

## **FINANCIAL MACROECONOMICS: A Policy Rate Approach**

(with applications to India's financial and banking system)

PGP Fifth term Elective Offering (open to other programs except PGPEM)

Prof. Vivek Moorthy, E Block, 1st Floor x 3283 Mobile: 9844266712 email: vivek.moorthy@iimb.ac.in

Contacting me easily: I am generally and quickly reachable on phone at any time between 7am and 11pm at either number above. If you cannot reach me or I do not answer, then you can leave a message or email.

GRADING: A midterm 50%, in class announced quiz (10%), Group Project (30%) and Class Participation (10%). Most questions will be short verbal and/or numerical ones, requiring a few lines, and also fill in the blanks questions and/or MCQs. The Project will be done in groups of 4-6, to be finalized by the mid-term.

Website: Various items cited here and usually listed by date are on **economicsperiscope.com**

COURSE DESCRIPTION: Financial Macroeconomics (abbreviated as FINMAC) deals with the impact of monetary and fiscal policy, both conceptually and operationally. When the central bank changes the Policy Rate (as in the latest repo rate cut by RBI under new Governor Urjit Patel in October 2016 from 6.5% to 6.25%) that transmits through the banking and financial system via its impact on various interest rates, and other variables.

Unfortunately, it is not possible to analyze this operationally using the IS/LM model, taught in core Macroeconomics, as in Mankiw's text. This is because the policy variable in the IS/LM model is money supply. However, in the real world the policy variable is the interest rate. For more on this issue, which will also be dealt with in this course, see An Abbreviated Prologue, citing Berkeley Professor de Long, posted up front or "Why IS/LM is Irrelevant and Wrong" VM, February 2015 for a more detailed discussion. Globally, professors teaching Macro are switching to a Policy Rate Approach for teaching Core Macroeconomics.

Correct analysis requires a conceptual framework in which the interest rate is the policy variable, not money supply. This course builds up and provides such a Policy Rate framework, based on my June 2000 Study, and based on experience of USA from 1960s through 1990s, and then applies it to India in recent years.

Also, this course is the precursor to a subsequent course Global Macroeconomics and Financial Markets (GMFM) that I am likely to offer. FINMAC is focused upon the closed economy and the determinants of interest rates, while the subsequent course GMFM focusses upon the open economy and the determinants of exchange rates. This course FINMAC is conceptually more important, since one has to first analyze interest rates before dealing with exchange rates. While not essential for GMFM, which involves foreign exchange trading, it provides very useful foundations.

REQUIREMENT: None except a strong interest in the subject. Attendance is voluntary.

### COURSE MATERIAL AND CONTENT

The lectures will follow relevant chapters from my macro books under way. All topics in macroeconomics and monetary policy are closely connected with each other.

The **Schematic** of Books (Pg 4) illustrates how the mini books (abbreviated EGI, FMPRA, GMFM) fit into the full text Macroeconomics: An Integrated, Financial Approach (MIFA). Its final version will be distilled from these mini books. Please go over the Schematic very carefully to understand what this course and the next GMFM are about. The Schematic is like a subway or metro map is needed to get around a big city.

READINGS: You basically need to read relevant sections and chapters from the text. Various articles to read are referenced in these texts. Some of my articles for the course have been put on my website (e.g. June 2005 and

October 2016 entries). The last is my Review in October 2016 of Who Moved my Interest Rate? July 2016, by former RBI Governor Subbarao. Note: Subbarao discusses the Phillips curve and stagflation, but no mention of IS/LM.

**The financial** sector is closely linked to the labour market, and analyzing it requires real sector (Labour and Product Market) foundations. Hence to begin with parts of Chapters 1, 2, 3 and 6 of this first mini-book, Applied Macroeconomics: Employment, Growth and Inflation (EGI), IK Publishers will be covered. This came out as an e-book in January 2014, has been revised and has gone for printing (See Page # 6). It broadly corresponds to Module II of the full book MIFA. Much of monetary policy revolves around the output gap and expected inflation, analyzed in depth in EGI, and the model developed in EGI is carried over into the next mini book and Module III, central to this course.

**The crucial** part of this course comprises the second mini-book: Financial Macroeconomics: A Policy Rate Approach (FMPRA). This mini-book develops an alternative framework to IS/LM, linking the Policy Rate to inflation and output and applies these episodes in USA and India (based on my June 2000 coauthored study for RBI). It then explains the classical versus Keynesian approaches to determination of interest rates and output and evaluates their relevance.

**Chapter 7** of FMPRA develops an expanded model of Chapter 2 of FMPRA to explain why the yield curve (Long rate minus Short rate) under normal conditions predicts GDP growth in developed countries and with increasing relevance to India. For more Google “The Yield Curve as a Leading Indicator, Frequently Asked Questions”, Arturo Estrella, Federal Reserve Bank of New York, October 2005) or just view the yield curve GDP plots if you don’t have time to read.

**The rest** of FMPRA broadly deal with Fiscal Policy and its interaction with Monetary Policy (Module IV of the full book). It goes into classic debates on bond versus money financing of the deficit and applies the Domar model of debt to policy, in particular India’s Fiscal Responsibility and Budget Management Act of 2003, with its revenue deficit target. The contents of this mini book FMPRA have been mostly written but a lot of wrapping up is needed for the final book.

The last part of the course deals with monetary policy transmission in India: how do changes in the repo rate affect other rates, in particular bank deposit and lending rates for India, explaining trends and variations in credit and deposit growth, Treasury and non-Treasury income of banks, their profitability and balance sheets, and their response to rate changes. Should banks be made to adopt marginal cost pricing for deposits as RBI has tried to implement?

**PROJECT:** To be based on the last part of this course, with each group choosing a specific bank and time period to analyze. Based on mutual discussion, we will arrive at a specific topic by the Midterm. (See for example “Private banks' low cost deposit share dips in Q3” Business Standard Jan 2015 or “SBI cuts one year deposit rate to 6.75%, July 2017 Financial Express Page 5 of this handout) as a guide to a suitable kind of topic for the Project). The pre announced Quiz (10%) may be on a very current issue or on course material and will be based on the post mid-term portion.

DETAILED OUTLINE on the next Page # 3

**DETAILED OUTLINE:** The rough outline is below. Some topics may take more than allotted time and others less, but the differences should even out. I plan to call a suitable guest speaker.

Lecture No.	Topics (from the macro text books in the Schematic Attachment) Generally full chapters will not be covered but relevant excerpts	Location in Schematic of Books
1 & 2	Building the Framework For a Growing Economy	Ch 1, EGI
3 & 4	From Short to Long Run Phillips Curve: Growth Inflation Linkages	Ch 2, EGI
4 & 5	Cost Push versus Demand Pull Approaches to Inflation and Quantity Theory	Ch 3, EGI
5	Monetary Policy and Stagflation Episodes	Ch 5,7 EGI
6	Central Banks, Policy Rates and Bank Reserves & Basic Critique of IS/LM	Ch 1, FMPRA, notes
7,8	Linking Interest Rates, Output and Inflation: <b>Monetarist Paradox Model</b>	Ch 1, FMPRA
8,9	Application to RBI 2008-2012 and Evaluation of current RBI Inflation Targeting Policy	Ch 2 FMPRA
9	Central Bank Independence And Inflation Bias	Ch 3, FMPRA
10,11	The Loanable Funds Approach versus Keynesian multiplier	Ch 4, FMPRA
11	Determinants of Consumption, Savings and Investment	Ch 5, FMPRA
	<b>MIDTERM</b> outside of Class on above portion (after Lecture 10 or 11)	
12	Fiscal Policy, the Debt market and Interest Rates	Ch 6, FMPRA
13	<b>Linking Short Rates, Long Rates and Output: Yield Curve Transmission Model</b>	Ch 7, FMPRA
14	The Domar Debt Stability Model and Fiscal Monetary Coordination	Ch 8 FMPRA
15	India's Fiscal Trends, Fiscal Monetary Responsibility Act (FRBMA) and Its Evaluation	Ch 8, FMPRA
16	Credit and Money: RBI and Commercial Bank Money Supply Basic Data & Balance Sheets	Module V, MIFA
17	Evolution of Monetary Policy & Evaluation of Inflation Targeting & Current RBI Policy	Module V MIFA
18	Transmission Process in India: From Repo Rate to Deposit & Lending Rates	In Progress
19	Tentative Date for Guest Speaker	Not Applicable
20	Presentation of Projects	Not Applicable

My Website [economicsperiscope.com](http://economicsperiscope.com) is being revamped and the long list of articles will be compressed to web links.

**Phones: Office 080-26993283 Mobile 9844266712**

e-mail: [vivek.moorthy@iimb.ernet.in](mailto:vivek.moorthy@iimb.ernet.in)

**SCHEMATIC OF BOOKS AS OF SEPTEMBER 2016 (EGI, FMPRA, GMFM mini-books and MIFA comprehensive book)**

**MACROECONOMICS: AN INTEGRATED FINANCIAL APPROACH (MIFA) In Progress**

A comprehensive text that will condense all chapters of mini-books into composite chapters

MODULE AND CHAPTER	TITLE OF CHAPTERS
--------------------	-------------------

<b>MODULE ONE</b>	<b>BUILDING BLOCKS</b>
Chapter 1	The Subject Matter
Chapter 2	Price Indices and Inflation Measurement
Chapter 3	Output and National Income Accounting

<b>MODULE TWO</b>	<b>THE LABOUR AND PRODUCT MARKETS</b>
CHAPTER 4	Building the Framework for a Growing Economy
CHAPTER 5	The Phillips Curve and Inflation
CHAPTER 6	Cost Push, Demand Pull Inflation and Stagflation
CHAPTER 7	The Complex Anatomy of Unemployment

<b>MODULE THREE</b>	<b>MONETARY POLICY FOUNDATIONS: A POLICY RATE APPROACH</b>
CHAPTER 8	Central Banks, Policy Rates and Bank Reserves
CHAPTER 9	Linking Inflation, Interest Rates, Output: The Monetarist Paradox Model
CHAPTER 10	Savings, Investment, Loanable Funds versus Keynesian Multiplier

<b>MODULE FOUR</b>	<b>THE FINANCIAL MACROECONOMY AND FISCAL POLICY</b>
CHAPTER 11	Fiscal Policy, the Debt Market and Interest Rates
CHAPTER 12	Linking Short Rates, Long Rates and Output: An Yield Curve Model
CHAPTER 13	The Fiscal-Monetary Policy Nexus

<b>MODULE FIVE</b>	<b>BANKS, THE FINANCIAL SYSTEM AND MONETARY POLICY</b>
CHAPTER 14	Banks, Credit Creation, Money Supply and Money Multiplier
CHAPTER 15	Money Demand, Quantity Theory and Inflation
CHAPTER 16	The Evolution of Monetary Policy (and money supply in Great Depression)

<b>MODULE SIX</b>	<b>GLOBAL MACROECONOMICS AND FINANCIAL MARKETS</b>
CHAPTER 17	Balance of Payments and Exchange Rate Systems
CHAPTER 18	Global Financial Markets and Exchange Rates
CHAPTER 19	Exchange Rate & Output Adjustments: Episodes and Policies Section on From Gold Standard to Interwar Period

<b>MODULE SEVEN</b>	<b>SPECIAL TOPICS</b>
CHAPTER 20	Labour Market Policies for Macroeconomic Stability

These mini-books can be used for courses in various degrees and programmes

Broadly Corresponds To Module Two of Full Book (MIFA)

**APPLIED MACROECONOMICS: EMPLOYMENT, GROWTH AND INFLATION (EGI)**

CHAPTER	TITLE OF CHAPTERS
1	Building the Framework for a Growing Economy
2	From Short-Run to Long-Run Phillips Curve
3	The Costs and Consequences of Inflation
4	Cost-Push versus Demand Pull Inflation and Basic Quantity Theory
5	Understanding the Seventies Stagflation
6	Emerging Economies and BRICS: Rapid Rise to Slowdown
7	Dissecting India's Stagflation Episode
8	<b>Analyzing India's Demonetization</b>

Broadly Corresponds To Module Three and Parts of Module Four of Full Book (MIFA)

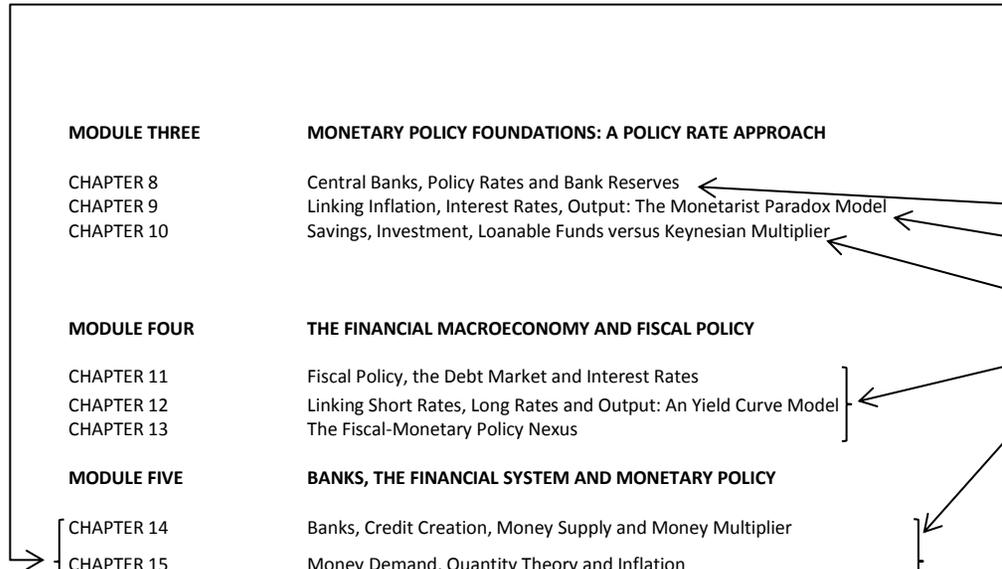
**FINANCIAL MACROECONOMICS: A POLICY RATE APPROACH (FMPRA) In progress**

CHAPTER	TITLE OF CHAPTERS
PART A	Foundations of Financial Macroeconomics
PROLOGUE	The Rationale for this Book
1	Central Banks, Policy Rates and Bank Reserves
2	<b>Linking Inflation, Interest Rates and Output: Monetarist Paradox Model</b>
3	Central Bank Independence and Inflation Bias
4	Real Interest Rate, Loanable Funds versus Keynesian Multiplier
5	Determinants of Consumption, Savings and Investment
PART B	The Financial Macroeconomy, the Banking System and Monetary Policy
6	Fiscal Policy, the Debt Market and Interest Rates
7	<b>Linking Short Rates, Long Rates and Output: An Yield Curve Model</b>
8	The Fiscal-Monetary Policy Nexus (and application to India)
9	Banks, Credit Creation, Money Supply and Money Multiplier
10	Money Demand, Interest Rates, and Quantity Theory
11	The Evolution of Monetary Policy (and money supply in Great Depression)

Broadly Corresponds To Module Six of Full Book (MIFA)

**GLOBAL MACROECONOMICS AND FINANCIAL MARKETS (GMFM) In Progress**

CHAPTER	TITLE OF CHAPTERS
PART A	Balance of Payments, Exchange Rates and the International Monetary System
1	System of Exchange Rates and Link to Foreign Exchange Convertibility
2	The International Monetary Systems and its Changes
3	Balance of Payments Accounting
4	Interaction between Balance of Payments, Economy and Money Supply
5	India's Exchange Rate and Forex Policies and their Impact since Independence
PART B	Global Financial Markets and Exchange Rates
6	The Global Foreign Exchange Market
7	Approaches to Exchange Rate and Asset Price Determination
8	Impact of News on Exchange Rate and Financial Markets
9	Profiting from Market Inefficiency
10	Monetary Policy, Equities and Exchange Rates (Section on 1920s Equity Market)
11	Long Term Investment Strategies



## Private banks' low cost deposit share dips in Q3

Festive season cash demand, current a/c deposit slowdown to blame

Somasroy Chakraborty & Nupur Anand | Kolkata/Mumbai January 28, 2015 Last Updated at 00:50 IST

The low-cost deposits of private banks came under pressure in the quarter ended December due to tepid growth in current account deposits and expansion of overall deposit base. Most banks that announced their Q3 FY15 results have reported either flat or marginal decline in their current account and savings account (Casa) deposits ratio. Casa are low-cost deposits that help banks keep their margins stable.

ICICI Bank and HDFC Bank are yet to announce their Q3 results. “There has been some pressure on the Casa front but I believe it is only cyclical. In the third quarter, there is some outflow of cash from the savings account because it is the festive season,” said Jairam Sridharan, head — payments and lending, Axis Bank.

Banks also claimed that with deposit rates trending downwards, depositors had been shifting the money from savings account to fixed deposits. Some banks had started making changes in different maturities in deposit rates in the December quarter.

Explaining the development, Nitin Kumar, a banking analyst with Prabhudas Lilladher, said, “The daily average Casa balance has been stable for private banks, as they have been gaining market share from public sector banks. But now, private banks are also focusing on raising term deposits to support their balance sheet growth. Also, there is some opportunistic shift (from Casa to term deposits) as interest rates are expected to fall.”

Private sector lenders have been eating away at the market share of their public sector counterparts by offering better customer service, product innovation and branch expansion. These banks have seen their net interest margins remain either flat or come under pressure on a sequential basis in the third quarter, as the share of Casa in overall deposits came down.

“The Casa ratio has declined because our balance sheet growth has been faster than the growth in low-cost deposits. Our customer deposits have increased by 37 per cent. As a result, the share of Casa in total deposits has come down. But there is still growth of around 18 per cent in our Casa deposits. We expect the Casa ratio to return to 25 per cent in the next three years,” said Murali Natrajan, managing director and chief executive officer, DCB Bank.

Another reason for the muted growth in Casa as part of total deposits has been the slow growth in the corporate sector. With investments not picking up in several sectors, bankers claim the quantum of money being kept in current accounts by corporates has been fluctuating, hitting growth.

Credit demand has been decelerating and loans grew at its slowest pace in a decade in September quarter last year.

According to the latest data of the Reserve Bank of India, by year-on-year growth in bank credit was 0.7 per cent as on January 9.

Share of Casa ratio in total deposits (%)



Also see related article ‘Banks eye measures to ease liquidity’, Business Standard, same day 28 Jan 2015.

## HIGHLIGHTS AND NOVEL FEATURES OF THIS BOOK APPLIED MACROECONOMICS: EMPLOYMENT, GROWTH AND INFLATION

Develops an integrated framework, combining short run fluctuations with long run growth, unlike widely used text books that treat these topics separately.

- Works out growth arithmetic for relevant variables, instead of the usual graphical treatment in main texts.
- Critically evaluates alternative approaches to growth and development
  - emphasizes the role of property rights, title to land, and labour supply constraints.
  - investigates the impact of Ease of Doing Business rank upon GDP growth. Expounds a classical macroeconomics approach and related concepts.
- Provides wide ranging evidence on the natural rate hypothesis and the expectations augmented Phillips curve, integrating the latter with a demand based approach to inflation.
- Puts together evidence challenging the conventional view that the mid-1970s stagflation was due to the October 1973 quadrupling of oil prices.
- Examines India's stagflation episode, using these concepts.

Should be useful for academics, business and financial analysis, policy makers and others following India.

- Evaluates the role of policy paralysis, National Rural Employment Guarantee Act of 2006, minimum support price system in agriculture and Reserve Bank of India policies with regard to food prices, inflation and growth, for the ten year period ending 2013.
- Includes a Data Appendix, written before India's controversial new GDP series in January 2015, followed by an update assessing these revisions a year later.

Can be used for a course on the Indian economy or emerging economies.

- **लव्हादे-ने-नेदीव**, Incorporates research done at IIM Bangalore on food inflation.
- Analyses the boom and subsequent slowdown of BRIC economies, and compares growth and inflation trends in China, India and major ASEAN countries.

The last Chapter analyzing India's 2016 demonetization covers fiscal, monetary and banking aspects.

With a detailed Subject Index, this book can serve as a handy reference or text for many of the topics covered here.

**Most important of all**, the model developed here yields values of inflation that carry over to the central bank's decisions, analysed in the subsequent book Financial Macroeconomics: A Policy Rate Approach (see Schematic of Books). This subsequent book is meant to replace the dominant but irrelevant IS/LM framework.

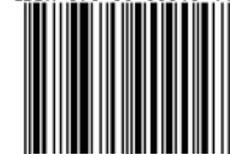
**Vivek Moorthy** is Professor, Economics and Social Sciences Area, Indian Institute of Management Bangalore. He obtained his Master's degree from Jawaharlal Nehru University and his doctorate in economics from UCLA. After teaching at Pennsylvania State University, he worked at the Federal Reserve Bank of New York, in the Domestic Research Division, and then as Senior Economist, Foreign Exchange Analysis. At IIMB he teaches courses in macroeconomics and global financial markets. A chronological list of his publications is provided on his main website [economicsperiscope.com](http://economicsperiscope.com).



**I.K. International Publishing House Pvt. Ltd.**

S-25, Green Park Extension, Uphaar Cinema Market  
New Delhi-110016, India • E-mail: [info@ikinternational.com](mailto:info@ikinternational.com)

ISBN 978-93-85909-04-7



9 789385 909047

[www.ikbooks.com](http://www.ikbooks.com)