Dsge Macroeconomic Models A Critique E Garcia

??????????????????????,??????????????????????,???????????90????????????,????????????????????????????????????,?????????

DSGE-models have become important tools of analysis not only in academia but increasingly in the board rooms of central banks. The success of these models has much to do with the coherence of the intellectual framework it provides. The limitations of these models come from the fact that they make very strong assumptions about the cognitive abilities of agents in understanding the underlying model. In this paper we relax this strong assumption. We develop a stylized DSGE-model in which individuals use simple rules of thumb (heuristics) to forecast the future inflation and output gap. We compare this model with the rational expectations version of the same underlying model. We find that the dynamics predicted by the heuristic model differs from the rational expectations version in some important respects, in particular in their capacity to produce endogenous economic cycles.

Modern business cycle theory and growth theory uses stochastic dynamic general equilibrium models. In order to solve these models, economists need to use many mathematical tools. This book presents various methods in order to compute the dynamics of general equilibrium models. In part I, the representative-agent stochastic growth model is solved with the help of value function iteration, linear and linear

quadratic approximation methods, parameterised expectations and projection methods. In order to apply these methods, fundamentals from numerical analysis are reviewed in detail. In particular, the book discusses issues that are often neglected in existing work on computational methods, e.g. how to find a good initial value. In part II, the authors discuss methods in order to solve heterogeneous-agent economies. In such economies, the distribution of the individual state variables is endogenous. This part of the book also serves as an introduction to the modern theory of distribution economics. Applications include the dynamics of the income distribution over the business cycle or the overlapping-generations model. In an accompanying home page to this book, computer codes to all applications can be downloaded.

The outcome of any important macroeconomic policy change is the net effect of forces operating on different parts of the economy. A central challenge facing policy makers is how to assess the relative strength of those forces. Dynamic Stochastic General Equilibrium (DSGE) models are the leading framework that macroeconomists have for dealing with this challenge in an open and transparent manner. This paper reviews the state of DSGE models before the financial crisis and how DSGE modelers responded to the crisis and its aftermath. In addition, we discuss the role of DSGE models in the policy process.

This book is a further development of the theory of parametric control. It includes: numerical methods of testing (verification) of software implementation of mathematical

models by assessing the stability of mappings defined by the model; sufficient conditions for the existence of the solutions of some types of problems of dynamic optimization; the existence of continuous dependence of optimal values of criteria on exogenous functions and parameters; and the existence of points of bifurcation of extremals of such problems. It demonstrates that this theory offers a constructive methodology for middle-term forecasting, macroeconomic analysis and estimation of optimal values of economic characteristics on the basis of advanced global mathematical models, namely Computable General Equilibrium (CGE) Model, Dynamic Stochastic General Equilibrium (DSGE) Model, and Hybrid Econometric model. In addition, it includes conditions for the applicability of the computational experiments' results, into practice.

This thesis investigates nominal frictions in price setting behaviour from both microeconometric and macroeconometric perspectives. Chapter I and II use the unpublished retailer-level and producer-level microdata underlying CPI and PPI in the UK statisti-cal authority to study empirical price rigidity and price setting mechanisms. Based on the conventional frequency-based method, little rigidity is found since the implied price duration is less than half a year. However, this method is shown to significantly underestimate the true duration due to oversampling of short price spells. Alternative-ly, a trajectory-based cross-sectional approach is adopted, giving an unbiased and ro-bust estimate for average duration over 9 months (retailer price) and 15 months (pro-ducer

price). That is to say, producer price has higher degree of rigidity than retailer price if cross-sectional approach is used. Both time-dependent and state-dependent features exist in price setting. In particular for retailer price, results also suggest con-spicuous heterogeneities in price rigidity across sectors and shop types, but weak dif-ference across regions and time. The overall hazard function of price change can be decomposed into a decreasing component from goods sectors and a 4-month cyclical component from services sectors. The empirical findings in the microdata not only contribute to the microdata literature on price setting behaviour, but also make possible the calibrations of macroeconomic DSGE model with heterogeneous price setting. Hence, based on the microdata find-ings in Chapter I and II, Chapter III uses Classical maximum likelihood and Bayesian inference to evaluate and estimate DSGE models with various price setting mecha-nisms. A vital problem with homogeneous price setting models is that they cannot generate enough persistence while keeping calibration of average price rigidity con-sistent with microdata evidence. In contrast, this -persistence puzzle? is successfully resolved by heterogeneous price setting models, which greatly improve the dynamic performance of macroeconomic models.

This dissertation attempts to shed some light on three issues of empirical macroeconomics: the performance of several macroeconomic estimation methods, the estimation of the New Keynesian Phillips curve (NKPC) using micro-level data and forecast-based evaluation of the NKPC. The first chapter employs a stylized dynamic

stochastic general equilibrium (DSGE) model to compare MLE, GMM and Bayesian method. Monte Carlo simulation evidence suggests that MLE and Bayesian generally perform better than GMM, but good guess of initial values in the numerical routines and tight priors are crucial to their success. When the model is dynamically misspecified, the bias of an estimator is determined by the difference between the first order solution dynamics and the higher order ones. The performance of GMM could be improved by fixing some troublesome parameters, but improvement depends on the structure of the model. In addition, this strategy does not work for Bayesian method when priors are not informative. The second chapter provides panel data evidence of U.S. inflation dynamics based on industry-level data. The results strongly support the relative importance of the forward-looking term in NKPC as well as a limited role of intrinsic inflation persistence. Therefore, it may not be appropriate to treat intrinsic persistence as the deep structure of the economy. In addition, the analysis suggests that unit material cost is an appropriate proxy of real marginal cost in the NKPC while unit labor cost is not since it is countercyclical. These conclusions are robust to different measures of the driving variable and additional instruments used in the estimation procedures. The final chapter further explores which source of inflation persistence, intrinsic or extrinsic, is more important by forecast-based evaluation. To identify the source of inflation persistence in each model, the driving force in the purely forward-looking NKPC is persistent while the driving variable in the hybrid model does not have

any persistence. Two models are then used to generate one-period-ahead and path forecasts. The results generally indicate that extrinsic persistence is more helpful in prediction. Thus researchers may not emphasize the importance of intrinsic persistence in macroeconomic analysis.

This book offers a unified, comprehensive, and up-to-date treatment of analytical and numerical tools for solving dynamic economic problems. The focus is on introducing recursive methods -- an important part of every economist's set of tools -- and readers will learn to apply recursive methods to a variety of dynamic economic problems. The book is notable for its combination of theoretical foundations and numerical methods. Each topic is first described in theoretical terms, with explicit definitions and rigorous proofs; numerical methods and computer codes to implement these methods follow. Drawing on the latest research, the book covers such cutting-edge topics as asset price bubbles, recursive utility, robust control, policy analysis in dynamic New Keynesian models with the zero lower bound on interest rates, and Bayesian estimation of dynamic stochastic general equilibrium (DSGE) models. The book first introduces the theory of dynamical systems and numerical methods for solving dynamical systems, and then discusses the theory and applications of dynamic optimization. The book goes on to treat equilibrium analysis, covering a variety of core

macroeconomic models, and such additional topics as recursive utility (increasingly used in finance and macroeconomics), dynamic games, and recursive contracts. The book introduces Dynare, a widely used software platform for handling a range of economic models; readers will learn to use Dynare for numerically solving DSGE models and performing Bayesian estimation of DSGE models. Mathematical appendixes present all the necessary mathematical concepts and results. Matlab codes used to solve examples are indexed and downloadable from the book's website. A solutions manual for students is available for sale from the MIT Press; a downloadable instructor's manual is available to qualified instructors.

Suitable for students and researchers seeking coverage of the developments in macroeconomics, this title lays out the core ideas of modern macroeconomics and its links with finance. It presents the simplest general equilibrium macroeconomic model for a closed economy, and then gradually develops a comprehensive model of the open economy.

This is a Chinese translation of "Rethinking Macro Policy II" (SDN/13/03). This note explores how the economic thinking about macroeconomic management has evolved since the crisis began. It discusses developments in monetary policy, including unconventional measures; the challenges associated with

increased public debt; and the policy potential, risks, and institutional challenges associated with new macroprudential measures. Rationale: The note contributes to the ongoing debate on several aspects of macroeconomic policy. It follows up on the earlier “Rethinking” paper, refining the analysis in light of the events of the past two years. Given the relatively fluid state of the debate (e.g., recent challenges to central bank independence), it is useful to highlight that while many of the tenets of the pre-crisis consensus have been challenged, others (such as the desirability of central bank independence) remain valid.

This volume uses state of the art models from the frontier of macroeconomics to answer key questions about how the economy functions and how policy should be conducted. The contributions cover a wide range of issues in macroeconomics and macroeconomic policy. They combine high level mathematics with economic analysis, and highlight the need to update our mathematical toolbox in order to understand the increased complexity of the macroeconomic environment. The volume represents hard evidence of high research intensity in many fields of macroeconomics, and warns against interpreting the scope of macroeconomics too narrowly. The mainstream business cycle analysis, based on dynamic stochastic general equilibrium (DSGE) modelling of a particular type, has been criticised for its inability to

predict or resolve the recent financial crisis. However, macroeconomic research on financial, information, and learning imperfections had not yet made their way into many of the pre-crisis DSGE models because practical econometric versions of those models were mainly designed to fit data periods that did not include financial crises. A major response to the limitations of those older DSGE models is an active research program to bring big financial shocks and various kinds of financial, learning, and labour market frictions into a new generation of DSGE models for guiding policy. The contributors to this book utilise models and modelling assumptions that go beyond particular modelling conventions. By using alternative yet plausible assumptions, they seek to enrich our knowledge and ability to explain macroeconomic phenomena. They contribute to expanding the frontier of macroeconomic knowledge in ways that will prove useful for macroeconomic policy.

"Even long before the recent financial and economic crisis of 2007/2008 economists were more than aware of the insufficiencies and a lack of realism in macroeconomic modelling and model calibration methods, including those with DSGE methods and models, and spelled the need for further enhancements. The issues this research started addressing even before the 2008 crisis imposed demand for improvements, was use of single, fully informed rational agents in

those modes. Consequently, the first part of this research project was aiming to improve the DSGE econometric methods by introducing novel solution for DSGE models with imperfect, partial information about the current values of deep variables and shocks, and apply this solution to imperfectly informed multiple agents with their different, inner-rationality models. Along these lines, this research also shows that DSGE models can be extended and suited to both, fitting and estimation of long-term yield curve, and to estimating with rich data sets by extending further its inner-mechanism. In the aftermath of the 2008 crises, which struck at the beginning of this research project, and the subsequent, extensive criticism of DSGE models, this research analyses the alternative causes of the crisis. It then focuses on identifying its possible causes, such as yet unknown debt accelerator mechanism and the related, probable model miss-specifications, rational inattention, and as well, a role of institutional policies in both the development of the crisis and its resolution. And finally, in a response to many of the critiques of the, usually monetary policy oriented DSGE models, this research project provides another set of novel extensions to such models, aiming to bring more of Keynesian characteristics suited to a more active, endogenous fiscal policy deemed needed in the aftermath of the crisis. This project, henceforth, extends the NK-Neo-Classical synthesis monetary

DSGE models with a novel, endogenous, counter-cyclical fiscal policy rule driven by news and unemployment changes. It then also shows overall benefits of the resulting, mutually active, monetary-fiscal policy for both capital utilisation and overall economic stability." -- Abstract.

Dynamic Macroeconomic Models in Emerging Market EconomiesDSGE Modelling with Financial and Housing SectorsSpringer Nature

"This dissertation consists of (i) methodological papers introducing new ways to deal with time variation and nonlinearities in macroeconomic models and (ii) applied papers on various macroeconomic topics in which time variation and nonlinearities are key elements of the analysis. Regarding the methodological papers, contributions include a new model setup for Vector Autoregressive models with time-varying parameters and a new simulation method for nonlinear Dynamic Stochastic General Equilibrium (DSGE) models. Regarding the applied papers, topics include the time variation in the dynamic effects of unanticipated changes in tax policy and the effects of employment protection legislation on the sectoral allocation of firms and workers. Finally, a non-stationary DSGE model is developed for the Dutch economy in which the co-integrating properties of the data are carefully accounted for."--Samenvatting auteur.

This dissertation consists of five chapters addressing analytically and empirically

U.S. Postwar business cycle fluctuations. Markov Switching models and Bayesian estimation methods are used to investigate United States macroeconomic dynamics in the last 60 years. Chapter 1 introduces the structure of this dissertation. Chapter 2 proposes a dynamic stochastic general equilibrium (DSGE) model with Markov Switching and heteroskedastic shocks to examine the role of agents' beliefs separately from changes in monetary policy in explaining inflation fluctuations. Bayesian analysis is conducted with Markov Switching to support regime switches in the private sector, in the implementation of monetary policy and in the volatility of shocks in the U.S. Postwar economy, which are related to the "Great Inflation", the "Great Moderation" and the 2008 financial crisis. A counterfacutal analysis found that if agents maintained a weak response to macroeconomic dynamics over time, there would be lower inflation during the "Great Inflation". In addition, irrespectively to monetary policy regimes, supply shocks are the main driver of inflation fluctuations, while demand shocks are the main source of changes in the output gap. However, when agents maintain a higher risk aversion towards consumption with a higher slope in the Phillips curve, demand shocks also play a role in driving inflation, even though supply shocks are still the main driver of inflation. Chapter 3 emphasizes on the monetary policy with an investigation on the assumption that policymakers

commit to a Taylor rule, using a time-varying inflation-unemployment dynamic model on U.S. economy. This chapter is based on the conjecture that potential policymakers' misperception may be originated from unobserved deviations of unemployment from its natural rate. Five processes are proposed for policymakers' belief under commitment to inflation and unemployment and compare them with a baseline autoregressive process without commitment. The models are estimated using Bayesian techniques. Empirical results are as follows: First, policymakers' belief is very persistent even when it commits to a Taylor-type policy rule. Second, the run-up of U.S. inflation around 1980 can be mostly attributed to policymakers' misperception while the peak surge of inflation in 1974 is possibly a result of non-policy shocks. Third, models with commitment dominate models without commitment, especially in periods of large oscillations in inflation. In particular, when policymakers are committed to respond to a Taylor-type policy rule, the average loss function is considerably reduced over time, thus effectively lessening potential misperceptions. Chapter 4 introduces a simple version of adaptive expectation to a dynamic stochastic general equilibrium (DSGE) model to evaluate the goodness of fitness and forecasting performance on U.S. macroeconomic indicators. Analytical maximum likelihood estimation results represent a DSGE model with adaptive expectation outperforms a DSGE

model with rational expectation. In addition to providing a better fit of inflation and output gap in the U.S. Postwar macro economy, a DSGE model with adaptive expectation also leads to redundant lagged inflation in fitting inflation dynamics. Chapter 5 concludes and proposes future extension.

Ben shu lun shu le jing ji zheng ce de luo ji, jing ji fen xi dui zheng ce she ji de yi yi, fen xi le da liang hong guan yu wei guan mo xing, dong tai he jing tai wen ti, ding liang zheng ce he ding xing zheng ce wen ti deng.

This paper evaluates monetary policy-tradeoffs in low-income countries using a dynamic stochastic general equilibrium (DSGE) model estimated on data for Mozambique taking into account the sources of major exogenous shocks, and level of financial development. To our knowledge this is a first attempt at estimating a DSGE model for Sub-Saharan Africa excluding South Africa. Our simulations suggests that a exchange rate peg is significantly less successful than inflation targeting at stabilizing the real economy due to higher interest rate volatility, as in the literature for industrial countries and emerging markets.

Global crises are very rare events. After the Great Depression and the Great Stagflation, new macroeconomic paradigms associated with a new policy regime emerged. This book addresses how some macroeconomic ideas have failed, and examines which theories researchers should preserve and develop. It questions

how the field of economics Ð still reeling from the global financial crisis initiated in the summer of 2007 Ð will respond. The contributors, nine highly-renowned macroeconomists, highlight the virtues of eclectic macroeconomics over an authoritarian normative approach, and illustrate that macroeconomic reasoning can still be a useful tool for carrying out practical policy analysis. As for emerging research programmes, their wide-ranging chapters remind us that there are positive approaches to and reasons to believe in old-fashioned macroeconomics. This challenging and thought-provoking book will prove a stimulating read for researchers, academics and students of economics, as well as for professional economists.

Macroeconomics is evolving in an almost dialectic fashion. The latest evolution is the development of a new synthesis that combines insights of new classical, new Keynesian and real business cycle traditions into a dynamic, stochastic general equilibrium (DSGE) model that serves as a foundation for thinking about macro policy. That new synthesis has opened up the door to a new antithesis, which is being driven by advances in computing power and analytic techniques. This new synthesis is coalescing around developments in complexity theory, automated general to specific econometric modeling, agent-based models, and non-linear and statistical dynamical models. This book thus provides the reader with an

introduction to what might be called a Post Walrasian research program that is developing as the antithesis of the Walrasian DSGE synthesis.

The three chapters in this dissertation analyze the unconventional monetary policy tools that were utilized in response to the global financial crisis of 2007-2009. Chapter 1 examines the degree of misspecification in a mainstream DSGE model with unconventional monetary policy using the DSGE-VAR approach. The findings indicate that this type of model exhibits a high level of misspecification. For instance, estimation results point to the data favoring an unrestricted vector autoregression model over a DSGE model with unconventional monetary policy. Thus, policymakers should exercise caution when using new macroeconomic models that incorporate unconventional monetary policy. Chapter 2 examines the link between expectations formation and the effectiveness of central bank forward guidance. In a standard New Keynesian model, agents form expectations about future macroeconomic variables via either the standard rational expectations hypothesis or a more plausible theory of expectations formation called adaptive learning. The results show that the efficacy of forward guidance depends on the manner in which agents form their expectations. During an economic crisis (e.g. a recession), for example, the assumption of rational expectations overstates the effects of

forward guidance relative to adaptive learning. Specifically, the output gap is higher under rational expectations than adaptive learning. Thus, if monetary policy is based on a model with rational expectations, which is the standard assumption in the macroeconomic literature, the results of forward guidance could be potentially misleading. Chapter 3 investigates the effectiveness of forward guidance while relaxing two standard macroeconomic assumptions: rational expectations and frictionless financial markets. A standard DSGE model is extended to include the financial accelerator mechanism. The results show that the addition of financial frictions amplifies the differences between rational expectations and adaptive learning to forward guidance. During a period of economic crisis (e.g. a recession), output under rational expectations displays more favorable responses to forward guidance than under adaptive learning. These differences are exacerbated when compared to a similar analysis without financial frictions. Thus, monetary policymakers should consider the way in which expectations and credit market frictions are modeled when examining the effects of forward guidance.

At the forefront of macroeconomic research on the causes of the Great Financial Cri- sis (GFC) was and still is the usage of dynamic stochastic general equilibrium (DSGE) models. To capture the nonlinearities of the GFC, these

models were enriched with a variety of financial frictions. This paper focuses on a special subset of these frictions, the shadow banking system. We provide a structured review of the strand of literature that considers shadow banking in DSGE setups and draw particular attention to the mod- eling approach as well as impact of shadow banking. Our analysis allows the following conclusions: firstly, models featuring shadow banking are better able to simulate realistic movements in the business cycle that are of comparable magnitude to the GFC. Secondly, the models consider amplification channels between the financial sector and the real econ- omy that proved to be of importance during the crisis. Thirdly, the models display a good explanatory power of financial stability measures in the light of shadow banking.

This book arose from our conviction that the NNS-DSGE approach to the analysis of aggregate market outcomes is fundamentally flawed. The practice of overcoming the SMD result by recurring to a fictitious RA leads to insurmountable methodological problems and lies at the root of DSGE models' failure to satisfactorily explain real world features, like exchange rate and banking crises, bubbles and herding in financial markets, swings in the sentiment of consumers and entrepreneurs, asymmetries and persistence in aggregate variables, and so on. At odds with this view, our critique rests on the premise that any modern macroeconomy should be modeled instead as a complex system of heterogeneous interacting individuals, acting adaptively and autonomously according to simple and empirically validated rules of

thumb. We call our proposed approach Bottom-up Adaptive Macroeconomics (BAM). The reason why we claim that the contents of this book can be inscribed in the realm of macroeconomics is threefold: i) We are looking for a framework that helps us to think coherently about the interrelationships among two or more markets. In what follows, in particular, three markets will be considered: the markets for goods, labor and loanable funds. In this respect, real time matters: what happens in one market depends on what has happened, on what is happening, or on what will happen in other markets. This implies that intertemporal coordination issues cannot be ignored. ii) Eventually, it's all about prices and quantities. However, we are mostly interested in aggregate prices and quantities, that is indexes built from the dispersed outcomes of the decentralized transactions of a large population of heterogeneous individuals. Each individual acts purposefully, but she knows anything about the levels of prices and quantities which clear markets in the aggregate. iii) In the hope of being allowed to purport scientific claims, BAM relies on the assumption that individual purposeful behaviours aggregates into regularities. Macro behaviour, however, can depart radically from what the individual units are trying to accomplish. It is in this sense that aggregate outcomes emerge from individual actions and interactions.

This book offers an introductory step-by-step course in Dynamic Stochastic General Equilibrium (DSGE) modelling. Modern macroeconomic analysis is increasingly concerned with the construction, calibration and/or estimation and simulation of DSGE models. The book is intended for graduate students as an introductory course to DSGE modelling and for those economists who would like a hands-on approach to learning the basics of modern dynamic macroeconomic modelling. The book starts with the simplest canonical neoclassical DSGE

model and then gradually extends the basic framework incorporating a variety of additional features, such as consumption habit formation, investment adjustment cost, investment-specific technological change, taxes, public capital, household production, non-ricardian agents, monopolistic competition, etc. The book includes Dynare codes for the models developed that can be downloaded from the book's homepage. The second edition is identical to the first with the exception of a revised appendix to Chapter 2. The revised appendix can be downloaded free of charge in the accompanying downloads section.

This book explores the US economy from 1960 to 2010 using a more Keynsian, Cowles model approach, which the author argues has substantial advantages over the vector autoregression (VAR) and dynamic stochastic general equilibrium (DSGE) models used almost exclusively today. Heim presents a robust argument in favor of the Cowles model as an answer to the pressing, unresolved methodological question of how to accurately model the macroeconomy so that policymakers can reliably use these models to assist their decision making. Thirty-eight behavioral equations, describing determinants of variables such as consumption, taxes, and government spending, are connected by eighteen identities to construct a comprehensive model of the real US economy that Heim then tests across four different time periods to ensure that results are consistent. This comprehensive demonstration of the value of a long-ignored model provides overwhelming evidence that the more Keynesian (Cowles) structural models outperform VAR and DSGE, and therefore should be the models of choice in future macroeconomic studies.

Dynamic factor models and dynamic stochastic general equilibrium (DSGE) models are widely used for empirical research in macroeconomics. The empirical factor literature argues that the

co-movement of large panels of macroeconomic and financial data can be captured by relatively few common unobserved factors. Similarly, the dynamics in DSGE models are often governed by a handful of state variables and exogenous processes such as preference and/or technology shocks. Boivin and Giannoni(2006) combine a DSGE and a factor model into a data-rich DSGE model, in which DSGE states are factors and factor dynamics are subject to DSGE model implied restrictions. We compare a data-richDSGE model with a standard New Keynesian core to an empirical dynamic factor model by estimating both on a rich panel of U.S. macroeconomic and financial data compiled by Stock and Watson (2008).We find that the spaces spanned by the empirical factors and by the data-rich DSGE model states are very close. This proximity allows us to propagate monetary policy and technology innovations in an otherwise non-structural dynamic factor model to obtain predictions for many more series than just a handful of traditional macro variables, including measures of real activity, price indices, labor market indicators, interest rate spreads, money and credit stocks, and exchange rates. This book summarizes the evolution of modern macroeconomics (New Consensus Macroeconomics, NCM) and proposes a new approach to theoretical and empirical analysis, which is based on a recently developed dynamic stochastic general equilibrium (DSGE) model. Dynamic macroeconomic analysis in emerging market economies is challenging, and of growing importance in the global economy, where emerging markets are becoming more and more influential. Clearly, a deeper understanding of the inner workings of emerging economies, particularly with respect to their socioeconomic structure and the urbanization process, is needed. The book’s extends the NCM/DSGE model to better account for significant economic and social features in emerging market economies. In particular, household heterogeneities

and social stratification are explicitly incorporated into the framework proposed here, substantially enhancing the comprehensiveness of the model economy, and allowing it to better account for underlying social structure in emerging economies. Furthermore, financial and housing markets have not been considered sufficiently in either the advanced or emerging economy literature, an oversight this book remedies. As such, it makes an original and valuable contribution to the field, and a direction for future research.

The book covers problems relating to international macroeconomics and international finance. The first part develops new approaches to exchange rate modeling. The second part is a collection of papers on the theory and empirical analysis of monetary unions. The third part contains criticism of the mainstream macroeconomic models and proposes alternative modeling approaches.

Recently there has been an increasing awareness on the role that the banking sector can play in macroeconomic activity, especially within the context of the DSGE literature. In this work, we present a DSGE model with financial intermediation as in Gertler and Karadi (2011). The estimation of the shocks and of the structural parameters shows that time-variation can be crucial in the empirical analysis. As DSGE modeling fails to take into account inherent nonlinearities of the economy, we introduce a novel time-varying coefficient state-space estimation method for VAR processes, for homoskedastic and heteroskedastic error structures (TVP-VAR). We conduct an extensive empirical exercise to compare the out-of-sample forecastability of the DSGE model versus standard ARs, VARs, Bayesian VARs and TVP-VARs. We find that the TVP-VAR provides the best forecasting performance for the series of GDP and net worth of financial intermediaries for all steps-ahead, while the DSGE model with

the incorporation of a banking sector outperforms the other specifications in forecasting inflation and the federal funds rate at shorter horizons.

This book looks 'behind the model' to show how formal models of the economy work - and why they sometimes fail.

The thought-provoking book presents alternative viewpoints to mainstream macroeconomic theory, questions conventional policy wisdom and suggests a systematic re-orientation of current macroeconomic and financial regulatory policies in India. The New Consensus Macroeconomics (NCM), which established itself in the 1980s as mainstream macroeconomics, essentially represents an “uneasy truce” between two dominant schools of economic thought viz. New Classical and Neo-Keynesian economics. The NCM sets the tone for much of the macroeconomic (especially monetary) policy followed by the advanced economies in the period of the Great Moderation (1990–2005). The recent global crisis has posed a major challenge to the NCM as empirical models based on the NCM failed to anticipate the occurrence of the crisis and later its extent and severity. The above considerations constitute the underpinnings of this book, which addresses the theoretical controversies within a general context and their policy implications for India. The authors’ analysis leads to a somewhat critical assessment of the financial sector policies followed in India since the

initiation of reforms in 1991. This makes the book a valuable resource not only for researchers working in this area, but also for policy makers.

This comprehensive Handbook presents the current state of art in the theory and methodology of macroeconomic data analysis. It is intended as a reference for graduate students and researchers interested in exploring new methodologies, but can also be employed as a graduate text. The Handbook concentrates on the most important issues, models and techniques for research in macroeconomics, and highlights the core methodologies and their empirical application in an accessible manner. Each chapter is largely self-contained, whilst the comprehensive introduction provides an overview of the key statistical concepts and methods. All of the chapters include the essential references for each topic and provide a sound guide for further reading. Topics covered include unit roots, non-linearities and structural breaks, time aggregation, forecasting, the Kalman filter, generalised method of moments, maximum likelihood and Bayesian estimation, vector autoregressive, dynamic stochastic general equilibrium and dynamic panel models. Presenting the most important models and techniques for empirical research, this Handbook will appeal to students, researchers and academics working in empirical macro and econometrics.

This paper surveys dynamic stochastic general equilibrium models with financial

frictions in use by central banks and discusses priorities for future development of such models for the purpose of monetary and financial stability analysis. It highlights the need to develop macrofinancial models which allow analysis of the macroeconomic effects of macroprudential policy tools and to evaluate elements of the Basel III reforms as a priority. The paper also reviews the main approaches to introducing financial frictions into general equilibrium models.

Beginning with the practices of and the problems faced by model builders, this book discusses the modeling process and the testing of models.