, 24, 26, 27, GK
2. Feb. 18, 2014	Fundamental and Capital structure-based REIT strategies	
3. Feb 25, 2014	Quantitative REIT strategies	
4. Mar 4, 2014	Focus on Mortgage REITS	
5. Mar 11, 2014	CMBS basics review	
6. Mar 25, 2014	CMBS valuation	
7. Apr 1, 2014	CMBS and Equity REIT strategies	
8. Apr 8, 2014	Private Equity: Institutional Investment in Single-Family Housing (REO to Rental)	
9. Apr 15, 2014	Trading Distressed/Legacy Subprime MBS	
10. Apr 22, 2014	Trading MBS IOs and Mortgage Servicing Rights	
11. Apr 29, 2014	Private and Public debt and Equity – a Capstone session	
12. May 6, 2014	In-class final exam & project presentations	

1. [GM] Geltner, David and Norman G Miller, Commercial Real Estate Analysis and Investments
2. [GK] Gyourko, Joseph, and Donald B. Keim, 1993, Risk and return in real estate: evidence from a real estate stock index, Financial Analysts Journal (September-October), 39-46

Reading List to be completed

## 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, the financing such projects, leasing, and appraisal of buildings, (ii) the pricing/valuation and trading of financial instruments with real estate as the underlying, such Real Estate Investment Trusts (REITS), 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.), and (iii) the workings of real estate primary and secondary markets, including the various participants in these markets, their roles, and (iv) the legal, taxation, and regulatory environment. 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

## Information about the Undergraduate Real Estate Track

The Real Estate Track provides rigorous training in (i) the economics of real estate development and investment, the financing such projects, leasing, and appraisal of buildings, (ii) the pricing/valuation and trading of financial instruments with real estate as the underlying, such Real Estate Investment Trusts (REITS), 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.), and (iii) the workings of real estate primary and secondary markets, including the various participants in these markets, their roles, and (iv) the legal, taxation, and regulatory environment. Elective courses can be chosen to emphasize the commercial real estate development process (RED focus) or the investment strategies in real estate capital markets (REF focus). 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.

### *Prerequisites*

- Stern Business Tools
- Law, Business, and Society
- Foundations of Financial Markets (FINC-UB.0002)

### *Essentials*

- Corporate Finance (FINC-UB.0007, req: Foundations of Financial Markets)
- Real Estate Transactions (MULT-UB.0051)
- Real Estate Primary Markets (FINC-UB. 0039, co-req: Corporate Finance)
- Real Estate Capital Markets (FINC-UB.00 38, req: Foundations of Financial Markets)

*Advanced Electives – Four courses from the following list, of which at least one of the first two courses. The courses denoted by [REF] are more interesting for students who want to specialize more towards a real estate finance specialization, whereas the courses denoted with [RED] are more interesting for students who want to focus on the development, direct investment, or management of property.*

- [RED] Real Estate Development and Entrepreneurship (MULT-UB.0050)
- [REF] Real Estate Investment Strategies (FIN-UB.00XX)
  
- [RED] Urban Economics (ECON-UA 227 – CAS)
- [RED/REF] Financial Statement Analysis (ACCT-UB.0003)
- [RED] Taxation of Individuals (ACCT-UB.0063)
- [REF] Risk Management in Financial Institutions (FINC-UB.0022)
- [RED/REF] Topics in Emerging Financial Markets (FINC-UB.0023)
- [REF] Debt Instruments (FINC-UB.0026)

- [RED/REF] Behavioral Finance (FINC-UB.0029)
- [REF] Equity Valuation (FINC-UB.0041)
- [RED] Topics in Entrepreneurial Finance (FINC-UB 61)
- [RED] Mergers, Acquisitions, and Restructuring (FINC-UB 50)
- [REF] Monetary Policy and the Financial System (ECON-UB 221)
- [REF] Macroeconomic Foundations for Asset Prices (ECON-UB 233)
- [RED] Strategic Analysis (MGMT-UB 18)
- [RED/REF] Negotiation and Consensus Building (MGMT-UB 30)

For more information on the Stern undergraduate track system, please see <http://www.stern.nyu.edu/portal-partners/current-students/undergraduate/academics/tracks/index.htm>

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