Public Finance
(Spring 2016)

Instructor:

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Course Objectives and Aims:

The aims of this course are to introduce students basic concepts of public finance, particularly in the context of macroeconomic policies. The course will also provide students relevant theoretical methods to analyze government public finance policies. The course will emphasize on applications of advanced macroeconomics to public finance, where microeconomics assumptions such as the optimal behavior of each agent over time are introduced. Thus the course will include the review of introductory microeconomics and macroeconomics.

Although the first one or two classes will be devoted to cover the conventional macroeconomic fiscal policies within the IS=LM framework (static model), models used in this course are mainly dynamic: An intertemporal optimization concept will be introduced. In the first half of the course, the overlapping generations model will be examined in detail with several applications to public finance, in which the effects of government debts, public pension scheme, and a demographic change will be discussed. The other half of the course will cover the infinitely lived agent model, in which the mathematical technique for dynamic optimization will be introduced. The infinitely lived agent model (Ramsey model) will be examined with several applications to public finance such as the effects of fiscal policies on economic growth, and human capital. The endogenous growth model will also be introduced in the other half of the course.

One of the aims of this course is to give students powerful and sufficient techniques to evaluate/analyze actual public finance policies ongoing in their home countries with rigorous economics tools.

Teaching Methods:

Lectures, exercises and discussion will be given to students.

Prerequisite:

Microeconomics, macroeconomics, and mathematics. The course does not assume any strong background of math, and thus it will introduce supplementary materials and textbooks of math, based on the assumption that any students have not studied the math for macroeconomics dynamics such as dynamic optimization. However, the course does request students their strong enthusiasm in understanding the math, which is now a kind of "common sense" in macroeconomics at the graduate level. Note also that students are requested to have fair understanding of basic microeconomics, since the materials taught in this course are fully based on macroeconomics with microeconomics foundations.

Texts:

Core Text (required):

No required textbook is needed, since this course will cover many topics in public finance. Thus, the students are strongly requested to read through relevant study materials mentioned during the course, as well as the following supplementary textbooks.

Supplementary Texts:

Acemoglu, Daron, ***Introduction to Modern Economic Growth***, Princeton University Press, 2009 (ISBN: 978-691-13292-1)

Azariadis, C, ***Intertemporal Macroeconomics***, Blackwell, 1993 (ISBN: 1-55786-366-0)

Blanchard, O. and S. Fischer, ***Lectures on Macroeconomics***, MIT Press, 1989

Barro, R. J. and X. Sala-i-Martin, ***Economic Growth***, McGraw-Hill, 1995

Bewley, Truman F, ***General Equilibrium, Overlapping Generations Models, and Optimal Growth Theory***, Harvard University Press, 2007 (ISBN: 978-0-674-02288-2)

Chiang, A. C., ***Elements of Dynamic Optimization***, McGraw-Hill, 1992 (ISBN: 0-07-112568-X)

Cooper, Russell and J Adda, ***Dynamic Economics***, MIT Press, 2003 (ISBN: 978-0-262-01201-0)

Croix, David De La and Philippe Michel, ***A Theory of Economic Growth: Dynamics and Policy in Overlapping Generations***, Cambridge University Press, 2002 (ISBN: 0-521-00115-3)

Ihori, Toshihiro, ***Public Finance in an Overlapping Generations Economy***, Macmillan, 1996, (ISBN: 0-333-66192-3)

Intriligator, M. D., ***Mathematical Optimization and Economic Theory***, Prentice Hall, 1971

Kamien, M. I. and N. L. Schwartz, ***Dynamic Optimization: The Calculus of Variations and Optimal Control in Economics and Management***, 2nd Edition, Elsevier, 1991

Kocherlakota, Narayana R, ***The New Dynamic Public Finance***, Princeton University Press, 2010 (ISBN: 978-0-691-13915-9)

McCandless Jr., George T. with Neil Wallace, ***Introduction to Dynamic Macroeconomic Theory: An Overlapping Generations Approach***, Harvard University Press, 1991 (ISBN: 0-674-46111-8)

Myles, Gareth D., ***Public Economics***, Cambridge University Press, 1995 (ISBN: 0-521-49721-3 (hard), 0-521-49769-8 (paper))

Romer, David, ***Advanced Macroeconomics***, McGraw-Hill, 1996 (ISBN: 0-07-053667-8)

Sargent, T., ***Dynamic Macroeconomic Theory***, Harvard University Press, 1987

Stachurski, John, ***Economic Dynamics: Theory and Computation***, MIT Press, 2009 (ISBN: 978-0-262-01277-5)

Tvede, Mich, ***Overlapping Generations Economies***, Palgrave, 2010 (ISBN: 978-0-230-24334-7)

Further reading materials will be introduced during the course.

Class Schedule:

The chapters in the above books students should read will be referred in advance.

Class 1: Introduction: Review of Static Macroeconomics: Public Finance within the IS=LM Model
Class 2: Macroeconomics with microeconomics foundations: Departure from the IS=LM model to more sophisticated macroeconomics
Class 3: Introduction to the Overlapping Generations Model
Class 4: The Overlapping Generations Model and Public Finance I
Class 5: The Overlapping Generations Model and Public Finance II
Class 6: Dynamic programming and Optimal Control I
Class 7: Dynamic programming and Optimal Control II
Class 8: Ramsey Model (Infinitely lived agent model)
Class 9: Intertemporal Fiscal Policies in the Infinitely Lived Agent Model
Class 10: Endogenous Growth Model and Public Finance

Evaluation:

Two written exams (midterm and final) only.