DRE 4015 Market Microstructure

Programme
Finance

Responsible for the course
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Department
Department of Financial Economics

Term
According to study plan

ECTS Credits
6

Language of instruction
English

Introduction

Please note that this course will be revised before it is offered again

This course is intended for PhD students in finance and related fields. The course is an introduction to market microstructure. Market microstructure has grown rapidly and has become and important subfield of Finance. Research in this field focuses on relationships between price volatility, liquidity, market design and price discovery. Market microstructure models provide a framework for analyzing price determination in financial markets at the micro level. For instance, researchers in this field have analyzed the impact of asymmetric information on liquidity and volatility. There is also a broad literature that analyzes the impact of market design with respect to e.g. transparency, anonymity and auction versus dealer market. Market microstructure has important policy implications for the organization and regulation of security markets.

In this market microstructure course there will be a special attention to the application of market microstructure tools to other fields in Finance. Examples here are asset pricing, behavioral and corporate finance. Microstructure tools have also been very useful to improve our understanding exchange rates and bond pricing. For instance, there is ongoing research combining the macro approach of foreign exchange with market microstructure.

Knowledge of a software package such as SAS, RATS or Eviews etc., or programming skills are required.

Learning outcome

To understand core theory of Market Microstructure
To understand special features of Limit Order Markets and in particular determinants with respect to depth and dynamic order submission strategies
To get insight into how Market Microstructure relates to other fields of finance (Asset Pricing, Corporate Finance and Behavioral Finance)
To understand the Market Microstructure Approach to foreign exchange and why this approach can help understanding the failure of macro models
To understand interrelations between stock, bond and foreign exchange markets from a Market Microstructure perspective

Prerequisites

Admission to a PhD Programme is a general requirement for participation in PhD courses at BI Norwegian Business School.

External candidates are kindly asked to attach confirmation of admission to a PhD programme when signing up for a course with the doctoral administration. Other candidates may be allowed to sit in on courses by approval of the courseleader. Sitting in on courses does not permit registration for courses, handing in exams or gaining credits for the course. Course certificates or conformation letters will not be issued for sitting in on courses

Compulsory reading

Recommended reading

Course outline

1 Asymmetric Information and Inventory Management
Order Flow and adverse selection
Sequential trade models of asymmetric information
Order Flow and the Probability of Informed Trading (PIN)
Strategic Trade Models

2 Limit Order Markets – Determinants of Depth and Dynamic Order Submission Strategies
Overview of limit order markets and market design
Determinants of Depth and Dynamic Order Submission Strategies
Empirical analysis of limit order markets

3 Market Microstructure and other fields of Finance
Asset pricing
Corporate finance
Behavioral finance

4 Market Microstructure and Foreign exchange
The determination puzzle – traditional approaches for FX rate determination
Order Flow and Macro News
Customer Order Flow

A complete list of articles and book chapters will be distributed before the first meeting.

Computer-based tools

Learning process and workload

Workload (6 ECTS)
Lectures: 30 hours.

Specific learning activities (including reading): 130 hours.

Total: 160 hours.

Examination
Your course grade will be based on the following activities and weights:

40 % class work (in the form of a mix of some/ all of the following: hand in of case write ups, projects, and homeworks; case presentations and class participation; in class midterm and quizzes).

60% term paper.

Both parts of the evaluation need to be passed in order to get a grade in the course.

The course will be graded on the ECTS scale, A to F

Examination code(s)
DRE 40151 accounts for 100% of the grade in DRE 4015

Examination support materials
Not applicable

Re-sit examination
Re-takes are only possible at the next time a course will be held. When the course evaluation has a separate exam code for each part of the evaluation it is possible to retake parts of the evaluation. Otherwise, the whole course must be re-evaluated when a student wants to retake an exam.

Additional information

Honour Code
Academic honesty and trust are important to all of us as individuals, and represent values that are encouraged and promoted by the honour code system. This is a most significant university tradition. Students are responsible for familiarizing themselves with the ideals of the honour code system, to which the faculty are also deeply committed.

Any violation of the honour code will be dealt with in accordance with BI's procedures for cheating. These issues are a serious matter to everyone associated with the programs at BI and are at the heart of the honor code and academic integrity. If you have any questions about your responsibilities under the honour code, please ask.