



## Course and Examination Fact Sheet: Spring Semester 2017

### 8,172: Real Estate Finance

ECTS credits: 4

#### Overview examination/s

(binding regulations see below)

Decentral - Written examination (60%, 60 mins.)

Decentral - examination paper written at home (individual) (40%)

#### Attached courses

Timetable -- Language -- Lecturer

[8,172,1.00 Real Estate Finance](#) -- Englisch -- [Adams Zeno](#), [Füss Roland](#)

#### Course information

#### Course prerequisites

Students should be interested in finance and investments and should have an intermediate knowledge of mathematics and statistics, as well as microeconomics and macroeconomics (course in economic principles).

#### Course content

This course introduces students to the theoretical foundations and practical applications of real estate asset management and investment strategies. Students gain fundamental insights into real estate capital markets, valuation techniques, debt and equity finance, and real estate investment strategies. The course also provides a comprehensive coverage of (international) real estate capital markets and the structure of securities, such as REITs, private funds, and property derivatives. There will be also an extensive discussion of current developments in the real estate sectors, such as sustainability and green investing in the real estate sector. There will be tutorials in R to provide practical experience.

In particular, students will

- become familiar with the real estate space and asset markets, their financial fundamentals, and main indicators which are essential for market analysis (such as the interaction between rent, vacancy rate, construction, and absorption);
- learn how to value direct and securitized real estate to support investment decisions in real estate markets using different valuation techniques;
- understand the use of debt in financing commercial and residential properties as well as the structure and functioning of mortgage markets;
- get to know how to invest in national and global real estate markets, and how to use property derivatives to hedge portfolio risk.

The course aims to provide students with a profound knowledge of financing and investment strategies in direct and securitized real estate markets. Because the course covers the principles of real estate finance and investments, it is suitable for students who wish either to continue their academic career in the field of real estate finance or aim for a position in the real estate industry.



## Course structure

The course will be structured according to the following aspects:

- *Real estate markets*: How are markets for space and asset markets interrelated? What are the main indicators needed to analyze real estate markets?
- *Real estate valuation*: How do we value commercial or residential properties? Which techniques do we use to value income properties? How are listed real estate companies being priced?
- *Real estate financing*: What are the typical debt financing instruments? How do we finance residential and commercial properties? What are commercial and residential secondary markets? How to price a mortgage pool and collateralized mortgage obligations?
- *Real estate investments*: What are real estate investment trusts? How can we invest in real estate and which investment vehicles really provide exposure to the property market? How do REITs structure their capital and what is the effect of leverage? What are the financial benefits of green buildings? How can we make use of real estate derivatives to hedge portfolio risk?

Because the aim of the course is to familiarize the students with the basic concepts of real estate finance and investments, it offers tutorials in addition to formal lectures. Students will be graded based on the final exam and four R assignments that will be handed out during the term. A guest lecturer is invited to deliver insights into his/her practical experience.

- *Formal lectures* are given for basics on real estate valuation, finance and investing topics and to provide the theoretical and analytical framework;
- *Tutorials* are provided to practice the topics discussed in lectures;
- *Assignments* are offered to deepen the understanding of the concepts and to enable a more intensive examination of the course contents. The four assignments facilitate further to apply the theoretical knowledge to a specific business situation.
- *Guest lecturers* complete the course by sharing their practical expertise and discussing with the students the latest trends on real estate financing and investing.

## Course literature

- Brown, G.R., and G.A. Matysiak (2000): *Real Estate Investment – A Capital Market Approach*, Harlow, UK: Financial Times/Prentice-Hall.
- Brueggeman, W.B., and J.D. Fisher (2010): *Real Estate Finance and Investments*, 14<sup>th</sup> ed., Boston MA: McGraw-Hill.
- DiPasquale, D., and W.C. Wheaton (1996): *Urban Economics and Real Estate Markets*, Harlow UK: Prentice-Hall.
- Geltner, D., N.G. Miller, J. Clayton, and P. Eichholtz (2007): *Commercial Real Estate Analysis and Investments*, 2<sup>nd</sup> ed., Mason, OH: South-Western Publishing/Thomson Learning.

### Further Recommended Readings:

- Bodie, Z., A. Kane, and A.J. Marcus (2006): *Investments*, 6<sup>th</sup> ed., New York: McGraw-Hill.
- Claureti, T.M., and G.S. Sirmans (2006): *Real Estate Finance: Theory and Practice*, Mason: Thompson Higher Education.
- Gentry, W., C. Jones, and C. Myer. "Do Stock Prices Really Reflect Fundamental Values? The Case of REITs." Working paper, October 2004.
- Greer, G.E., and P.T. Kolbe (2006): *Investment Analysis for Real Estate Decisions*, 6<sup>th</sup> ed., Dearborn Financial Publishing.
- Harding, J.P., E. Rosenblatt, and V.W. Yao (2009): The Contagion Effect of Foreclosed Properties, *Journal of Urban Economics*, 66,



164-178.

- Hoesli, M., and B.D. MacGregor (2000): *Property Investment: Principles and Practice of Portfolio Management*, Harlow, UK: Pearson.
- Kau, J.B., D.C. Keenan, C. Lyubimov, and V.C. Slawson (2011): Subprime Mortgage Default, *Journal of Urban Economics*, 70, 75-87.
- Linneman P. (2004): *Real Estate Finance and Investments: Risks and Opportunity*, Philadelphia: Linneman Associates.

#### Subprime Crisis related Readings:

- Brunnermeier, K. (2009). "Deciphering the Liquidity and Credit Crunch 2007-2008", *Journal of Economic Perspectives*, 23(1), 77-100.
- Burr, S. (2010). "Practitioner's Corner: Be Careful what you Wish for-The Return of the CMBS Market", *Real Estate Finance*, December 2010, 7-9.
- Vogel, J. (2008). "Retooling the CMBS Market", *Real Estate Finance*, August 2008, 3-11.
- Laderman, E. (2012). "Mortgage Prepayment: An Avenue Foreclosed?" *FRBSF Economic Letter*, 2012-05.
- Foote et al. (2008). "Just the Facts: An Initial analysis of Subprime's Role in the Housing Crisis", *Journal of Housing Economics*, 17(4), 291-305.

### Additional course information

#### Selected Assignments for the Course:

- REIT Capital Structure and Effect of Leverage
- Mortgage Market: The Investment Perspective
- Direct Real Estate Indices
- Real Estate Portfolio Management

### Examination information

#### Examination sub part/s

#### 1. Examination sub part (1/2)

##### Examination time and form

Decentral - Written examination (60%, 60 mins.)

##### Remark

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##### Examination-aid rule



## Extended Closed Book

The use of aids is limited; any additional aids permitted are exhaustively listed under "Supplementary aids". Basically, the following is applicable:

- At such examinations, all the pocket calculators of the Texas Instruments TI-30 series and mono- or bilingual dictionaries (no subject-specific dictionaries) without hand-written notes are admissible. Any other pocket calculator models and any electronic dictionaries are inadmissible.
- In addition, any type of communication, as well as any electronic devices that can be programmed and are capable of communication such as notebooks, tablets, PDAs, mobile telephones and others, are inadmissible.
- Students are themselves responsible for the procurement of examination aids.

## Supplementary aids

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## Examination languages

Question language: English

Answer language: English

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## 2. Examination sub part (2/2)

### Examination time and form

Decentral - examination paper written at home (individual) (40%)

### Remark

There are four graded R Assignments

### Examination-aid rule

Term papers

- Term papers must be written without anyone else's help and in accordance with the known quotation standards, and they must contain a declaration of authorship.
- The documentation of sources (quotations, bibliography) has to be done throughout and consistently in accordance with the APA or MLA standards. The indications of the sources of information taken over verbatim or in paraphrase (quotations) must be integrated into the text in accordance with the precepts of the applicable quotation standard, while informative and bibliographical notes must be added as footnotes (recommendations and standards can be found, for example, in METZGER, C. (2015), *Lern- und Arbeitsstrategien* (11th ed., 4th printing). Aarau: Sauerländer).
- For any work written at the HSG, the indication of the page numbers both according to the MLA and the APA standard is never optional.
- Where there are no page numbers in sources, precise references must be provided in a different way: titles of chapters or sections, section numbers, acts, scenes, verses, etc.
- For papers in law, the legal standard is recommended (by way of example, cf. FORSTMOSER, P., OGOREK R. et SCHINDLER B. (2014), *Juristisches Arbeiten: Eine Anleitung für Studierende* (5. Auflage), Zürich: Schulthess, or the recommendations of the Law School).

## Supplementary aids

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## Examination languages

Question language: English

Answer language: English

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## Examination content

Relevant for the exam are the content of the lecture (including slides, assignments, and exercise sets) and the relevant literature.



## Examination relevant literature

In addition to the lecture notes and readings, course material given in the class and made available on StudyNet will be relevant for the exam.

### Please note

We would like to point out to you that this fact sheet has absolute priority over other information such as StudyNet, faculty members' personal databases, information provided in lectures, etc.

When will the fact sheets become binding?

- Information about courses and examination time (central/decentral and grading form): from the start of the bidding process on 26 January 2017
- Information about decentral examinations (examination-aid rule, examination content, examination relevant literature): after the 4th semester week on 20 March 2017
- Information about central examinations (examination-aid rule, examination content, examination relevant literature): from the start of the enrolment period for the examinations on 10 April 2017

Please look at the fact sheet once more after these deadlines have expired.