

Course Structure and Standard Syllabus

Course Topic: Monetary, Exchange Rate, and Capital Account Policies

Course Title: Monetary Policy (MP)

Course overview: This is an overview two-week policy course focusing on monetary policy frameworks, monetary transmission mechanism and the role of monetary policy in macroeconomic stabilization. The course bridges the gap between theory, empirical evidence, and operational experience, by conveying monetary policy decisions in light of existing tradeoffs. The learning progresses from lectures introducing the underlying concepts to hands-on workshops, and relevant case studies used to reinforce participants' understanding. By the end of the course participants will be able to (i) analyze how monetary policy decisions are taken under various regimes to deliver price stability, (ii) identify how these decisions are transmitted to the real economy, and (iii) evaluate how the economy and monetary policy respond to macroeconomic shocks under various monetary policy frameworks.

Topics (Core Units)

1. Introductory Lecture

Part I: Principles and Building Blocks

2. Institutional Frameworks, Goals, and Links with Other Policies
3. Monetary Policy Frameworks
4. Monetary Policy Instruments and Operations
5. Main Concepts and Measurements Used in Monetary Policy Analysis
6. Monetary Policy Transmission Mechanism
7. A Quantitative Framework for Monetary Policy Analysis
8. Role of Forecasting and Policy Analysis System
9. Role of Central Bank Communications

Part II: Frameworks in Practice

10. Monetary Policy in Hard Pegs
11. Monetary Policy in Reserve Money Targeting and Evolving Regimes
12. Monetary Policy in Inflation Forecast Targeting Regime

Part III: Constraints and Challenges

13. Monetary Policy in Managed Exchange Rate Regimes
14. Unconventional Monetary Policies
15. Monetary Policy, Financial Stability and Macroprudential Policy

Topics (Auxiliary units)

- A1. Monetary Policy in Fund Supported Programs

- A2. Monetary Policy and Inequality
- A3. Central Bank Digital Currencies

Target Audience

The course is targeted to (junior to mid-level) officials mostly from emerging markets and low-income countries interested in understanding and analyzing the implementation of monetary policy and its interaction with rest of the economy.

Qualifications

Participants should have an advanced degree in economics or equivalent experience and be comfortable using Excel and Excel-based applications.

Course descriptions

This course, presented by the IMF Institute, gives a comprehensive overview of monetary policy regimes, monetary transmission mechanisms, and the role of monetary policy in macroeconomic stabilization. The course bridges the gap between theory, empirical evidence, and operational experience by illustrating the optimization problems and tradeoffs involved in monetary policy decisions. The learning process moves from lectures introducing the basic concepts to hands-on workshops. Case studies are used to reinforce participant understanding and to help them compare and assess a variety of experiences.

Course Objectives

Upon completion of this course, participants should be able to: (i) Analyze how monetary policy decisions are made under various regimes to deliver price stability; (ii) Identify how these decisions are transmitted to the real economy; and (iii) Evaluate how the economy and monetary policy respond to macroeconomic shocks under various monetary policy frameworks, demonstrated through a group presentation to their peers. Central bank practitioners should also be able to: (i) Design a sound monetary policy framework; and (ii) Prescribe policies consistent with the framework chosen.

Course Progression

This is an overview policy course. It is recommended to attend this course after a few general macroeconomic courses, like Financial Programming and Policies (FPP) and Macroeconomic Diagnostic (MDS), or after using existing online modules for these courses, where available. For technical staff from central banks it is advisable to take this course ahead of the modeling courses, Model-Based Monetary Policy Analysis and Forecasting (MPAF) and Monetary and Fiscal Policy Analysis with DSGE Models. For monetary policy practitioners it is strongly recommended to attend the Exchange Rate Policy (ERP) and Managing Capital Flows (MCF) courses in the same two year period with this course.

Performance Evaluation

Two multiple-choice tests will be given, one at the beginning and one at the end of the course. Performance in these tests will be recorded in participants' evaluation.

Customization

The course is designed to offer basic material for all regions, including a different case study for each geographical region for the main workshops (model based) that will serve for the preparations of the final presentations. However, in certain regions auxiliary units may be added, replacing other lectures such as money targeting. Some workshops may be extended beyond the level indicated, depending on regional interests and level of interaction.

OUTLINE MONETARY POLICY COURSE

UNIT 1: INTRODUCTORY LECTURE

The role of this lecture is to motivate why monetary policy is important to study, its role in macroeconomic stabilization, and the tradeoffs involved in policy decisions, especially if financial and exchange rate stability are important for the central bank. The lecture also gives a brief overview of the course, setting the stage of specific issues to be discussed in the subsequent three parts of the course (building blocks, monetary policy frameworks in practice and constraints and challenges).

Lecture (1.5h) - L01 Introductory Lecture Monetary Policy course

- Role of monetary policy in macroeconomic stabilization
- Lessons learned in monetary policy and challenges remaining
- Course outline: motivates role of building blocks of monetary policy, frameworks used in practice, and motivates why and how these issues are taught in the course

Readings

Svensson Lars E. O. "What Have Economists Learned about Monetary Policy over the past 50 Years?," in Herrman, Heinz, ed., *Monetary Policy Over Fifty Years: Experiences and Lessons*, Routledge, 2009. Available via internet:

<http://www.riksbank.se/en/Press-and-published/Press-Releases/2007/Svensson-What-have-economists-learned-about-monetary-policy-over-the-past-50-years/>

IMF, 2015, "Evolving Monetary Policy Frameworks in Low-Income and Other Developing Countries", Board Paper 15/172

Jacker, Jeffrey, 2015, "What Monetary Policy Can and Can't Do," Available via internet:

https://www.richmondfed.org/press_room/speeches/president_jeff_lacker/2015/lacker_speech_20151112

UNIT 2: INSTITUTIONAL FRAMEWORK, GOALS AND LINKS WITH OTHER POLICIES

The role of this unit is to lay the ground of why we need money and monetary policy, and what makes a monetary policy framework effective. This brings together underlying insights from theory, empirical evidence and practice, and emphasizes the institutional and operational items needed for the frameworks' effectiveness. As such, the lecture covers why monetary policy can affect real economy and prices, and how to avoid time inconsistent policy decisions that ultimately lead to inflationary biases. The lecture highlights why price stability should be the overarching goal of monetary policy, and how central banks could implement it, especially when it has other goals, by coordinating with other policies to minimize the policy tradeoffs it faces when other goals are present.

Lecture (1.5h) - L02 Institutional Framework Goals and Links to Other Policies

- Money and the need for monetary policy (including latest developments)
- Role of price stability, and policy tradeoffs arising from multiple goals
- The role of institutional arrangements: central bank autonomy, accountability, governance, and transparency
- Monetary policy interactions with exchange rate regime, and other policies (fiscal, exchange rate, financial)

Readings

Tobias Adrian et al, 2018, Advancing the Frontiers of Monetary Policy, <https://www.bookstore.imf.org/books/title/advancing-the-frontiers-of-monetary-policy>

Luis Jácome and Tommaso Mancini-Griffoli, 2014, "A Broader Mandate," *Finance & Development*, June 2014, Vol. 51, No. 2. Available via: <http://www.imf.org/external/pubs/ft/fandd/2014/06/jacome.htm>

Cukierman, Alex, 2013, "Monetary policy and institutions before, during, and after the global financial crisis," *Journal of Financial Stability* 9, 373-384

Bernanke, Ben S., 2006, "The Benefits of Price Stability". Available via: <http://www.federalreserve.gov/newsevents/speech/bernanke20060224a.htm>

UNIT 3: MONETARY POLICY FRAMEWORKS

This unit explains what is a monetary policy framework, and presents how alternative frameworks work in practice, their pros and cons, and how to strengthen them.

Lecture (1.5h) - L03 Monetary Policy Frameworks

As participants come from various exchange rate regimes and ways of implementing monetary policy, the lecture starts by providing the taxonomy of alternative monetary policy frameworks and their interaction with alternative exchange rate regimes. The lecture presents the policy trilemma and briefly reviews pros and cons and how main regimes operate in practice today: hard and soft pegs (including currency unions), managed exchanged rate regimes, monetary targeting and evolving regimes, and inflation forecast targeting. For equal balance eclectic frameworks are also briefly presented as they tend to be implemented also by some countries; price level and nominal income targeting are also presented briefly as they have been recommended.

- Monetary policy frameworks: role of strategy (goals, institutions) and tactics (instruments, operating and intermediate targets), nominal anchor
- Evolution of monetary policy frameworks and interaction with exchange rate regimes
- How to choose and strengthen monetary policy frameworks

Readings

IMF, 2015, “Evolving Monetary Policy Frameworks in Low-Income and Other Developing Countries” <http://www.imf.org/external/np/pp/eng/2015/102315.pdf>

IMF, 2014, “Annual Report on Exchange Arrangements and Exchange Restrictions”, pp 1-15 <http://www.imf.org/external/pubs/nft/2014/areaers/ar2014.pdf>

Jeffrey Frankel, 2011, “Monetary Policy in Emerging Markets: A Survey” in *Handbook of Monetary Economics*, edited by Benjamin Friedman and Michael Woodford, also NBER Working Paper <http://www.nber.org/papers/w16125.pdf>

UNIT 4: MONETARY POLICY INSTRUMENTS AND OPERATIONS

The role of this unit is to show how design and use of operational framework has implications on how well monetary framework functions and how the monetary transmission works, or may be impaired. The role of this practical unit is to understand how to achieve desired policy actions by using operational targets and instruments, and consists of a lecture and a hands-on workshop.

Lecture (1.5h) - L04 Monetary Policy Instruments and Operations

The lecture discusses how intended changes in monetary policy stance are implemented. The lecture introduces operational targets, instruments, and also discusses the related market operations implemented either in money or foreign exchange markets, and their consequences for balance sheets of the central bank and the consolidated banking sector. The choice of instruments and consistency of their use is also discussed. The lecture also explains the basics of liquidity forecasting, and the role of managing bank reserves and reserves remuneration in an effective conduct of monetary policy.

- What is an ideal operational framework, and how frameworks work in practice
- How monetary policy is implemented through operations to affect the level of bank reserves, and in term the amount of savings intermediated
- Instrument choice and consistency among multiple instruments

Workshop (1.5h)

Following the lecture, the workshop presents an exercise on policy implementation. It emphasizes the need for coordination between money market, foreign exchange operations as well as government operations. The role of the workshop is to illustrate the role of the operational framework in helping to align market policy conditions to policy stance.

- What does monetary policy tightening and how is it implemented?
- How to align operations and instruments with the desired policy stance
- How to improve existing framework: moving from targeting quantities to short-term policy rates

Readings

Benjamin M. Friedman, and Kenneth N. Kuttner, 2010, "Implementation of Monetary Policy: How Do Central Banks Set Interest Rates?" " NBER WP
<http://www.nber.org/papers/w16165>

Disyatat, Piti, 2008, "*Monetary Policy Implementation: Misconceptions and Their Consequences*," BIS Working Paper, No. 269 (Basel: Bank for International Settlements). Available via: www.bis.org/publ/work269.pdf

UNIT 5: MAIN CONCEPTS AND MEASUREMENTS USED IN MONETARY POLICY ANALYSIS

The role of this unit is to show why it is important for the central banks to understand the relation between business cycle and inflation. It also shows how to assess the stance of the

economy and of policy, and what are the effects of policy decisions on the economy. In principal, the unit is focusing on showing how to understand (i) if output is on the balanced growth path (deviations from output at full employment without inflationary pressures), (ii) if inflationary pressures are temporary or permanent, and if information from a monthly increase in inflation is a noise or a more important development, and (iii) when policy is being tight or loose: natural level of interest rate, other benchmark measures. The unit consists of a lecture and hands-on workshop.

Lecture (1.5h) - L05 Main Concepts and Measurement used in Monetary Policy

The lecture examines the relation among inflation, business cycle and long-run trends in key macro variables, and highlights key concepts to be considered in the conduct of monetary policy. It explains why the natural levels of some variables are crucial components of a proper analysis and conduct of monetary policy, including their role in an open economy. The lecture also presents another key concept in conducting monetary policy: core inflation.

- Inflation, the business cycle and natural levels (Phillips curve)
- Policy tradeoffs
- How to measure core inflation and natural or equilibrium levels of output/unemployment, interest rate, and the real exchange rate

Workshop (1.5h)

- Excel exercise to measure and analyze core inflation
- Excel exercise to measure trend GDP, the natural level of the interest rate and the NAIRU]

Readings

Svensson, L, 2009, “What have economists learned about monetary policy over the past 50 years? Speech at the Deutsche Bundesbank Conference on “Monetary Policy over Fifty Years”. <https://larseosvensson.se/practical-monetary-policy/#Buba709>

Galí J., 2009, “The New Keynesian Approach to Monetary Policy Analysis: Lessons and New Directions” ? www.crei.cat/wp-content/uploads/users/pages/jg09cfs.pdf

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Schmidt-Hebbel, K. and C. Walsh, 2009 “Monetary policy and key unobservables: evidence from large industrial countries and selected inflation targeting countries.” Central Bank of Chile working paper 527 <https://ideas.repec.org/p/chb/bcchwp/527.html>

UNIT 6: MONETARY POLICY TRANSMISSION MECHANISM

The role of this unit is to continue to understand what are the effects of policy decisions on the economy: how these decisions could be transmitted to the aggregate demand prices, through multiple possible channels. It shows the intuition behind those channels, as well as some theoretical and practical insights, as well as some empirical evidence. The standard lecture is followed by a case study (power Point) presented by the instructor focusing on how the MTM works or how it may be impaired in developing and low income countries.

Lecture (1.5h) - L06 Monetary Policy Transmission Mechanism

This lecture explains why and how a change in monetary policy instruments can generate a liquidity effect, and describes how these movements are transmitted to the real economy. The lecture illustrates the traditional channels: (a) interest rate, (b) exchange rate, (c) asset prices, (d) expectations channel (and how central banks influence them through communication), as well as bank credit channel—(e) bank balance sheet and (f) bank lending channel. To gain further insights on how channels operate in various frameworks, see workshops of units 10-13). Furthermore, the risk taking channel (g) is discussed in lecture 15 (where monetary policy and financial stability are discussed in more detail).

- Importance of monetary policy transmission channels and of their understanding
- How policy instruments are managed by the authorities in an open economy and how they can have real effects
- How policy is transmitted to the economy, and impediments in emerging markets
- Role of pass through and terms structure in the transmission

Case studies presented by instructor (1.5h)

This presentation focusses on illustrating the institutional and operational setup needed for an effective monetary policy transmission mechanism, and how and when it is not well designed it impairs the transmission mechanism. The presentation shows how monetary transmission mechanism operates in the presence of shallow, illiquid and less integrated financial markets, colluded banking systems, and less flexible exchange rates, through country examples. It highlights the following disconnects of the policy rate with

- long term rates
- interbank money market
- bank lending rates

Readings

BIS, Monetary and Economic Department, 2008, “Transmission mechanisms for monetary policy in emerging market economies” Working Paper 35

Ireland, P., 2005, “The Monetary Transmission Mechanism” Federal Reserve Bank of Boston, WP 06-1

Bernanke, B. and M. Gertler, 1995, “Inside the Black Box: the credit channel of monetary policy transmission.” *Journal of Economic Perspectives* 9(4): 27-48

UNIT 7: A QUANTITATIVE FRAMEWORK FOR MONETARY POLICY ANALYSIS

Lecture (1.5h) - L07 Quantitative Framework for Monetary Policy Analysis

The role of this lecture is to show how monetary policy analysis could be undertaken in a systematic coherent and consistent way. A small New-Keynesian model is introduced to provide the intuition and specification of the main equations: aggregate demand, Phillips curve, and several variants of monetary policy rules (mostly different variants of the policy/Taylor rules, with or without a role for monetary aggregates and/or of the exchange rate). The model will be used in the background of the hands-on workshops for units 10-13, to illustrate how an economy responds to macroeconomic shocks under different monetary policy frameworks in a small open economy. As the interface of this workshops is user friendly, consisting of a drop down menu of policy rules and shocks participants are not expected to have a modeling background, nor to understand the theoretical derivations, nor the empirical basis for these models. The role of the lecture, and of those workshops will to highlight:

- Role of models in doing systematic monetary policy analysis
- Monetary policy transmission in this simple structural model under various policy rules
- How to interpreting results in the subsequent workshops: what do you need to do, and how the results would look like

Readings

Berg, Andrew, Philippe D. Karam, and Douglas Laxton, 2006, “Practical Model-Based Monetary Policy Analysis—A How-To Guide,” IMF Working Paper 06/81 (Washington: International Monetary Fund). Available via:

<http://www.imf.org/external/pubs/ft/wp/2006/wp0681.pdf>

Beneš, Jaromír, Jaromír Hurník, and David Vávra, 2008, “Exchange Rate Management and Inflation Targeting: Modeling the Exchange Rate in Reduced-Form New Keynesian

Models,” *Czech Journal of Economics and Finance*, Vol. 3–4. Available via:
http://journal.fsv.cuni.cz/storage/1128_str_166_194--benes-hurnik-vavra.pdf

Andrle, M., A. Berg, E. Berkes, R. A. Morales, R. Portillo, and J. Vlcek, 2013, “Money Targeting in a Modern Forecasting and Policy System: An Application to Kenya,” IMF Working Paper 13/239 (Washington: International Monetary Fund)

UNIT 8: ROLE OF FORECASTING AND POLICY ANALYSIS SYSTEM

The role of this unit is to emphasize the importance of a forward looking monetary policy strategy. It shows how the central bank is organized, and what and how process takes place, to deliver a good forecasting and policy analysis system. The lecture emphasizes how the system is not a model, and how a coherent systematic way of forecasting and policy analysis could be undertaken in the absence of a model.

Lecture (1.5h) - L08 Forecasting and Policy Analysis System

- The importance of forward looking monetary policy (medium-term inflation targets, the role of the inflation forecast as the intermediate target, etc)
- Organization of the forecast
- The role of the reporting; the forecasting and policy analysis system (fpas)

Readings

Doug Laxton, Forecasting and Policy Analysis System,
<http://www.douglaslaxton.org/fpas.html>

UNIT 9: ROLE OF CENTRAL BANK COMMUNICATIONS

The role of this unit is to introduce the role of central bank’s communications in enhancing the effectiveness of monetary policy, guiding expectations and enhancing central banks’ credibility and transparency. It presents the role of clear and consistent communications in a forward looking monetary policy strategy, although it does not limit only to it). The lecture presents what and how to communicate as well, and the role of forward guidance and of communications in general in the private agents’ expectations formation.

Lecture (1.5h) - L09 Role of Central bank Communications

Central Bank Communication: Why communicate? What, and How?

- Key principles of effective central bank communication, including or forward guidance
- Case studies

Readings

Kang, Youngjoo Kang, Ayhan, Koc and others, 2013, “Central Bank Communication Policy, A Comparative Study,” April, The Federal Reserve Bank of New York.

http://new.sipa.columbia.edu/sites/default/files/AY13_FederalReserveBank_FinalReport.pdf

Njuguna Ndung’u, 2014, “Monetary Policy Communications Strategies: Kenya’s Experience” Governor of the Central bank of Kenya, https://www.bou.or.ug/bou/bou-downloads/speeches/BoU_IMF/2014/All/Monetary-Policy-Communiton-Strategy-in-Kenya.pdf

Blinder, Alan S., Michael Ehrmann, Marcel Fratzscher, Jakob de Haan, and David-Jan Jansen, 2008, “What we know and what we would like to know about central bank communication”. <http://www.voxeu.org/article/central-bank-communication>

UNIT 10: MONETARY POLICY IN HARD PEGS

This unit presents the theoretical underpinnings, the importance of, and the implementation of monetary policy using a hard exchange rate anchor. Participants will learn why countries choose to give up their domestic currency (or independent monetary policy), when such a regime works best, and how monetary authorities will implement it operationally. The role of this unit is to convey the tradeoffs appearing when domestic policies are not aligned with the main policy goal, particularly under large shocks. The unit comprises from a lecture, a workshop and case studies presented by instructor. Specific interactive activities are interspersed throughout the case studies presentation to make sure learning comprehension, and retention occurs at the highest level. This enhances the creation of new material, in the presentation made by participants at the end of the course, based on the issues discussed in these practical units (10-13).

Lecture (1.5h) - L10 Monetary Policy in Hard Pegs

- Why countries fix their exchange rate, pros and cons for a fixed exchange rate system and when fixed exchange rate regimes and currencies work best
- How monetary policy operates in hard pegs (full dollarization, currency board, currency union) and soft pegs (institutions, operational framework, etc)
- Monetary Policy in a currency union: one instrument; asymmetric transmission of shocks

Workshop (1.5h)

The workshop discusses the economy’s response to various macroeconomic shocks under the fixed exchange rate. We identify and discuss shocks critical for macroeconomic volatility when the exchange rate is fixed. Responses and forecast of main variables implied by a small structural (New Keynesian) underlying theoretical model are used for comparison with practical experience brought by case studies. The shocks, framework, and policy responses

are set in a user friendly manner (from a drop down menu). In this case the forecast is based on a model fit for Latvia, and discussing Latvia's 2008 policy options: internal devaluation (adjusting prices and wages accompanied by a large fiscal adjustment) or giving up the peg.

- The response of the economy to the following type of shocks: external demand, world commodity prices, domestic demand, and risk premium
- What are the critical shocks for macroeconomic volatility under the fixed exchange rate
- The importance of flexibility in goods and especially labor markets under the fixed exchange rate
- Model fitted for Latvia data to illustrate how a forecast is generated around the time of the global financial crisis to assess effects of policy decisions on the economy—of not abandoning the peg, and the required internal devaluation in return vs a hypothetical nominal exchange rate devaluation.

Case studies presented by instructor (1.5h)

- Latvia during the global financial crisis: policy trade-offs, the role of institutions allowing internal devaluation and the role of other policies to deliver the adjustment needed to maintain the peg

Readings

Michael D. Bordo, Harold James, 2013: The European Crisis in the Context of the History of Previous Financial Crises, NBER Working Paper No. 19112

<http://www.nber.org/papers/w19112>

Taylor, Alan, 2004, "Policymakers in two eras of globalization faced the same "trilemma" of difficult policy". <https://www.imf.org/external/pubs/ft/fandd/2004/03/pdf/taylor.pdf>

Maurice Obstfeld, Jay C. Shambaugh, Alan M. Taylor, 2005, "The Trilemma in History: Tradeoffs among Exchange Rates, Monetary Policies, and Capital Mobility" Working Paper 10396, <http://www.nber.org/papers/w10396>

UNIT 11: MONETARY POLICY IN RESERVE MONEY TARGETING AND EVOLVING REGIMES

This unit presents the building blocks of traditional reserve money targeting, and how these regimes operate in practice nowadays, and how they are evolving. The unit emphasizes how when shifts in money multipliers, money demand and large exogenous shocks occur, the regime delivers high inflation and inflation volatility rather than price stability. The unit also emphasizes what are the factors that led to the evolution of this regimes in practice, not only financial developments. The unit consists of a lecture, a model based workshop and case studies comparing and contrasting the implementation of these frameworks, and the role of communication and coherent, forward looking monetary policy strategy.

Lecture (1.5h) - L11 Monetary Policy in RMT and Evolving Regimes

After briefly elaborating on the theoretical developments that led to the implementation of these regimes, the lecture shows how these frameworks really work in practice, including from the de jure money targeters Germany and Switzerland, to the de facto policy decisions and tradeoffs in these and other cases. The lecture emphasizes how in fact those central banks were focused on delivering price stability rather than sticking to a strict money rule, and how regimes continued to be implemented in practice, including the evolution of the operational framework (from targeting quantities to targeting prices).

- Theoretical underpinnings: quantity theory, commitment to an intermediate target, transmission mechanism
- Monetary targeting in practice
- Transition to flexible money targeting: changing roles of “price” vs. “quantity” and information content of monetary aggregates

Workshop (1.5h)

The workshop discusses economy response to various macroeconomic shocks under reserve money targeting, money targeting and flexible money targeting. We identify and discuss shocks critical for macroeconomic volatility for these frameworks. Responses implied by underlying theoretical model are used for comparison with practical experience as identified in case studies.

- The response of the economy to the following type of shocks: external demand, world commodity prices, domestic demand, and risk premium
- Identification of critical shocks for macroeconomic volatility under money targeting and flexible money targeting
- Importance of flexibility in interest rates and stability of money demand and
- Model fitted for Tanzania data to illustrate how a forecast is generated and a policy action is needed.

Case studies presented by instructor (1.5h)

The objective of these case studies is to compare the experiences of these countries against what is learned in the workshop, draw lessons, and discuss transitional issues.

- Tanzania: how traditional reserve money targeting works in practice
- Uruguay: From money targeting to inflation targeting and back to money targeting

Readings

Rahu Anand, Andy Berg, and Rafael Portillo, Chapter 13 in Tobias Adrian et al, 2018, Advancing the Frontiers of Monetary Policy,

<https://www.bookstore.imf.org/books/title/advancing-the-frontiers-of-monetary-policy>

IMF, 2015, “Evolving Monetary Policy Frameworks in Low-Income and Other Developing Countries” <http://www.imf.org/external/np/pp/eng/2015/102315.pdf>

Andrew Berg, Stephen O'Connell, Catherine Pattillo, Rafael Portillo and Filiz Unsal, 2015, “Monetary Policy Issues in Sub-Saharan Africa” in *The Oxford Handbook of Africa and Economics*, Volume 2, Policies and Practices Edited by Célestin Monga and Justin Yifu Lin

Woodford, Michael, 2008, “How Important is Money in the Conduct of Monetary Policy” *Journal of Money, Credit and Banking*, pp.1561-1598 also as NBER Working paper <http://www.nber.org/papers/w13325.pdf>

UNIT 12: MONETARY POLICY IN INFLATION FORECAST TARGETING REGIMES

The unit presents how monetary policy is conducted under an inflation forecasting framework. The lecture is followed by a user friendly workshop that will show with the help of a model how the economy responds to shocks and to policy actions determined within the model under this forecast targeting framework. Case studies presented by instructors follow, to continue the themes of the lecture, and to build on the general messages of the workshop. Participants’ discussions conclude the unit, to stress the bottom line issues related with conducting monetary policy under such a framework.

Lecture (1.5h) - L12 Monetary Policy in Inflation Forecasting Targeting Regime

The lecture highlights why many central banks have inflation targets, but no necessarily inflation targeting. It explains how the framework works, its theoretical underpinnings, and empirical evidence of the effects of this regime to stabilize the economy, including prices and policy tradeoffs. The lecture also presents institutional issues, including design and operational issues, and highlights best practices. The latest ones are embedded in inflation forecast targeting, which emphasizes the role of an interest rate determined within the whole horizon based on a model, such that the medium term inflation forecast is aligned with the long term inflation target.

- Inflation targeting: an introduction and theoretical underpinnings
- Empirical evidence of how effective IFT is and pros and cons for implementing such a framework; policy tradeoffs
- Operational and design issues in IT, including transitioning into Inflation forecast targeting (IFT)

Workshop (1.5h)

The workshop presents the response of an economy to various macroeconomic shocks under inflation targeting and a forward-looking monetary policy. Responses implied by underlying

theoretical model are used for comparison with practical experiences in case studies discussed in the next section.

- The response of the economy to the following type of shocks: external demand, world commodity prices, domestic demand, and risk premium
- Identification of critical shocks for macroeconomic volatility under inflation targeting
- Importance of flexibility in exchange rate and central bank credibility under inflation targeting
- Model is fitted with data from Chile.

Case studies presented by instructor (1.5h)

The objective is to compare the experiences of these countries against what we learned in the workshop; draw lessons, and discuss transition issues.

- Chile: One of the first emerging markets and commodity rich, highlights role of institutions and coordination of policies for a successful IT

Readings

Tobias Adrian et al, 2018, Advancing the Frontiers of Monetary Policy,
<https://www.bookstore.imf.org/books/title/advancing-the-frontiers-of-monetary-policy>

Tobias Adrian et al, 2018, Advancing the Frontiers of Monetary Policy,
<https://www.bookstore.imf.org/books/title/advancing-the-frontiers-of-monetary-policy>

Clinton, Kevin, C. Freedman, M. Juillard, O. Kamenik, D. Laxton and H. Wang, 2015, “Inflation-Forecast Targeting: Applying the Principle of Transparency,” IMF Working Paper 15/132

Hammond, Gill “*State of the art of inflation targeting—2012*,” Centre for Central Banking Studies, Bank of England. Available via:
<http://www.bankofengland.co.uk/education/ccbs/handbooks/pdf/ccbshb29.pdf>

Sarwat Jahan, 2012, Inflation Targeting: Holding the Line,” *Finance and Development*. Available via: <http://www.imf.org/external/pubs/ft/fandd/basics/target.htm>

UNIT 13: MONETARY POLICY IN MANAGED EXCHANGE RATE REGIMES

This unit analyzes the “hybrid/intermediate” case of a monetary policy framework with a partially fixed exchange rate anchor. It shows theoretical underpinnings and the importance of credibility of such regimes for the effective conduct of monetary policy. The unit will compare the effectiveness of intermediate monetary regimes over time and across countries. The role of the unit is to illustrate policy tradeoffs in these regimes, how to make them most effective, and how monetary policy works if managed but not entirely fixed exchange rate

regimes are chosen. The unit is comprised of a lecture with case studies, and a workshop with discussions.

Lecture (1.5h) - L13 Monetary Policy in Managed Exchange Rate Regimes

- What is a hybrid monetary policy regime and what are its ultimate goals?
- How these regimes work in practice
- Lessons learned and why those regimes are still chosen/implemented

Workshop (1.5h)

The workshop discusses an economy's responses to various macroeconomic shocks under hybrid monetary policy regimes combining elements of forward-looking monetary policy and exchange rate management. The importance of consistency between inflation and the exchange rate objective, and the identification of the critical shocks for macroeconomic are discussed.

- The response of the economy to the following type of shocks: external demand, world commodity prices, domestic demand, and risk premium
- Identification of critical shocks for macroeconomic volatility under hybrid regimes
- Importance of consistency between inflation and exchange rate objectives and flexibility in good and labor markets under hybrid regimes
- Model fitted to Malaysia (inflation targeting and managed float) to reflect policy tradeoffs.

Case studies presented by instructor (1.5h)

- Malaysia

Readings

Benes Jaromir, Berg, Andrew, Portillo, Rafael, Vavra, David, 2013, "Modeling Sterilized Interventions and Balance Sheet Effects of Monetary Policy in a New-Keynesian Framework" IMF Working Paper 13/11 (Washington: International Monetary Fund)

<http://www.imf.org/external/pubs/cat/longres.aspx?sk=40237.0>

Benes Jaromir, Hurnik, Jaromir, and David Vavra, 2008, "Exchange Rate Management and Inflation Targeting: Modeling the Exchange Rate in Reduced-Form New Keynesian Models" Czech Journal of Economics and Finance, 58, 2008, no.3-4.

http://journal.fsv.cuni.cz/storage/1128_str_166_194--benes-hurnik-vavra.pdf

Chamon, Marcos, Ghosh, Atish, Ostry, Jonathan, 2012, "Two Targets, Two Instruments: Monetary and Exchange Rate Policies in Emerging Market Economies" IMF Staff Discussion Notes No. 12/1 (Washington: International Monetary Fund)

<http://www.imf.org/external/pubs/cat/longres.aspx?sk=25732.0>

UNIT 14: UNCONVENTIONAL MONETARY POLICIES

Lecture (1.5h) - L14 Unconventional Monetary Policies

This lecture explains the concepts of quantitative easing and unconventional monetary policy and why they are important. It explains how was applied in the US and many other economies, including in the announced intervention plan of Czech National Bank to avoid liquidity trap. It analyzes banks balance sheets (commercial and the central bank) and presents consequences of these measures and exit preparations, with a focus on possible implications on emerging markets and low income countries.

- What is quantitative easing (QE) and why it is needed
- What is the impact on the economy: monetary aggregates central bank balance sheet, inflationary impact? Are there spillovers on emerging economies?
- Preparations for exiting these policies

Readings

Valiante D, 2015, “The ‘Visible Hand’ of the ECB’s Quantitative Easing” CEPS working document 407

Lavigne, R. S. Sarker and G. Vasishtha, 2014, “Spillover Effects of Quantitative Easing on Emerging-Market Economies,” International Economic Analysis, Bank of Canada

Orphanides A. (2014), “ECB Policy and Fed Normalization”, CEPR Policy Insight, November

UNIT 15: MONETARY POLICY, FINANCIAL STABILITY AND MACROPRUDENTIAL POLICY

The lecture presents the tradeoffs between financial and economic stabilization, how to alleviate them, and the role of the “leaning against the wind” policy and why is debated. The lecture also presents how accommodative monetary policies in large developed countries exacerbate these tradeoffs (risk taking channel of the monetary transmission mechanism). Implications on emerging markets and low income countries, through capital flows, are also discussed. The lecture shows how monetary policy and macroprudential policies need to be designed and implemented jointly to ensure the stability of the prices, and the financial system, even when the output grows close to potential, not only when it is above potential.

Lecture (1.5h) - L15 Monetary Policy Course Financial Stability and Macro Prudential Policies

- “Leaning against the wind” debate

- Tradeoffs between economic and financial stabilization, including risk taking channel, and implications for emerging market and low-income countries
- How to implement macroprudential and monetary policies to preempt crisis

Readings

IMF, 2015, “Monetary Policy and Financial Stability”, IMF policy paper.

https://www.imf.org/~media/Websites/IMF/imported-full-text-pdf/external/np/pp/eng/2015/_082815a.ashx

Adrian, Tobias and Nellie Liang, 2014, “Monetary Policy, Financial Conditions and Financial Stability”, Federal Reserve Bank of New York, Staff reports, No. 690, September

Powell Jeremy, 2014, Monetary Policy, Risk Taking and Spillovers, Remarks at “Global Research Forum on International Macroeconomics and Finance”, Sponsored by the ECB, the Federal Reserve Board, and the Federal Reserve Bank of New York, November.

AUXILIARY UNITS

UNIT A1: MONETARY POLICY IN FUND SUPPORTED PROGRAMS

The role of this unit is to teach participants how monetary policy is assessed in a Fund supported program. This unit is the conclusion of the monetary policy course because it shows the evolution of monetary policy thinking, frameworks, and conditionality. This unit is distinct from the corresponding unit on the monetary sector in the financial programming and policies course. The former details the design of the monetary policy taking into account of the country monetary policy experience and operating framework.

Lecture (1.5h)

- Role of policy (especially monetary) conditionality in Fund supported programs
- Monetary policy conditionality under various frameworks: (i) fixed exchange rate regimes, (ii) money targeting, (iii) inflation targeting and (iv) evolving monetary policy regimes
- Experience with monetary policy targets in Fund supported programs: empirical evidence and adherence to program targets

Readings

IMF, 2014, “Conditionality in Evolving Monetary Policy Regimes”, IMF policy paper, March. <https://www.imf.org/~media/Websites/IMF/imported-full-text-pdf/external/np/pp/eng/2014/030514b.ashx>

IMF, 2000, “Inflation Targeting and IMF Conditionality”, IMF policy paper, January.

UNIT A2: MONETARY POLICY AND INEQUALITY

The aim of this unit is to teach participants the the importance of inequality in the current policy debate, how to distinguish alternative transmission mechanisms from monetary policy to inequality and discuss whether monetary policy tools should be used to address inequality and income distribution issues.

Case study (1.5 h)

The purpose of this case study is to analyze the interaction between monetary policy and inequality in two countries: Philippines and Cech Republic

Readings

Ben Bernanke, 2015, “Monetary Policy and Inequality,” Brookings Blog, June 1, 2015.

Available at:

<https://www.brookings.edu/blog/ben-bernanke/2015/06/01/monetary-policy-and-inequality/>

Pedro Amaral, 2017, “Monetary Policy and Inequality,” Economic Commentary, Federal Reserve Bank of Cleveland, Number 2017-01. Available at:

<https://www.clevelandfed.org/~media/content/newsroom%20and%20events/publications/economic%20commentary/2017/ec%20201701%20monetary%20policy%20and%20inequality/ec%20201701%20pdf.pdf>

Davide Furceri, Prakash Loungani, and Aleksandra Zdzienicka, 2016, “The Effects of Monetary Policy Shocks on Inequality,” IMFWP 16/245. Available at:

<https://www.imf.org/external/pubs/ft/wp/2016/wp16245.pdf>.

UNIT A3: CENTRAL BANK DIGITAL CURRENCIES

The aim of this unit is to analyze: (i) The ABCD of Fintech; (ii) Virtual Currencies (VCs) and Cryptocurrencies; (iii) Blockchain and Distributed Ledger Technology (DLT) and (iv) Central Bank Digital Currencies (CBDCs) and implications for central banking and financial sector

Readings

Bech Morten, Garratt Rodeny, 2017, “Central Bank Cryptocurrencies”, BIS Quarterly Review. Available at: https://www.bis.org/publ/qtrpdf/r_qt1709f.htm

Prasad, Eswar, 2018, “Central Banking in a Digital Age: Stock-Taking and Preliminary Thoughts”, the Brookings Institution. Available at: <https://www.brookings.edu/research/how-will-fintech-and-digital-currencies-transform-central-banking>

Summary of Instructional Time		
Units	Lecture	Workshop/Case Study/Activities
1. Introductory Lecture	1.5	
2. Institutional Frameworks, Goals and Links with Other Policies	1.5	
3. Monetary Policy Frameworks	1.5	
4. Monetary Policy Instruments and Operations	1.5	1.5
5. Main Concepts and Measurement Used in Monetary Policy Analysis	1.5	1.5
6. Monetary Policy Transmission Mechanism	1.5	1.5
7. A Quantitative Framework for Monetary Policy Analysis	1.5	
8. Role of Forecasting and Policy Analysis System	1.5	
9. Role of Central Bank Communications	1.5	
10. Monetary Policy in Hard Pegs	1.5	1.5
11. Monetary Policy in Reserve Money Targeting and Evolving Regimes	1.5	1.5
12. Monetary Policy in Inflation Forecasting Targeting Regimes	1.5	1.5
13. Monetary Policy in Managed Exchange Rate Regimes	1.5	1.5
14. Unconventional Monetary Policies	1.5	
15. Monetary Policy, Financial Stability and Macroprudential Policy	1.5	1.5
Subtotal	22.5	12
Auxiliary Units		
A1. Monetary policy in fund supported programs	1.5	
A2. Monetary Policy and Inequality	1.5	1.5
A3. Central Bank Digital Currencies	1.5	
Subtotal (Core and Auxiliary units)	27	13.5
Other Components		
Admin Briefing	0.5	
Opening: Introductory Remarks, Welcome, Initial Quiz	1	
Preparations for group presentations		6
Group presentations		1.5
Closing: Final Quiz, Course evaluation, Closing remarks	1.5	
Subtotal	3	7.5
Total	30	21