Hong Kong University of Science and Technology
Department of Economics

ECON 4999M Housing Economics (4 units)
2020/21 Fall

Instructor: C.Y. (Eric) NG	**Lecture:** Wed & Fri 1:30pm – 2:50pm
Email: ecyng@ust.hk	**Zoom Meeting ID:** 943 3715 5422
Zoom Personal Meeting ID: 630 678 8279	**Room:**
Office hours: Thu 2:30pm – 3:30pm	
Office: LSK 6016D	**Tutorial:** Tue 6:00pm – 6:50pm
Teaching Assistant: Sunny Wong	**Zoom Meeting ID:**
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Office hours: TBA	
Office: LSK 6066	**Course website:** https://canvas.ust.hk

Course Description

Housing, unlike other goods, has its unique characteristics in terms of heterogeneity, durability, spatial fixity, and high purchase price relative to income. These suggest that conventional economic concepts need to be readdressed in order to analyze the microeconomic issues of housing. Besides, a significant number of households own residential properties by borrowing mortgages. A substantial collapse in housing prices might lead to negative equity for those households, and reduce their consumption and investment thereafter. Therefore, the macroeconomic implication of housing market dynamics cannot be overstated. The US subprime mortgage crisis during 2007–09 suggests that a sharp downturn in the housing market can cause negative spillovers to the aggregate economy. The first part of this course focuses on microeconomic issues like housing demand and supply analysis, models of housing market, rationales and effects of government's housing policies. The second part emphasizes the macroeconomic issues such as the stylized facts on housing market dynamics, causes of housing market fluctuations, and housing market spillovers. Applications to the subprime mortgage crisis of 2007-2009 and housing markets in Hong Kong and China will also be addressed. The objective of this course is to develop analytical frameworks by which students can address both the microeconomic and macroeconomic issues of housing.

Prerequisites

You must have taken basic microeconomics and macroeconomics (ECON 2103/2113 and 2123/3123) and introductory econometrics (ECON 3334) successfully in order to enroll in this course.

Course Intended Learning Outcomes (CILOs)

Upon successful completion of this course, students will be able to:

1. Apply the microeconomic concepts and models to conduct supply and demand analysis of housing markets (PILO 4.2).
2. Understand the economic rationales and effects of public policies on housing (PILO 1).
3. Apply the macroeconomic concepts and models to analyze the dynamics and spillovers of the housing market (PILO 4.2, 6.2).
4. Use the relevant quantitative tools to carry out the empirical analysis of housing markets (PILO 4.2, 7).
5. Formulate and conduct a secondary research project related to housing market issues (PILO 4.2, 7).
6. Communicate effectively in oral and written English (PILO 2).

Teaching Approach

This course is primarily delivered through lectures, in-class discussion, and a group project.

Teaching & Learning Activities	Roles in the Course	Course Learning Outcomes Addressed
Lectures	Explain key concepts and models to students.	1, 2, 3, 4
In-class discussion	Learn to develop critical thinking in analyzing economic questions.	1, 3, 6
Group Project	Learn to identify economic questions, conduct economic research, and present research findings.	1, 3, 4, 5, 6

Assessment Scheme

- Proposal of term paper (Group):   10%
- Term paper (Group):   40%
- Presentation of term paper (Group):   10%
- In-class case study analysis (Group):   10%
- Online Exam/Quiz (Individual):   30%

Please form a group of 3-4 members for doing the group work described above. The actual group size will depend on the actual enrollment. Please submit your group information (names and student numbers) to me by email by 19 Sep (the last date of add/drop period). To prevent free-rider problem, we may conduct peer evaluation to assess individual contribution to the group.

The term paper can be used to fulfill the requirement of ECON 4670 provided that you have not taken ECON 4670 before.

A case study with questions will be given to you in advance for preparing the answers. You will present your thoughts in the class. The assessment will be based on your performance in presenting your answers.

Term Paper

Content Requirements:

- Identify a topic related to one of the themes described below.
- State the hypotheses or research questions being addressed
- Formulate the procedures or methodologies in addressing the hypotheses or questions
- Collection, compilation, and analysis of data and information
- Reporting of the findings

Themes:

- Demand analysis of housing market in a specific city, region, or country
- Supply analysis of housing market in a specific city, region, or country
- Analysis of the effectiveness of public policies in housing markets
- Analysis of potential housing market bubbles in a specific city, region, or country
- Cross-country analysis of housing market bubbles
- Analysis of the causes and consequences of housing market crisis
- Cross-country comparative study of housing market boom and bust cycles
- Analysis of the spillovers from the housing market to the aggregate economy
- Analysis of housing market dynamics related to housing investment or prices

Format Requirements:

- Word document
- A cover page with title and group information (group number, student names and numbers).
- The structure should include an introduction (or executive summary), main body, conclusion, and a list of references.
- **No more than 16 pages** (cover page and tables/charts included) with font size of 11 or 12 and double spacing.

Submission of Proposal:

- Submit a proposal of term paper by email to me no later than **17 Oct**. The earlier you submit the proposal, the earlier you can start working on the term paper.
- The formats of the proposal are as follows:
  - **No more than 5 pages** (cover page and tables/charts included) with font size of 11 or 12 and double spacing.
  - The content of the proposal is expected to include the title of your project, the objectives of your project, the hypotheses or research questions being addressed, the proposed procedures/methodologies in addressing the hypotheses/questions, brief description of datasets or other information that will be used for analysis.

Submission of Term Paper:

- Please submit your term paper by email to me no later than <u>Dec 5</u>.

Presentation of Term Paper:

- You will make a presentation in Week 13. Each group will present for 20-25 minutes.
- Please email your presentation slides to me before your presentation.

Course Outline

1. Housing Demand, Supply, and Equilibrium Analysis (Weeks 1-2)
    - Housing as a standard commodity
    - Housing as a heterogeneous commodity
        - Application: Modeling Hong Kong residential property prices
    - Housing in a spatial context
2. Role of Government in the Housing Market (Weeks 3-4)
    - Rationales for housing policies
    - Policies for equity and efficiency
    - Effects of housing policies
3. Housing and the Macroeconomy (Weeks 5-6)
    - National models of housing and mortgage markets
    - Stylized facts on housing market dynamics
4. Housing Market Fluctuations and Spillovers (Weeks 7-9)
    - Determinants of housing market booms and busts
    - Sources and consequences of housing market fluctuations
    - Business cycle models with housing market
5. Subprime Mortgage Crisis and Financial Crisis of 2007-2009 (Week 10)
    - Causes and consequences
6. Hong Kong and China Housing Markets (Week 11)
    - Current issues in Hong Kong housing market
    - Current issues in China housing market

Note: This is a tentative course outline. I may fine tune the topics while ensuring the course objectives being achieved.

Learning Resources

There is no required textbook for this course. Instead, we rely on lecture notes (downloadable from the course website) for teaching. The original references of the lecture notes and other supplementary readings are also available from the course website.

The content of the course draws on various sources, including books, academic articles, and policy papers. Please refer to the following list for your reference. Those references marked with an asterisk are used heavily in preparing the lecture notes.

References:

*Agnello, L., Schuknecht, L., 2009. Booms and Busts in Housing Markets: Determinants and Implications. *ECB Working Paper Series* 1071, European Central Bank.

Ahearne, A., Ammer, J., Doyle, B., Kole, L., Martin, R., 2005. House Prices and Monetary Policy: A Cross-Country Study. *International Finance Discussion Paper* 841, Washington: Board of Governors of the Federal Reserve System.

Case, K.E., Shiller, R.J., 2003. Is There a Bubble in the Housing Market? *Brookings Papers on Economic Activity* 2, 299–361.

Dokko, J., Doyle, B., Kiley, M.T., Kim, J., Sherlund, S., Sim, J., Van den Heuvel, S., 2009. Monetary Policy and the Housing Bubble. *Finance and Economics Discussion Series*, Divisions of Research & Statistics and Monetary Affairs Federal Reserve Board, Washington, D.C. 2009-49.

*Fallis, G., 1984. *Housing Economics*. Butterworth-Heinemann Ltd, Toronto.

Funke, M., Paetz, M., 2013. Housing Prices and the Business Cycle: An Empirical Application to Hong Kong. *Journal of Housing Economics* 22, 62–76.

Iacoviello, M., 2005. House Prices, Borrowing Constraints, and Monetary Policy in the Business Cycle. *American Economic Review* 95 (3), 739–64.

*Iacoviello, M., Neri, S., 2010. Housing Market Spillovers: Evidence from an Estimated DSGE Model. *American Economic Journal: Macroeconomics* 2 (2), 125–164.

*Choy, L., Mak, S., Ho, W., 2007. Modeling Hong Kong Real Estate Prices. *Journal of Housing and the Built Environment* 22, 359–368.

Glaeser, E., Huang, W., Ma, Y., Shleifer, A., 2017. A Real Estate Boom with Chinese Characteristics. *Journal of Economic Perspectives* 31 (1), 93–116.

*Koss, R., Shi, X., 2018. Stabilizing China's Housing Market. *IMF Working Paper* WP/18/89.

Oxley, M., 2004. *Economics, Planning and Housing*. Palgrave MacMillan, New York.

MacKenzie, D.J., Betts, R.M., Jensen C.A., 2011. *Essentials of Real Estate Economics*. Cengage Learning.

Muth, R., Goodman, A., 2002. *The Economics of Housing Markets*. Routledge.

Ng, E.C.Y., 2015. Housing Market Dynamics in China: Findings from an Estimated DSGE Model. *Journal of Housing Economics* 29, 26–40.

Ng, E.C.Y., Feng, N., 2016. Housing Market Dynamics in a Small Open Economy: Do External and News Shocks Matter? *Journal of International Money and Finance* 63, 64–88.

Shiller, R.J., 2009. *The Subprime Solution: How Today's Global Financial Crisis Happened and What to Do About It.* Princeton University Press, Princeton.

*Wong, S., Tsang, W., Ip, R., Tong, F., Poon, I., Sat, L., 2018. Lacunae in Land Planning: Undersized, Undersupplied and Underestimated. *Land and Housing Policy Advocacy Series* 3. Our Hong Kong Foundation.

Academic Policy

Dishonesty or plagiarism will not be tolerated. Any student violating HKUST Academic Integrity and Honor Code (http://www.ust.hk/vpaao/integrity) will be subjected to disciplinary procedure. Any student observed cheating on exams, or plagiarizing material, will receive an "X" for the course, to show that the grade resulted from cheating. This X grade stays with your record until graduation. If you cheat again and "earn" another X grade, you will be dismissed from the University.