

ANU COLLEGE OF BUSINESS & ECONOMICS

Welcome: In Summary



Welcome to edition twelve of the CAMA Newsletter.

Several changes have occurred in CAMA since the last edition of this newsletter. Professor Shaun Vahey, has stepped out of the role of CAMA Director to focus on a new international research collaboration. Associate Professor Renée Fry has assumed the role of CAMA Director. We would like to take this opportunity to thank Shaun for his contribution during his Directorship. His contribution has been substantial, particularly in relation to the formation of the CAMA Reserve Bank of Australia (RBA) Shadow Board which aims to quantify the uncertainly that policy makers face surrounding Australian cash rate decisions. Over the next few months we will undertake a review of the CAMA programs. Please feel free to forward any suggestions about what works, what doesn't or what you would like to see happen.

We would like to thank those CAMA members for their input into this issue, this year our goal is to increase this level of communication across the network. As part of our communication strategy we are also including a new section: CAMA in the Media. Please refer to page two. If you would like your media appearances included in this section, please forward them to Rossana Bastos-Pinto in the administration area.

CAMA members are actively contributing to the working paper series, with 20 new papers uploaded since the last newsletter. At the time of print we have 24 new publications to report. We would like to thank those that provided input regarding the publication news.

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Staff News

Congratulations to **Assoc Prof. Renée Fry** who has taken up the role of the new CAMA Director. Renee is also the Program Co-Director of the Finance and Macroeconomy Program within CAMA. Renee was previously the Deputy Director of CAMA so comes with a wealth of experience into her new role as Director, we look forward to the new directions Renée has in store for CAMA.

Professor Richard Dennis is the new Program Director of the Macro-econometric Models and Methods program, taking over from Professor Heather Anderson and Professor Don Harding. Richard has spent the last decade working for the Federal Reserve Bank of San Francisco and is currently Professor of Economics at the Australian National University. Richard's primary areas of interest relate to macro-modelling and monetary policy design. In particular, Richard has researched and published extensively on optimal policy design and time-consistency in relation to the conduct of monetary policy. In addition, Richard has published on timeless perspective policymaking, on robust decision making, and has worked on the issue of multiple equilibria in discretionary policy settings. Recent publications have appeared in the Journal of Monetary Economics, Journal of Economic Dynamics and Control, and the Journal of Money, Credit, and Banking. Our thanks extend to Heather and Don for their input into their program. They have made an immense contribution to the success of CAMA and they continue as research associates in the program.

We also would like to welcome **Assoc Prof Ippei Fujiwara** (Crawford School of Economics and Government) as the new Program Director of Multi-Country Models and Methods program. Ippei graduated from the University Oxford. He worked at the Bank of Japan from 1993 to 2011 and he started at the ANU in 2011. Ippei is Associate Editor of Japan and the World Economy, Research Associate at the Federal Reserve Bank of Dallas, Fellow at Euro Area Business Cycle Network and Guest Editor of Journal of Economic Dynamics Control. Ippei's research interests are in the area of International Finance, Monetary Economics and Applied Econometrics. His recent publications are in Journal of International Money and Finance, Journal of Money, Credit and Banking, and Journal of Economic Dynamics and Control.



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Other News

Dr William Coleman (Macroeconomic Policy Frameworks) has been awarded the 2012 Oliver Smithies Lectureship and Visiting Fellowship of Balliol College, University of Oxford. The Fellowship is a benefaction from Professor Oliver Smithies, joint winner of the 2007 Nobel Prize for Medicine. The short-term Visiting Lectureship is available to distinguished academics. William Coleman's research program entitled "The Strange Birth of Neoliberalism" explained the genesis and development of 'neo-liberal' economic thought in the post War world.

Associate Professor Ippei Fujiwara (Multi-Country Models and Methods) edited a special volume "Frontiers in Structural Macroeconomic Modeling" in the <u>Journal of Economic Dynamics and Control</u>. This volume is to celebrate two seminal papers in structural macroeconomic modeling: `Macroeconomics and Reality' published by Christopher Sims (Nobel Prize Winner 2011) in Econometrica: `Nominal Rigidities and the Dynamic Effects of a Shock to Monetary Policy' by Lawrence Christiano, Martin Eichenbaum and Charles Evans in Journal of Political Economy. The volume contains 10 papers presented at the conference held on January 23-24 2010 at Hitotsubashi University in Tokyo, where Lawrence Christiano, Martin Eichenbaum and Christopher Sims gave the keynote speeches.

Congratulations to **Professor James Morley (Finance and the Macroeconomy Program and Macroeconometric Models and Methods Program),** who was nominated president of the Society for Nonlinear Dynamics and Econometrics from July 2011 to June 2013. Professor Morley is also one of the founding members of the CAMA Shadow RBA Board. His policy recommendations have been posted online on <u>Monetary Policy Statements</u>.

Associate Professor Kalvinder Shields (Model Uncertainty and Macro-Econometrics) would like to recommend the Real Time Macroeconomic Database for Australia. This website provides a macroeconomic database for Australia which includes measures of GDP, its components, prices, and key monetary and labour market statistics over the last fifty years as published and revised in real time. The database is freely available for use and includes an introductory overview and a background for researchers. The project has been funded by the ARC (ARC DP0988112).

CAMA in the Media

Professor Bruce Chapman (Macroeconomics and Longer Run Issues)

The top 50 most influential in education 8 February 2012
The Australian

Professor Sherrill Shaffer (Finance and the Macroeconomy)

Eurobonds are likely to increase the risk of joint defaults in the Eurozone 8 December 2011 VOXEU

Professor Sherrill Shaffer (Finance and the Macroeconomy)

Secret Fed Loans Gave Banks \$13 Billion Undisclosed to Congress Protecting TARP
28 November 2011
Bloomberg

Professor Bruce Chapman (Macroeconomics and Longer Run Issues)

Hooray for HECS: Chapman makes the case 25 November 2011 The Australian

Future Events

Macroeconomic Workshop - 13 March 2012

CAMA Workshop on "Issues in Monetary and Fiscal Policy After the Global Financial Crisis", on Tuesday, 13 March 2012, Allan Barton Forum, 2nd floor, CBE Building, ANU, Canberra

For more information, please visit the CAMA webpage



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Climate Change Workshop - 14 March 2012

This event is being hosted by the Centre for Climate and Policy at the ANU Crawford School of Economics and Government in conjunction with the Climate Change and Energy group of CAMA. The workshop is by invitation with a public forum to follow in the evening. Speakers include;

Professor Peter Wilcoxen, Syracuse University, (Multi-Country Models and Methods and Climate Change and Energy)

Dr Adele Morris, Brookings Institution, (Climate Change and Energy)

Professor Warwick McKibbin, ANU (Climate Change and Energy, Macroeconomics and Longer Run Issues, and Multi-Country Models and Methods Programs)

Understanding Commodity Prices – 25 March 2012

The Money, Macro and Finance Research Group at the Bank of England and CAMA are organising a one-day workshop on issues related to commodity and energy prices. Papers cover the determinants, the effects of increasing financialisation, commodities and energy in macroeconomic models, or indeed any subject relating to the title.

VUW Macro Workshop

The second VUW Macro Workshop co-sponsored by CAMA and RBNZ will be held later in the year. The Keynote speaker will be Professor Charles Engel, University of Wisconsin at Madison. More information will appear in a later issues of the newsletter or online.

Report on recent events

First VUW Macro Workshop

The First VUW Macro Workshop, co-funded by CAMA, was held on October 21, 2011. The goal of the workshop was to contribute towards stimulating collaborative research in macroeconomics in the region. The workshop attracted nearly twice as many submissions as we had time-slots, including our two keynote speakers, Professor James Morley of UNSW and Professor Mark Weder of the University of Adelaide. The workshop generated lively discussion and was considered very successful by many of the participants. The program of the 2011 Workshop can be found online at https://sites.google.com/site/vuwmacroworkshop2011/2011program

VAR Modelling Course and Workshop 2012

In late February, The Finance and the Macroeconomy Program of CAMA and the School of Economics at the University of Tasmania ran a four day event consisting of a two day course on vector autoregression (VAR) modelling by **Professor Adrian Pagan**, followed by a two day workshop on the same topic. The format was very successful, with Professor Pagan providing a broad overview of the state of the VAR literature which participants were then able to absorb and see applied in research by the various paper presenters. It was certainly a brave set of presenters knowing that everyone in the audience was up to date with the latest developments in the literature, but the quality of critical feedback was greatly enhanced by this format.

Publication News



If you have a publication that you would like to report in this section of future editions of the newsletter, please email the details to Rossana Bastos Pinto at cama.admin@anu.edu.au.

Dr Martin Berka of the Finance and the Macroeconomy Program:

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- With MJ Crucini and C-W Wang, "International Risk Sharing and Commodity Prices". Forthcoming in Canadian Journal of Economics. [CAMA Working Paper 34/2011]
- •With M Devereux and C Engel, "Real exchange rate adjustment in and out of the Eurozone". Forthcoming in the American Economic Review.
- **DR Emmanuel De Veirman** of Finance and the Macroeconomy Program:
- With A Dunstan, "Debt Dynamics and the Relation Between Consumption and Transitory Wealth Changes". Forthcoming in the Economic Record.

Dr Rochele Edge of the Macroeconomic Models and Methods Program:

• With J B Rudd, "General Equilibrium Effects of Investment Tax Credits". Journal of Monetary Economics, 58 (2011), Issue 6-8, 537-680. [CAMA Working Paper 4/2010]

Assoc Prof Renee Fry of Finance and the Macroeconomy Program:

• With A Pagam, "Sign Restrictions in Structural Vector Autoregressions: A Critical Review," Journal of Economic Literature, American Economic Association, (2011), vol 49(4), 938-60. [CAMA Working Paper 22/2010]

Assoc Prof Jan P.A.M. Jacobs of Finance and the Macroeconomy Program:

- With M Mink and J de Haan, "Measuring Coherence of Output Gaps with an Application to the Euro Area".
 Forthcoming in Oxford Economic Papers. [CAMA Working Paper 19/2007]
- With P W Otter and A H J den Reijer, "Information, data dimention and factor structure". Journal of Multivariate Analysis 106 (2012), 80-91. **[CAMA Working Paper 15/2011]**

Professor Raghbendra Jha of Economic Growth and Development Program

• With T Dang, "Inflation variability and the relationship between inflation and growth". Macroeconomics and Finance in Emerging Market Economies (2011). [CAMA Working Paper 8/2011]

Dr Jan Libich of Macroeconomic Policy Frameworks

- With L Lenten and P Stehlik "Policy Timing and Footballers' Incentives: Penalties Before or After Extra-time?". Forthcoming in the Journal of Sports Economics.
- With P Stehlik "Monetary Policy Facing Fiscal Indiscipline Under Generalized Timing of Actions". Forthcoming in the Journal of Institutional and Theoretical Economics [CAMA Working Paper 22/2008]
- With H Hallett "Explicit Inflation Targets, Communication, and Central Bank Independence: Friends or Foes?". Forthcoming in the Economic Change and Restructuring.

Dr Thomas Lubik of Macroeconomic Theory Program

• With W L Teo "Inventories, Inflation Dynamics and the New Keynesian Phillips Curve". Forthcoming in the European Economic Review. [CAMA Working Paper 13/2010]

Dr Roland Meeks of the Finance and the Macroeconomy Program:

• "Do credit market shocks drive output fluctuations? Evidence from corporate spreads and defaults". Journal of Economic Dynamics & Control, 36(2012), 568-584

Professor James Morley of Finance and the Macroeconomy Program and Macroeconometric Models and Methods Program

• With J Piger "The Asymmetric Business Cycle". The Review of Economics and Statistics, 94(2012), No 1, 208-221

Assoc Prof Facundo Sepulveda of Macroeconomic Theory Program

• "The cyclicality of skill acquisition: evidence from panel data". Forthcoming in AEJ:Macro.

Prof Sherrill Shaffer of the Finance and the Macroeconomy Program:

• With K Coatney, D Menkhauns "Auction Prices, Market Share, and a Common Agent" .Journal of Economic Behavior and Organization, 81(2011), 61-73

Assoc Prof Rodney Strachan of the Model Uncertainty and Macro-Econometrics Program:

- With J Chan, G Koop and R Leon-Gonzales, "Time Varying Dimension Models". Forthcoming in Journal of Business and Economic Statistics.
- With G Koop and R Leon-Gonzales, "A Reversible Jump algorithm for inference using instrumental variables". Forthcoming in Journal of Econometrics.
- With G Koop and R Leon-Gonzales, "Bayesian Inference in the Time Varying Cointegration Model", The Journal of Econometrics 165 (2011), 210-220.

Book Chapter

Professor Bruce Chapman of Macroeconomics and Longer Run Issues

- "The Australian University Student Financing System: The Rationale for, and Experience with Income Contingent Loans" in Shiro Armstrong and Bruce Chapman (eds) (2011) Financing Higher Education and Economic Development in East Asia, ANU E-press, Canberra: 83-106
- "Thailand's Student Loan Fund: An Analysis of Interest Rate Subsidies and Repayment Hardships" (with Kiatanantha Lounkaew, Piruna Polsiri, Rangsit Sarachitti, and Thitima Sitthipongpanich) in Shiro Armstrong and Bruce Chapman



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(eds) (2011) Financing Higher Education and Economic Development in East Asia, ANU E-press, Canberra: 221-245.

• "Income Contingent Student Loans for Thailand: Alternatives Compared" (with Kiatanantha Lounkaew), in Shiro Armstrong and Bruce Chapman (eds) (2011) Financing Higher Education and Economic Development in East Asia, ANU E-press, Canberra: 245-281.

Book

Professor Bruce Chapman of Macroeconomics and Longer Run Issues

• Financing Higher Education and Economic Development in East Asia, Shiro Armstrong and Bruce Chapman (eds) ANU Epress, Canberra, 2011.

Professor Gerard Carprio of Finance and the Macroeconomy

• The Guardians of Finance: Making Regulators Work for Us, with James Barth and Ross Levine, MIT Press, 2012

New Research Associates



We are delighted to welcome our newest Research Associates to the following CAMA programs:

Behavioral Macroeconomics

Mikhail Anufriev, Economics Discipline Group, University of Technology, Sydney

Climate Change and Energy

R Quentin Grafton, Crawford School of Economics and Government, ANU

Globalization and Trade

Martin H Davies, Department of Economics, Washington and Lee University

Economic Growth and Development

Pierre-Richard Agenor, The University of Manchester

Macro-econometric Models and Methods

Michael McMahon, Department of Economics, University of Warwick

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Yasuo Hirose, Faculty of Economics, Keio University

Macroeconomic Theory

Martin Bodenstein, Economics and Research Department, Asian Development Bank

Finance and the Macroeconomy

Leo Krippner, Reserve Bank of New Zealand

Stefano d'Addona, Department of International Studies, University of Rome 3

Faruk Balli, School of Economics and Finance, Massey University

Victor Pontines, Research and Training Centre, The South East Asian Central Banks

Tugrul Vehbi, Macroeconomic, International and Economic Research, New Zealand Treasury

CAMA welcomes new research associates. Applications can be sent to program directors with a CV and statement of interest in their chosen program.

New Doctoral Associates

Finance and the Macroeconomy

Ms Sumila Wanaguru

Visitors to CAMA @ ANU



Recent Visitors to CAMA include:

Dr Sandra Eickmeier, Deutsche Bundesbank, 14 February – 17 February 2012



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Professor Sherrill Shaffer, Universidad of Wyoming, 7 February – 27 April 2012

Professor Thomas Lubik, Federal Reserve Bank of Richmond, 12 December – 14 December 2011

Professor David Vines, University of Oxford, 28 November – 23 December 2011

CAMA Staff at ANU are looking forward to welcoming upcoming visits by:

Professor Bruce Preston, Columbia University, 13 March 2012.

Associate Professor Yasuo Hirose, Keio University, 10 March to 20 March 2012

Professor Peter Wilcoxen, Syracuse University, 10 March to 15 March 2012

Dr Adele Morris, Brookings Institute, 9 March to 13 March 2012

Dr Edda Claus, University of Melbourne, 9 March to 13 March 2012

Dr J.P.A.M (Jan) Jacobs, University of Groningen, 8 March to 14 March 2012

New Working Papers

Click on the title to download a paper.



2011

29/2011

Cyclical Changes in Firm Volatility

By DeVeirman E and Levin AT

We estimate changes in the volatility of firm-level sales, earnings and employment growth of US firms. Our method differs from existing measures for firm-level sales and employment volatility in that it not only captures longer-run

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changes in volatility, but also measures cyclical changes in firm volatility. We detect substantial cyclical variation in firm-specific volatility around trend. Firm-specific volatility was low in the early 1990s, rose in the mid- and late-1990s, and was high around 2000. Our results are consistent with the hypothesis, deduced from models with financial frictions, that rising idiosyncratic volatility before 2001 contributed to the coincident rise in the external finance premium and to the 2001 recession. Endogenous pricing models imply that price adjustment is less frequent, and disinflation more costly, when firm-specific volatility is low. Consistent with endogenous pricing models, we find that the output cost of disinflation was three times larger in the early 1990s than in the early 2000s.

30/2011

Systematic and Liquidity Risk in Subprime-Mortgage Backed Securities

By Dungey M, Dwyear G P and Flavin T

The misevaluation of risk in securitized financial products is central to understanding the Financial Crisis of 2007-2008. This paper characterizes the evolution of factors affecting collateralized debt obligations (CDOs) based on subprime mortgages. A key feature of subprime-mortgage backed indices is that they are distinct in their vintage of issuance. Using a latent factor framework that incorporates this vintage effect, we show the increasing importance of a common factor on more senior tranches during the crisis. We examine this common factor and its relationship with spreads. We estimate the effects on the common factor of the financial crisis.

31/2011

<u>Climbing the electricity ladder generates carbon Kuznets curve downturns</u>

By Burke PJ

This paper examines why some countries have experienced environmental Kuznets curve (EKC)-type reductions in carbon dioxide (CO2) emissions, while others have not. The hypothesis that climbing to the upper rungs of the electricity ladder (nuclear power and modern renewables) has been the primary mechanism via which countries have achieved substantial reductions in per capita CO2 emissions is tested using a binomial dependent variable modelling approach for a sample of 105 countries. The findings suggest that electricity mix transitions caused by long-run growth in per capita incomes are indeed the primary determinant of Kuznets curve downturns. The paper explores additional mechanisms via which carbon Kuznets curves may have been generated, but the results indicate that these are of lesser overall importance than the electricity mix effect. The evidence also suggests that countries with larger fossil fuel endowments are less likely to experience carbon Kuznets curve downturns. an additional curse of natural resources.

32/2011

Sectoral Productivity, Structural Change and Convergence By Stegman A

The concept of convergence, defined either narrowly, through productivity or income per capita, or broadly, across a range of economic variables, has become fundamental to the way we



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assess, analyse and project economic growth in developing economies. To the extent that economic growth projections are designed to reflect empirical behaviour, there is a need to identify relationships between and within key projection variables. To date the empirical analysis of convergence has been controversial. There is a strong argument that economic growth should be projection at a detailed sectoral level (see McKibbin et al (2009)). In practice, data limitations mean that industry level relationships are difficult to uncover and macroeconomic aggregate behaviours are often imposed on disaggregated data. The analysis in this paper attempts to uncover the key cross country trends in sectoral level productivity data. Whilst productivity convergence is evident in some sectors, generally service sectors, it is not evident in others. In part, aggregate convergence trends across developed economies appear to be driven by structural change. We generalise this result and argue that a combination of convergence and structural development assumptions could improve the empirical relevance of economic growth projection models.

33/2011

<u>Carry Trades and Financial Crisis: An Analytical Perspective</u>
By Wanaguru S T

This paper develops an analytical framework to explain how a liquidity shock or a shock to the aggregate haircut on collateralized assets amplifies financial crisis in a carry trade recipient country. The model allows roles for shocks to the size of a haircut, strategic behaviour across currency carry traders and the feed-back effect between asset prices and exchange rates. The paper finds that there is a threshold level of the aggregate haircut at the equilibrium. After introducing small exogenous noise, the model shows that a liquidity shock leads asset prices and the exchange rate to depart from the steady state level, triggering a financial crisis. Further, a negative shock to the interest rate differential also has the potential to trigger a liquidity crisis in the domestic market and amplify a financial crisis in the carry trade recipient country. A possible policy implication suggests that keeping policy rates low entails risks for financial systems. Therefore, instead of low interest rates and foreign exchange intervention policies, monetary authorities should focus on introducing macro-prudential regulations and establishing a sustainable and effective financial architecture to prevent future financial crisis.

34/2011

International Risk Sharing and Commodity Prices
By Berka M, Crucini M J and Wang C-W

35/2011

Enter the Dragon: Interactions between Chinese, US and Asia-Pacific Equity Markets, 1995-2010

By Burdekin R C K and Siklos P

This paper applies a variety of short-run and long-run time series techniques to data on a broad group of Asia-Pacific stock markets and the United States extending to 2010. Our empirical work confirms the importance of crises in affecting the persistence of equity returns in the Asia-Pacific region and offers some support for contagion effects. Post-Asian financial

crisis quantile regressions yield substantial evidence of longrun linkages between the Shanghai market, the US market and many regional exchanges. Cointegration is particularly prevalent at the higher end of the distribution. Our results suggest that the enormous growth of the Shanghai market in the new millennium has been accompanied by a meaningful level of integration with other regional and world markets in spite of ongoing capital controls.

38/2011

The Financial Accelerator and Monetary Policy Rules By Kamber G and Thoenissen C

The ability of financial frictions to amplify the output response of monetary policy, as in the financial accelerator model of Bernanke et al. (1999), is analysed for a wider class of policy rules where the policy interest rate responds to both inflation and the output gap. When policy makers respond to the output gap as well as inflation, the standard financial accelerator model reacts less to an interest rate shock than does a comparable model without an operational financial accelerator mechanism. In recessions, when firm-specific volatility rises, financial acceleration due to financial frictions is further reduced, even under pure inflation targeting.

2012

1/2012

Identifying New Shocks with Forecast Data
By Hirose Y and Kurozumi T

Recent studies attempt to quantify the empirical importance of news shocks (ie., anticipated future shocks) in business cycle fluctuations. This paper identifies news shocks in a dynamic stochastic general equilibrium model estimated with not only actual data but also forecast data. The estimation results show new empirical evidence that anticipated future technology shocks are the most important driving force of U.S. business cycles. The use of the forecast data makes the anticipated shocks play a much more important role in fitting model-implied expectations to this data, since such shocks have persistent effects on the expectations and thereby help to replicate the observed persistence of the forecasts.

2/2012

The Household Effects of Government Spending By Giavazzi F and McMahon M

This paper provides new evidence on the effects of fiscal policy by studying, using household-level data, how households respond to shifts in government spending. Our identification strategy allows us to control for time-specific aggregate effects, such as the stance of monetary policy or the U.S.-wide business cycle. However, it potentially prevents us from estimating the wealth effects associated with a shift in spending. We find significant heterogeneity in households' response to a spending shock; the effects appear vary over time depending, among other factors, on the state of business cycle and, at a lower frequency, on the composition of employment (such as the share of workers in part-time jobs). Shifts in spending could also have important distributional effects that are lost when estimating an aggregate multiplier.

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Heads of households working relatively few (weekly) hours, for instance, suffer from a spending shock of the type we analyzed: their consumption falls, their hours increase and their real wages fall.

3/2012

Evidence on a DSGE Business Cycle model subject to Neutral and Investment-Specific Technology Shocks using Bayesian Model Averaging

By Strachan R W and VanDijk H K

The empirical support for a DSGE type of real business cycle model with two technology shocks is evaluated using a Bayesian model averaging procedure that makes use of a finite mixture of many models within the class of vector autoregressive (VAR) processes. The linear VAR model is extended to permit equilibrium restrictions and restrictions on long-run responses to technology shocks apart from having a range of lag structures and deterministic processes. These model features are weighted as posterior probabilities and computed using MCMC and analytical methods. Uncertainty exists as to the most appropriate model for our data, with five models receiving significant support. The model set used has substantial implications for the results obtained. We do find support for a number of features implied by the real business cycle model. Business cycle volatility seems more due to investment specific technology shocks than neutral technology shocks and this result is robust to model specification. These techonolgy schocks appear to account for all stochastic trends in our system after 1984. We provide evidence on the uncertainty bands associated with these results.

4/2012

<u>How Should We Bank With Foreigners? An Empirical Assessment of Lending Behaviour of International Banks to Six East Asian Countries</u>

By Pontines V and Siregar R Y

The possible crucial role of international bank lending in the transmission of adverse economic disturbance from advanced economies to emerging economies in the recent global financial crisis has once again placed this type of capital flows into sharper scrutiny both in academic and policy discussions. We construct macro-and micro-panel data on international bank lending to six Asian economies, viz., Indonesia, Korea, Malaysia, Philippines, Singapore and Thailand, to analyze a number of objectives. We first examine the influence of a number of critical determinants not only to overall international bank lending but also to cross-border bank lending, and obtained one critical finding in this part of the study that crossborder lending by international banks tend to pull-out from host economies during difficult times in source economies, whereas such retrenchment are not evident on an aggregated basis. This may suggest that encouraging brick-and-mortar affiliates of international banks to 'set up shop' in recipient economies may be the judicious choice for these economies. We next critically examine the difference between subsidiaries and branches of international banks in terms of their ability to shield themselves from the financial difficulties of their global parent banks and thus their ability to continue lending in destination markets. According to our results, foreign bank subsidiaries are more capable in this regard. This finding carries with it the obvious attraction of favouring an organizational banking structure that is biased towards subsidiaries. However,

national banking regulators should remember that apart from encouraging a host of other domestic and cross-border initiatives, encouraging the entry of brick-and mortar subsidiaries of international banks should not viewed as a panacea to the financial stability concerns not only in Asia but also across emerging markets in general.

5/2012

Modifying Gaussian term structure models when interest rates are near the zero lower bound

(Revised version of CAMA Working Paper 36/2011) By Kripner L

With nominal interest rates near the zero lower bound (ZLB) in many major economies, it has become untenable to apply Gaussian affine term structure models (GATSMs) while ignoring their inherent theoretical deficiency of non-zero probabilities of negative interest rates. In this article I propose correcting that deficiency by adjusting the entire GATSM term structure with an explicit function of maturity that represents the optionality associated with the present and future availability of physical currency. The resulting ZLB-GATSM framework remains tractable, producing a simple closed-form analytic expression for forward rates and requiring only elementary univariate numerical integration (over time to maturity) to obtain interest rates and bond prices. I demonstrate the salient features of the ZLB-GATSM framework using a two-factor model. An illustrative application to U.S. term structure data indicates that movements in the state variables have been consistent with unconventional monetary policy easings undertaken after the U.S. policy rate reached the ZLB in late 2008.

6/2012

<u>Demographic Dividends, Dependencies and Economic Growth in China and India</u>

By Golley J and Tyers R

The world's two population giants have undergone significant, and significantly different, demographic transitions since the 1950s. The demographic dividends associated with these transitions during the first three decades of this century are examined using a global economic model that incorporates full demographic behavior and measures of dependency that reflect the actual number of workers to non-workers, rather than the number of working aged to non-working aged. While much of China's demographic dividend now lies in the past. alternative assumptions about future trends in fertility and labor force participation rates are used to demonstrate that China will not necessarily enter a period of "demographic taxation" for at least another decade, if not longer. In contrast with China, much of India's potential demographic dividend lies in waiting for the decades ahead, with the extent and duration depending critically on a range of policy choices.

7/2012

Modelling Breaks and Clusters in the Steady States of Macroeconomic Variables

By Chan J C C and Koop G

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Macroeconomists working with multivariate models typically face uncertainty over which (if any) of their variables have long run steady states which are subject to breaks. Furthermore, the nature of the break process is often unknown. In this paper, we draw on methods from the Bayesian clustering literature to develop an econometric methodology which: i) finds groups of variables which have the same number of breaks; and ii) determines the nature of the break process within each group. We present an application involving a five-variate steady-state VAR.

8/2012

A New Model of Trend Inflation

By Chan J C C, Koop G and Potter S M

This paper introduces a new model of trend (or underlying) inflation. In contrast to many earlier approaches, which allow for trend inflation to evolve according to a random walk, ours is a bounded model which ensures that trend inflation is constrained to lie in an interval. The bounds of this interval can either be fixed or estimated from the data. Our model also allows for a time-varying degree of persistence in the transitory component of inflation. The bounds placed on trend inflation mean that standard econometric methods for estimating linear Gaussian state space models cannot be used and we develop a posterior simulation algorithm for estimating the bounded trend inflation model. In an empirical exercise with CPI inflation we find the model to work well, yielding more sensible measures of trend inflation and forecasting better than popular alternatives such as the unobserved components stochastic volatility model.

9/2012

<u>Deep Habits in the New Keynesian Phillips Curve</u> By Lubik TA and Teo WL

We derive and estimate a New Keynesian Phillips curve (NKPC) in a model where consumers are assumed to have deep habits. Habits are deep in the sense that they apply to individual consumption goods instead of aggregate consumption. This alters the NKPC in a fundamental manner as it introduces expected and contemporaneous consumption growth as well as the expected marginal value of future demand as additional driving forces for inflation dynamics. We construct the driving process in the deep habits NKPC by using the model's optimality conditions to impute time series for unobservable variables. The resulting series is considerably more volatile than unit labor cost. General Methods of Moments (GMM) estimation of the NKPC shows an improved fit and a much lower degree of indexation than in the standard NKPC. Our analysis also reveals that the crucial parameters for the performance of the deep habit NKPC are the habit parameter and the substitution elasticity between differentiated products. The results are broadly robust to alternative specifications.

10/2012

<u>Bayesian Estimation of DSGE Models</u>
By Guerron-Quintana PA and Nason JM

We survey Bayesian methods for estimating dynamic stochastic general equilibrium (DSGE) models in this article. We focus on New Keynesian (NK)DSGE models because of the interest shown in this class of models by economists in academic and policy-making institutions. This interest stems from the ability of this class of DSGE model to transmit real, nominal, and fiscal and monetary policy shocks into endogenous fluctuations at business cycle frequencies. Intuition about these propagation mechanisms is developed by reviewing the structure of a canonical NKDSGE model. Estimation and evaluation of the NKDSGE model rests on being able to detrend its optimality and equilibrium conditions, to construct a linear approximation of the model, to solve for its linear approximate decision rules, and to map from this solution into a state space model to generate Kalman filter projections. The likelihood of the linear approximate NKDSGE model is based on these projections. The projections and likelihood are useful inputs into the Metropolis-Hastings Markov chain Monte Carlo simulator that we employ to produce Bayesian estimates of the NKDSGE model. We discuss an algorithm that implements this simulator. This algorithm involves choosing priors of the NKDSGE model parameters and fixing initial conditions to start the simulator. The output of the simulator is posterior estimates of two NKDSGE models, which are summarized and compared to results in the existing literature. Given the posterior distributions, the NKDSGE models are evaluated with tools that determine which is most favored by the data. We also give a short history of DSGE model estimation as well as pointing to issues that are at the frontier of this research.

11/2012

A theoretical foundation for the Nelson and Siegel class of yield curve models

By Krippner L

Yield curve models within the popular Nelson and Siegel (hereafter NS) class are shown to arise from a formal low-order Taylor approximation to the generic Gaussian affine term structure model. That theoretical foundation provides an assurance that NS models correspond to a well-accepted framework for yield curve modeling. It further suggests that any yield curve from the GATSM class should be parsimoniously representable by an two-factor arbitrage-free NS model, which should prove useful for macro finance applications. Such a model is derived and applied to provide evidence for changes in United States yield curve dynamics pre- and post-1988.

12/2012

Global Fiscal Adjustment and Trade Rebalancing By McKibbin WJ, Stoeckel AB and Lu YY

The emergence of substantial fiscal deficits and a large build up of government debt in major advanced economies will inevitably lead to a period of fiscal consolidation in coming years. In an earlier paper, McKibbin and Stoeckel (2010) explored the effects of this fiscal adjustment in advanced economies on the global economic outlook. This paper focuses on the differences between the impacts of fiscal policy in advanced versus emerging economies. In particular, the need



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for more fiscal spending on infrastructure in emerging economies and the need for fiscal consolidation in advanced economies leads naturally to the question of what this asymmetric fiscal adjustment might do to global trade balances as well as global economic growth over the coming decades. The adjustment needed in both regions is substantial and the asymmetry of the adjustment implies important consequences for trade and capital flows between regions as well as asset price adjustments within and between regions

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