

THE UNIVERSITY OF WISCONSIN
Department of Real Estate and Urban Land Economics
Fall session - 2014
RE410, Real Estate Finance

Instructor

Erwan Quintin, Real Estate Department
Office: 5257 Grainger Hall
Office hours: 11am-3pm, T,Th and by appointment
E-mail : equintin@bus.wisc.edu
URL: erwan.marginalq.com

Course Objective

My goal in his course is to discuss the theory and practice of real estate asset valuation. In the process, you will become familiar with the structure of the real estate industry, its key institutional features, as well as the mathematical and computational tools on which real estate professionals rely. We will begin by reviewing the relevant foundations of financial economics and will then discuss their applications to real estate questions.

Resources

The main sources of material for this course are my power point slides and my notes, which I make available on my website.

I am also recommending that you avail yourself of the following textbook (hereafter referred to as GM): “Commercial Real Estate Analysis and Investments,” D.M. Geltner, N.G. Miller, J. Clayton, P. Eichholtz, Cengage Learning, 2007. The list of topics below tells you which chapters you should read as the course moves along. While doing so is not necessary to do well in my class, you will learn much more if you do the reading than if you don’t, and you will see the topics we study in class tackled from a very different perspective from mine.

As you are taling this course, you should also read “Global Property Investment,” A. Baum and J. Hartzell, Wiley-Balckwell, 2011. The book is a quick read and drives home the fact that real estate has become a global asset class.

As in all finance courses at this level, we are going to make heavy use of basic algebra. I will also expect you to become proficient with some advanced features of Excel, the gold standard for number crunching in Real Estate.

Grading

Homework (25%), midterm (35%), comprehensive final (40%).

Problems sets will be handed out more or less on a weekly basis. Homework problems are difficult and involve computer tasks in most cases. Although I encourage you to collaborate with other students on assignments, each student must turn in his or her own set of answers. In particular, everyone should write and turn in their own Excel applications. Your homework should be as neat as possible. On each assignment, 5 points will be awarded for proper presentation.

Assignments are due at the start of lecture on the due date. No late assignment will be accepted, barring a documented emergency or an exception within the University's guidelines.

The business school grading policy will apply. Namely, "For all [...] undergraduate courses with class numbers below 600 and 15 or more students enrolled, the mean grade should be no higher than 3.3 and the maximum percentage of A's is 30%."

List of topics and GM readings

1. Preliminaries
 - (a) The question (asset pricing) (GM 8, 9)
 - (b) Real estate assets (GM 7, 20, 23)
 - (c) Example: FRM yield vs. return (GM 16, 17)
 - (d) Theory vs. practice
2. Asset pricing fundamentals
 - (a) Notions of probability (GM 21)
 - (b) Financial economies
 - (c) Classical portfolio theory (GM 21)
 - (d) CAPM (GM 22)

- (e) Option pricing (GM 27)
 - (f) Modigliani-Miller (GM 13) ...
 - (g) ... and beyond
 - (h) WACC at work
3. Real estate investment analysis
- (a) Cash flow proformas (GM 6, 11)
 - (b) Discounted Cash Flow (DCF) approach (GM 10)
 - (c) Ratio approach
 - (d) Debt and Taxes (GM 13, 14, 15)
4. Mortgages
- (a) Legal framework (GM 16)
 - (b) Basic mortgage algebra (GM 17)
 - (c) Default and Prepayment risk
 - (d) Refinancing
 - (e) The underwriting process (GM 18)
 - (f) Securitization (GM 20)
 - (g) The foreclosure crisis
5. Advanced topics
- (a) Fixed Income methods
 - (b) Pricing Credit Default Swaps
 - (c) REIT valuation