Course and Examination Fact Sheet: Spring Semester 2020

8,322: Real Estate Economics

ECTS credits: 4

Overview examination/s
(binding regulations see below)
Decentral - Written examination (80%, 90 mins.)
Decentral - examination paper written at home (individual) (20%)

Attached courses
Timetable — Language — Lecturer
8,322,1.00 Real Estate Economics — Englisch — Füss Roland

Course information

Course prerequisites
Students should be interested in microeconomics and macroeconomics, as well as in capital markets and should have an intermediate knowledge of mathematics, statistics, and econometrics.

Learning objectives

- Students learn about real estate markets from an economist's point of view.
- Students understand property markets and their interaction with the overall economy.
- Students understand current trends in real estate markets and apply the necessary tools to conduct real estate market analysis.

Course content

The course Real Estate Economics provides students with the necessary theoretical models and empirical tools to investigate and understand the microeconomic and macroeconomic forces that affect real estate markets. The course covers classical topics such as the relationship among house prices, rents, construction costs, location, and the vacancy rate, but also discusses topics that have recently become important in real estate market analysis such as geographic determinants of housing supply and neighborhood choice.

In particular, students will

- become familiar with the real estate space and asset markets, their fundamentals (such as the interaction between rent, vacancy rate, construction, and absorption), the main underlying economic determinants of real estate supply and demand, the determinants of market equilibrium, as well as short- and long-term adjustments to disequilibrium, all of which are essential for choosing locations;
- examine how urban growth and local, state, and federal government policies (such as taxation, subsidies, regulation (building codes and zoning), and planning) impact the development of cities and the pricing of real estate;
- understand the functioning and interaction of local and regional real estate markets with a special emphasis on the spatial aspect of different property types such as residential, office, industrial and retail properties.

At the end of the course students should have a deeper understanding of property markets and their interaction with the overall economy. Students will be able to understand current trends in real estate markets and will be equipped with the necessary tools to conduct real estate market analysis. The course is suitable for students who wish either to continue their academic career in the field of real estate economics and finance or aim for a position in the real estate development or real estate investment industry.
Course structure
The course will be structured according to the following aspects:

- **Real estate markets:** How are the property space market and the asset market interrelated? What are the economic fundamentals of real estate markets?
- **Residential Development:** How can we explain the choice of housing location and rents? What is the fair value of a specific house? What should be the density and use of a newly developed site? How can housing submarket boundaries be identified? How do house prices vary across sites, and why? How do housing markets adjust to disequilibrium? What are the determinants of tenure choice? How can exogenous shocks to a market amplify real estate cycles?
- **Commercial Development:** How do commercial real estate developers analyze potential locations? What are the drivers of commercial real estate demand and supply? What factors determine office rents or the location of firms? How do firms choose their locations within a metropolitan area? Why does spatial concentration of industrial and retail properties exist?
- **Local Government and Regulating Development:** How do public goods and local externalities affect property values (neighborhood effects)? What are the determinants of land prices? What are the fiscal incentives for land use regulation? What are the socio-economic benefits of homeownership and the value of federal government programs to make housing affordable? How do foreclosed properties affect the neighborhood?

Students will be graded based on the final exam.
- **Formal lectures** are given for basics on micro- and macroeconomic real estate market topics and to provide the theoretical and analytical framework;
- **Problem sets** are provided to practice the topics discussed in lectures and to deepen the understanding of the concepts.

Course Outline

1. **Introduction to Real Estate Markets**
   (Real Estate Asset and Property Markets, DiPasquale-Wheaton Four Quadrant Model, The Micro and Macro Views of Real Estate Markets, Revealed Preferences, Exogenous and Endogenous Factors, Capitalization Rates)

2. **Microeconomic Analysis of Property Markets (Urban Economics)**

3. **Macroeconomic Analysis of Property Markets**
   (Economic Determinants of Metropolitan Growth, Demographic Trends, Regional Growth Trends, Hedonic Pricing Models, Optimal Unit Size and Optimal Development Density, Housing Market Stock Flow Model and Market Dynamics, Indicators for the Real Estate Market, Land Value and Highest and Best Use, Gentrification and Urbanization, Household Location and Community Stratification)

4. **Commercial Real Estate**
   (Intra-metropolitan location decisions, Firm Site Selection, Office, Industrial, and Retail Space, Rental Elasticity, Supply and Demand Indicators, National Hotel Market, Global Cities, Agglomeration Economies and International Trade)

5. **Local Government, Property Taxes, and Real Estate Markets**
   (Taxation, Local Growth Controls, Fiscal Zoning and Housing, Regulation, Land Use)

6. **Aggregate Real Estate Bubbles**
   (Housing and Commercial Real Estate Bubbles, Definition, Measurement, and Drivers)

7. **Forecasting Property Values: Real Estate Market Research**
   (Market Projections and Real Estate Cycles, Use of Geographical Information System (GIS), Regional Market Analysis, Office, Industrial, and Retail Market Analysis)

Course literature

Fact sheet version: 3.0 as of 16/03/2020, valid for Spring Semester 2020
Textbooks


Further Readings:

(Various articles that provide additional insights into different aspects of the course topics.)


Additional course information

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Examination information

Fact sheet version: 3.0 as of 16/03/2020, valid for Spring Semester 2020


1. Examination sub part (1/2)

Examination time and form
Decentral - Written examination (80%, 90 mins.)

Remark
A pocket calculator is required.

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
A pocket calculator is required.

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.

Examination languages
Question language: English
Answer language: English

2. Examination sub part (2/2)

Examination time and form
Decentral - examination paper written at home (individual) (20%)

Remark
Valuation of problem set.

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. (2017), Lern- und Arbeitsstrategien (12th ed., Cornelsen Schweiz).
- 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. (2018, Juristisches Arbeiten: Eine Anleitung für Studierende (6. Auflage), Zürich: Schulthess, or the recommendations of the Law School).
Examination content

Relevant for the exam are the content of the lecture (including slides, problem sets, 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

Please note that this fact sheet alone is binding and has priority over any other information such as StudyNet (Canvas), personal databases or faculty members’ websites and information provided in their lectures, etc.

Any possible references and links within the fact sheet to information provided by third parties are merely supplementary and informative in nature and are outside the University of St. Gallen’s scope of responsibility and guarantee.

Documents and materials that have been submitted no later than the end of term time (CW21) are relevant to central examinations.

Binding nature of the fact sheet:

- Information about courses and examination time (central/decentral) and examination type starting from the beginning of the bidding on 23 January 2020
- Information about examinations (examination aid regulations, examination content, examination-relevant literature) for decentral examinations after the 4th semester week on 16 March 2020
- Information about examinations (examination aid regulations, examination content, examination-relevant literature) for central examinations as from the starting date for examination registration on 6 April 2020

Please consult the fact sheet again after these deadlines have expired.