# B.E. International Program

Faculty of Economics, Thammasat University

## Course Syllabus

### EE432 Monetary Theory and Policy

Semester 1/2018 (August 14 – December 3, 2018)

| | |
|---|---|
| **Number of credits:** | 3 credits (3-0-6) |
| **Lecture Time:** | Tuesday and Thursday, 12.30 – 14.00 hours |
| **Lecture Venue:** | Room 302, Faculty of Economics |
| **Instructor:** | Kittichai Saelee, Ph.D. |
| | Office: Room 516, 5th Floor, Faculty of Economics |
| | Office Hours: By appointment only. |
| | Email: kittichai_lee@econ.tu.ac.th |

*Students are required to contact me by the Gmail account provided by the faculty of economics. To acquire and activate your account, please log-on to http://www.checkmail.econ.tu.ac.th/

## Course Descriptions

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

## Course Objectives

Students should be able to understand the complexity of monetary policy conduct, and appreciate the uncertain impacts and spillovers that monetary implementations may have on the real economy and financial markets

## Teaching Materials and Resources

No single text covers everything that we will discuss in this class. Our presentation closely follows the organizational structure outlined in *Mishkin (2016).* Students might use this book as a main reference.

*Mishkin, F. S. (2016). The Economics of Money, Banking, and Financial Markets. 11th edition, England*

Mishkin offers general survey on each issue; however, many in-depth details are not included. Students are advised to read some other textbooks for more specific detail in each part. Theoretical discussions on concepts of monetary economics and monetary policy will be drawn from *Whelan (2017).*

*Karl Whelan "Advanced undergraduate macroeconomics" Manuscript (electronically-accessibe via BE moodle)*

An excellent resource on monetary policy operation is Bindeille (2014). This encyclopedic provides an extensive survey on conceptual framework and practical experience of modern approach to monetary policy implementation. (This book is suitable for advanced students.)

*Ulrich Bindseile (2014) "Monetary policy operations and financial system" Oxford University press*

For the survey on financial crisis, a comprehensive treatment on this issue can be found in

*Reinhard and Rogofft (2011) "This time is different: Eight centuries of financial folly" Princeton university press.*

All over along the discussion, instructor will refer to other specific readings, such as book, article and referred journal. Please refer to the reading lists indicated in each part of the topic.

## Evaluation Methods

| | | |
|---|---|---|
| Individual assignment/Quiz | 10% | (Drop the lowest one out) |
| Group Project: | 10% | (10-page essay + presentation) |
| Mid-term Examination: | 40% | **(Oct 4, 2018; 12.00-14.00 hrs.)** |
| Final Examination: | 40% | **(Dec 18, 2018: 13.30-16.30 hrs.)** |

## Important dates:

| | |
|---|---|
| ♦ First semester begins | August 14, 2018 |
| ♦ Period of withdrawal without "W" | August 14 - 27, 2018 |
| ♦ **Mid-Term Examination Period** | **October 1 - 6, 2018** |
| **(Thursday, October 4, 2018, 12.00 - 14.00 hrs.)** | |
| ♦ Course withdrawal with "W" | October 1 - 6, 2018 |
| ♦ Chulalongkorn Memorial Day | October 23, 2018 |
| ♦ Last day of class | December 3, 2018 |
| ♦ **Final Examination Period** | **December 4 – 20, 2018** |
| **(Tuesday, December 18, 2018, 13.30 – 16.30 hrs.)** | |

## Lecture organizations

This course is organized and divided into *5 modules*, each of which is closely interlinked. Our midterm exam covers the first two modules; the remaining covers the final exam. The first module gives an overview to the *central banking*. We discuss about the key mandates of central bank and central banking of major countries around the world. Our main emphasis is to focus on monetary policy process, which is one of the *core mandates of central bank*. The issue discussed therein ranges from tools of monetary policy, how central bank controls money supply and interest, the interlink between monetary policy and exchange rate, and lastly the design of monetary policy strategy.

The second module turns to the theoretical side where we develop framework for monetary policy model, i.e. macroeconomic model usable for policy analysis. We discuss the traditional view of monetary policy model (IS-LM-AD-AS), point out its drawback, and introduce a *newer version of monetary policy so called (IS-MP-PC model).*

We equip students with modern knowledge, and investigate the new framework in which model can be applied to understand some current issues regarding to the *zero lower bound constrained* and the *effect of unconventional monetary policy.*

The third module looks into the practical issues of monetary policy. Built upon the model and framework laid in the second module, we treat monetary policy behavior endogenously. We ask what constitutes to be the key principle and property of optimal monetary policy. We discuss about the modern approach to optimal monetary policy problem called monetary policy optimization, and study the practical version of monetary policy conduct called "flexible inflation targeting, a framework for which the designing strategy has been influentially guided by the theory of monetary policy. We look into both theoretical and empirical aspects of monetary policy transmission mechanism.

The fourth module provides some in-depth survey on global financial crisis. We look into the perspective on different types of crisis, emphasizing at major developments that occurred during the crisis, and ask about the lesson that one can take away from the crisis. We rely on cross-country comparison approach, and draw for some conclusions over the nature of economic structure that sows the seed of financial crisis.

The last module discusses about recent issues and debates in monetary and financial stability. We look into the financial stability reform undertaken after the GFC, and the structural constraint on achieving monetary stability carried out by monetary policy.

Below gives the lecture outline in details.[1]

[1] Instructor reserves the right to adjust the lecture outline and lecture schedule if the instructor sees fit to.

**Lecture outline:**

| Topics | Reading |
|---|---|
| ***Module 1: Central banking and Monetary policy conduct (13.5 hrs.)*** | |
| *1. Money, financial system and central banking (3 hrs)*<br>1.1) Evolving monetary and financial system<br>1.2) History and the origin of central bank<br>1.3) Evolution of central banking: mandates and organizational structure<br>1.4) Central banking from global perspective | *Mishkin Chapter 3 and Chapter 14* |
| *2. Central bank balance sheet and Money supply process (1.5 hrs.)*<br>2.1) Measurement concepts of money supply<br>2.2) Commercial banks' balance sheet and deposit creation<br>2.3) Money supply process<br>2.4) Central bank's balance sheet, monetary base and money multiplier.<br>**Assignment 1** | *Mishkin Chapter 15* |
| 3. *Tools of monetary policy (3 hrs.)*<br>3.1) Monetary policy implementation: setting short-term interest rate<br>3.2) Pre-crisis operating framework for monetary policy (Normal times): *conventional tools*<br>o The market for reserves and Fed-fund rate.<br>o How can central bank control the short-term interest rate?<br>3.3) Operating framework for monetary policy during the crisis and post-crisis: *unconventional tools and quantitative easing.*<br>3.4) Operating framework in other major central banks<br>3.5) Operating framework for monetary policy in Thailand<br>**Assignment 2 / Quiz 1: Short answer** | **Mishkin Chapter 16*<br><br>Bank of England "Monetary policy operations" Handbook of central bank studies.<br><br>Bank of England "Understanding central bank balance sheet" Handbook of central bank studies.<br><br>*How can the central bank implement negative interest rate? BIS quarterly review.* |
| 4. *The conducts of monetary policy: monetary policy strategy (3 hrs.)*<br>4.1) Goals (or objectives) of monetary policy<br>4.2) Notation of targeting variables<br>4.3) Rationale for strategic design and monetary policy targeting<br>4.4) Alternative monetary policy strategies<br>o Monetary targeting<br>o Inflation targeting<br>4.5) Tactical approach: Taylor's rule<br>**Assignment 3 / Quiz 2: Multiple choices** | * Mishkin Chapter 17<br>* Friedman (1968) " The role of monetary policy" AER<br>* Mishkin (1998), "Monetary policy strategy" MIT press<br><br>Friedman, Milton (2006), "Tradeoffs in Monetary Policy," Paper prepared for David Laidler's Festschrift. |

| Topics | Reading |
|---|---|
| 5. *International finance and monetary policy (3 hrs)*<br>5.1) Foreign exchange rate market<br>5.2) Theory of exchange rate determination: long-run v.s. short-run<br>5.3) International monetary system<br>5.4) Central bank intervention and money supply<br>5.5) Exchange rate regime in the international financial system<br>5.6) Open-economy monetary policy strategy: exchange rate targeting.<br><br>**Assignment 4** | **Mishkin Chapter 18 - 19* |

| Topics | Reading |
|---|---|
| *Module 2: Monetary theory and framework for monetary policy analysis (7.5 hrs.)* | |
| 6. *Monetary policy and aggregate economy: Basic framework (3 hrs.)*<br>6.1) Evidences on money, output and inflation<br>6.2) Traditional framework for monetary policy analysis: IS-LM-AD-AS view<br>o Short-run v.s. long-run equilibrium<br>o Medium-term adjustment theory<br>6.3) Modern framework for monetary policy analysis: IS-PC-MP<br>o Monetary policy and aggregate spending: IS curve<br>o Inflation and real economic activities: Phillips curve<br>o Monetary policy behavior: Taylor's rule<br>6.4) Equilibrium and the effects of shock in the IS-MP-PC model: applications and case studies<br>6.5) Monetary policy stabilization and the Taylor's principle: applications and some empirical evidences<br><br>**Assignment 5 / Quiz 3 Short answer** | Mankiw Ch. 21 - 23<br>Blanchard (2017)<br>Whelan (2017) |
| 7. *Monetary policy and aggregate economy: Post-crisis* framework (4.5 hrs.)<br>7.1) Credit frictions and financial amplifications<br>7.2) Negative shocks and the zero-lower bound constraint<br>7.3) Implications of zero-lower bound for macroeconomy<br>7.4) How to escaping from the liquidity trap<br>o Fiscal policy<br>o Effects of unconventional monetary policy<br>o Forward guidance | *Mishkin: Chapter 24<br><br>Svensson Lars (2013), "Escaping from a liquidity trap and deflation: The foolproof way and others" Journal of Economics Perspectives.<br><br>Instructor's note |
| *Midterm exam*<br><br>**(Thursday, October 4, 2018, 12.00 - 14.00 hrs.)** | |

<table>
<tr><th><u>Topics</u></th><th><u>Reading</u></th></tr>
<tr><td colspan="2">Module 3 Theory of optimal monetary policy and practical monetary policy (9 hrs.)</td></tr>
<tr><td>8. Theory of optimal monetary policy (4.5 hours)<br>8.1) Monetary policy optimization problem<br>8.2) Monetary stability and loss function<br>8.3) Guiding principles for optimal monetary policy<br>o Inflation biased and its solution.<br>o How central bank should respond to shock?<br>8.4) Implementing optimal monetary policy: Optimal Taylor's rule</td><td>Mishkin Ch. 24<br><br>Instructor's note</td></tr>
<tr><td>9. Monetary policy under the Inflation targeting (4.5 hours)<br>9.1) Monetary policy targeting revisited<br>9.2) What is wrong with the Taylor's rule?<br>9.3) Implementing optimal monetary policy thorough inflation target<br>9.4) History of the inflation targeting<br>9.5) Practical implementing inflation targeting: forecast-based inflation targeting.<br>9.6) Monetary transmission mechanism<br>9.7) Practical issues:<br>- Measure of inflation: choice of CPI target<br>- Uncertainty<br>- Communication<br><br>Assignment 6 /</td><td>Mishkin, Ch. 25<br>Bank of England "state of the art of inflation targeting"<br>Greenspan, Alan (2004). "Risk and Uncertainty in Monetary Policy," remarks at the Meetings of the American Economic Association,<br>Bernanke, Ben (2003). " 'Constrained Discretion' and Monetary Policy,"<br>Bernanke (2004) "The logic of monetary policy" S<br>Bernanke, Ben (2004). "Central Bank Talk and Monetary Policy," speech before the Japan Society</td></tr>
</table>

| **Topics** | **Reading** |
| --- | --- |
| *Module 4 Survey on financial crisis (6 hrs.)* | |
| 10. Understanding financial crises I: overview (1.5 hrs.)<br>10.1) What is the financial crisis?<br>10.2) Types of financial crisis and economic recessions<br>o Exchange rate crisis<br>o Banking crisis<br>o Sovereign debt crisis<br>10.3) Some stylized facts of the financial crisis: frequency, severity and recovery<br>10.4) Chronological events of major financial crisis over the past eight centuries * | * Reinhard and Rogofft (2011) "This time is different: Eight centuries of financial folly" Princeton university press. |
| 11. Understanding financial crisis II: US Subprime crisis 2008 (3 hrs.)<br>11.1) How did it happen? Developments prior to the GFC 2008<br>11.2) Timeline of major events and Crisis mechanism<br>11.3) Stage of credit crunch and policy responses: unconventional policies | *Mishkin: Chapter 12<br>-Coval, Joshua, Jakub Jurek, and Erik Stafford. 2009. "The Economics of Structured Finance."<br>-Mayer, Christopher, Karen Pence, and Shane M. Sherlund. 2009. "The Rise in Mortgage Defaults."<br>-Cecchetti, Stephen G. 2009. "Crisis and Responses: The Federal Reserve in the Early Stages of the Financial Crisis."<br>-*Brunnermeier, Markus K. 2009. "Deciphering the Liquidity and Credit Crunch 2007-2008."<br>-Shin, Hyun Song. 2009. "Reflections on Northern Rock: The Bank Run That Heralded the Global Financial Crisis."<br>- IMF (2013). "Unconventional monetary policies: Recent experience and prospects." |
| 12. Understanding financial crisis II: Main lessons and key take-away (1.5 hrs.)<br>12.1) Anatomy of crisis: Cross countries comparison<br>12.2) Crisis mechanism:<br>o Domestic collapse<br>o Contagious and policy spillover<br>12.3) Some econometric studies<br>12.4) Key take-always | IMF (2014) "Financial crisis: causes, consequences, and responses" |

<table>
<tr><th><u>Topics</u></th><th><u>Reading</u></th></tr>
<tr><td colspan="2">Module 5 Monetary and financial stability in the aftermaths of GFC (9 hrs.)</td></tr>
<tr><td>13. Financial sector reform in the aftermaths of GFC (3 hrs.)<br>13.1) Historical development of financial regulation<br>13.2) Financial stability and Micro-prudential regulation: Tools and problem<br>13.3) Shortcomings of the micro-prudential approach<br>13.4) Macro-prudential regulation: rationale and tools<br>13.5) Some experiences and assessments</td><td>- Geneva report (2011) “The Fundamental Principles of Financial Regulation” Geneva report<br>- *Kahoua, and Lehar (2017) “Macroprudential policy: A review” Journal of financial stability<br>- BIS (2017) What are the effects of macroprudential policies on macroeconomic performance?<br>- Bernanke, Ben (2010) “Monetary Policy and the Housing Bubble”<br>- Bank of England “Financial stability report”</td></tr>
<tr><td>14. Recent issues in monetary policy (3 hrs.)<br>14.1) Secular change and constraints to monetary policy<br>o Flattening Phillips curve<br>o Lower long-term interest rate<br>o Effect of globalization<br>o Liquidity trap<br>14.2) Monetary policy and financial stability<br>14.3) Unconventional policies tools: going forward</td><td>- IMF (2015) “Monetary policy and financial stability”<br><br>- Hamilton James (2018) A skeptical point of view on the impact of central bank’s balance sheet.</td></tr>
<tr><td colspan="2">Group project presentation (3 hrs.)<br><br><u>Topic 1</u> Mexican Peso and Argentinian Crisis (20 mins)<br>Structure of the two emerging market economies<br>Development prior to Crisis: what went wrong?<br>Timelines of major events and crisis mechanism<br>Policy response and aftermaths<br><u>Topic 2</u> Asian Financial Crisis 1997 (20 mins)<br>Structure of Thai economy before 1997: phase of development<br>Development prior to Crisis in 1997: what went wrong?<br>Timelines of major events and crisis mechanism<br>Policy response and aftermaths<br><u>Topic 3</u> The Euro debt crisis: Portugal, Italy, Greece, Spain (20 mins for each country)<br>What is the Euro? Core framework of Single currency.<br>Country profile/financial structure/Developments leading up to the Euro crisis<br>Crisis mechanism and Policy responses</td></tr>
<tr><td colspan="2">Final exam<br><br>Tuesday, December 18, 2018, 13.30 – 16.30 hrs.</td></tr>
</table>