Course sysllabus

EE432: Monetary theory and policy (Semester 2/2016)

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1. **Logistic information:**

Instructor: Kittichai Saelee
Lecture: Rm#206; Tuesday and Thursday, 11.00 am – 12.30 pm
Contact:
Email: kittichai_lee@econ.tu.ac.th
Office hours: Rm#516; Wednesday 14:00 – 17:00, or by appointments

Important dates:

Midterm exam:	March 7th 2017;	11.00-13.00
Final exam:	May 29th 2017;	13.30 – 16.30

2. **Course description and prerequisite**

Monetary supply and demand. The role of the financial system at the macro-level; studying monetary policy's goals, tools, policy implementations, and transmission mechanisms in the real economy, emphasizing the role of monetary policy in the business cycle, which targets inflation. The role of the Central Bank. The relationship between monetary and fiscal policies. The role of monetary policy in the open economy by considering the link between foreign exchange rate policy and changes in Macroeconomics and the financial environment.

Prerequisite: EE312 (intermediate macroeconomics)

3. **Course objectives:**

- Understanding the existence of monetary system and the use of intrinsic valueless money (fiat money)
- Understanding the role of money over the long-run and short-run.
- Understanding the way economists conceptualize their thoughts, and explain the basic stylized facts of monetary system
- Understanding the key principle of central banking and monetary policy
- Understanding on the origin and mechanic of financial crisis: policy responses, crisis mitigations and reforms.

4. Course overview:

This course is an advanced level course in monetary economics field, and can be divided into three parts. In the first part, we discuss about the basic prototype monetary models that are founded on the first principle, i.e. optimizing-agent model. Built upon your previous training in EE312, we develop a general equilibrium model that justifies the existence and the use of the fiat money. We ask if money is essential under what circumstances, and use the model developed to answer a key important question related to the optimal monetary policy, i.e. what is the optimal inflation rate?

In the second part, we shift our focus to the short-run economic fluctuations, i.e. the up-and-down of real GDP relative to the long-term trend. While several competing theories have been out there as the alternative explanations for the sources of business cycles, our course focuses on the role of money in the fluctuations. We begin with reviewing some monetary stylized facts over the short-run, and discuss two competing theories that explain the reason that money can generate the real-effect to the economy.

The last part takes all the stock of our knowledge from the first two parts, and introduces the concept of the theory of monetary policy and central banking. What are the principles of monetary policy? Should policy be set upon certain rule, or be allowed to set upon the discretion of policy makers? We review some conceptual frameworks for monetary policy conduct, both from the theoretical and practical perspective. In the very last section of this part, we discuss the role of monetary policy during the financial crisis, and understand the similarities and differences between conventional and unconventional monetary policy.

This course requires an extensive use of mathematics in the presentation. Students are advised to keep up with the lecture, and raise the question when you have troubles following the materials. While class attendance is not required, I find it is incredible for student to catch up all the knowledge without their class attendances. Students are also encouraged to keep up-to-date with the news in financial world so that some other issues might be discussed upon your initiation during the lecture.

5. Course materials and readings

All materials will be posted on BE moodle; passcode will be given in class. Following are some of the suggestive list of readings that you might consult.

(1) Bruce Champ and Scott Freeman (CF): *Modeling monetary economics*.
(2) Deopke, Lerhneart and Sallager (DLS) "*Macroeconomics*" manuscript.
(3) Bofinger Peter (Bofinger) "Monetary policy: Goals, instruments and implementations"
(4) Mishkin Frederic (Mishkin) "Economic of money and banking"

(5) Supplement readings as indicated under each topic

6. **Course evaluation**
   - Quiz: 10 points
   - Homework: 10 points
   - Midterm: 35 points
   - Final exam: 45 points

Part I: Monetary theory and Inflation

Topic 1: Introduction / GE in macroeconomics (4 lectures)

- Stylized facts of monetary economy and where we are headed
- Micro-foundation for macroeconomics
  - Optimality in economics behavior (DLS Ch.2, Williamson Ch.4)
  - Intertemporal allocation (DLS Ch.3, Williamson Ch.10-11)
  - Equilibrium and Welfare (DLS Ch.5)

Reading: Deopke, Lerhneart and Sallagent (DLS) " *Macroeconomics*" manuscript.

Topic 2: An OLG monetary modeling (6 lectures)

- A simple model of money (CF Ch.1: 2 lectures)
- Money, inflation and government finance (CF Ch.3: 2 lectures)
- Capital and money in General equilibrium (CF Ch.6: 2 lecture)

Reading: Bruce Champ and Scott Freeman (CF): *Modeling monetary economics*. Cambridge university press

Part II: Monetary business cycles and Modeling the real effect of money

Topic 3: Modeling the real effect of money I: New Classical perspective (5 lectures)

- Theory of business cycles: overview
- Does money affect output? Some stylized facts
- Can monetary shocks cause business cycles under flexible price environment?
- Rational expectation and the implications for monetary policy conduct

***Readings*:** DLS Ch. 19.;

- Robert Lucas "Some International Evidence on Output-Inflation Tradeoffs," The American Economic Review, vol. 63 (June 1973), pp. 326–34.
- Mike Woodford "Revolution of macroeconomics in the twentieth-century" Downloadable from : http://www.columbia.edu/~mw2230/macro20C.pdf

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Part II: Monetary business cycles and Modeling the real effect of money (contd.)

Topic 4: Modeling the real effect of money II: New Keynesian perspective and credit view (5 lectures)

- The case *against* New Classical interpretation
- Imperfect competition and Nominal rigidities
- Some micro-evidences for price/wage stickiness
- Modeling price/wage stickiness
- Credit market imperfections and Agency cost
- Financial accelerator effect

***Readings*:**

- Mankiw Gregory (1985) "Small menu cost and large business cycles" QJE
- Taylor, John B., 1999. "Staggered price and wage setting in macroeconomics," Handbook of Macroeconomics, edition 1, volume 1, chapter 15, pages 1009-1050 Elsevier.
- Rotemberg, Julio J. 1982. "Sticky Prices in the United States." Journal of Political Economy, Vol. 90, p. 1187-1211
- ** David Romer (2012) "Short-run fluctuations" Working paper
- ** Bernanke, Ben, and Alan Blinder. 1988. "Credit, Money, and Aggregate Demand." American Economic Review 78: 435-39.
- Bernanke, Ben, and Mark Gertler. 1989. "Agency Costs, Net Worth and Business Fluctuations." American Economic Review 79: 14-31.
- ** Gertler, Mark. 1988. "Financial Structure and Aggregate Activity: An Overview." Journal of Money, Credit, and Banking 20: 559-588.

Part III: Theory of monetary policy and practical monetary policy

Topic 5: Theory of monetary policy (4 lectures)

- An introduction to New Keynesian Model of monetary policy analysis
- Monetary policy optimization: analytical framework
- Rule VS discretion: Inflation biased problem and Institutional design for central banking.

***Readings*:** DLS Ch. 19

- ** Romer, David, "Keynesian Macroeconomics Without the LM Curve," Journal of Economic Perspectives 14(2): 149-169 (Spring 2000).
- ** Pierpalo Benigno (2009) "New-Keynesian Economics: An AD-AS view, NBER working paper
- Robert King (2000) "The New IS-LM Model: Language, Logic, and Limits" FED Richmond research
- ** Walsh, Carl E. (2002) "Teaching Inflation Targeting: An Analysis for Intermediate Macro". Journal of Economic Education 33 (4), Fall 2002, 333-347.
- ** Aoki (2015) "Relative price and inflation stabilization" Japanese Economic Review
- ** Wendy Carlin and David Soskice (2005) "The 3-Equation New Keynesian Model — a Graphical Exposition"
- ** Friedman, Milton, "The Role of Monetary Policy," American Economic Review 58: 1-17 (1968).
- Sargent and Wallace (1975)" Rational expectations, the optimal monetary instrument, and the optimal money supply rule" JPE
- Finn E. Kydland; Edward C. Prescott *(June 1977).* "Rules Rather than Discretion: The Inconsistency of Optimal Plans" *(PDF).* Journal of Political Economy. ***85*** *(3)*
- Barro, Robert J.; Gordon, David B. (1983). "A Positive Theory of Monetary Policy in a Natural Rate Model". Journal of Political Economy.
- Klein, Paul (2009). "Time consistency of monetary and fiscal policy". The New Palgrave Dictionary of Economics
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<u>Topic 6:</u> Practical monetary policies and some current issues (6 lectures)

- Central banking and the conduct of monetary policy
- Monetary policy regimes: Goals, Target, and instruments
- Inflation targeting framework
- Monetary transmission mechanisms
- Global financial crisis
- Liquidity trap and Unconventional monetary policies

<u>Readings</u>: Mishkin Ch.14-18, Ch. 26

- Taylor, John B., "Discretion Versus Policy Rules in Practice," Carnegie-Rochester Conference Series on Public Policy 39: 195-214 (1993).
- Woodford, Michael, "The Case for Forecast Targeting as a Monetary Policy Strategy," Journal of Economic Perspectives, Fall 2007, pp. 3-24.
- ** Bernanke, Ben S. "The Logic of monetary policy" FRB speech
- ** Bernanke, Ben S. "Instrument rule vs Targeting rule" FRB speech
- ** Mishkin (2003) "Monetary policy strategy" MIT press

======== May 29th 2017; 13.30 – 16.30 ========