REPORT OF THE 1999

PhD CONFERENCE IN ECONOMICS AND BUSINESS

3-5 November, 1999
UWA, Perth
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Conference Convenor: Ken Clements
Conference Coordinator: Janette Barrett
THE REPORT

The 1999 PhD Conference in Economics and Business was held at the University of Western Australia in Perth from 3-5 November, 1999. It was the twelfth in this series of conferences and is a joint venture between the Economic Research Centre at the University of Western Australia and the Centre for Economic Policy Research at the Australian National University.

The objective of the PhD Conference series is to help with the training of promising doctoral students in economics and business by giving them the opportunity to gain feedback on and exposure for their research. It also enables PhD students to meet with their peers and to make contact with senior academics and researchers with similar interests. Furthermore, it acts as an informal job market in which the students can demonstrate their abilities and attract attention to their prospects.

This year 32 students presented papers, 28 from Australian universities, one from Oxford University in the UK, two from the University of Nottingham also in the UK, and one from the University of Chicago, USA. The papers covered a diverse range of topics including international finance, welfare measurement, trade and knowledge intensive industries, transport and regional economics, international trade and development, exchange rates and Bayesian econometrics, macro modelling, business, minerals and energy, and labour economics, productivity analysis, asset pricing, the economics of obesity and food consumption, Vietnam and finance. Overall, the papers were of a very high standard and all the students are to be congratulated for their efforts. We would like to extend our thanks to all the discussants whose participation and hard work contributed greatly to the success of the conference. Thank you also to their organisations for providing staff with time to attend the conference. The sessions were chaired by academics from the University of Western Australia.

As in previous years, each student was assigned a discussant who read the student's paper in advance and prepared a written set of comments. The discussants were drawn from a wide range of Australian universities as well as the Australian Taxation Office, the Department of Industry, Science and Resources and the Reserve Bank of Australia.

In addition to the students, discussants and chairpersons, the conference was attended by a number of representatives from sponsoring organisations. From the feedback received, these delegates enjoyed the conference and found it to be an interesting and worthwhile experience. We would like to thank the organisations mentioned above for providing their staff with the time to attend the conference.

The conference began with a very enjoyable barbecue on the Wednesday evening and was officially opened the following day by the Executive Dean of the Faculties of Economics & Commerce, Education and Law, Professor Paige Porter.

Professor Ron Bewley from the University of New South Wales gave this year's Invited Lecture. Professor Bewley delivered a very interesting and controversial talk on "The Economics of Lobbying and the Lobbying of Economics" which gave unique insights into aspects of business economics and consulting. The conference concluded with a dinner on the Friday evening at the Royal Perth Yacht Club that was sponsored by Harcourt Australia. Professor Stephen King from the University of Melbourne gave a very entertaining and stimulating presentation on aspects of academic life.
In keeping with tradition, a prize was awarded for the best student presentation and the best discussant. This year, the students had an additional incentive to work hard as Poynton and Partners sponsored a $1,000 prize for the best student paper in business economics. Conference attendees voted to determine the best student presentation and the best discussant. The prize for the best paper in business economics was determined by a panel from UWA.

The student presentation award went to Mr Richard Dennis from the ANU for his paper entitled "Solving for Optimal Simple Rules in Rational Expectations Models". An honourable mention was made to Ms Hsiao-chuan Chang also from the ANU for her paper entitled "Wage Dispersion, Trade, Productivity Growth and Education: A Theoretical Analysis". The prize for the best discussant went to Associate Professor Denzil Fiebig from the University of Sydney with an honourable mention to Associate Professor Vance Martin from the University of Melbourne. Ms Sibel Yelten from the University of Chicago was awarded the Poynton and Partners business economics prize for her paper entitled "Real Effects of Movements in Nominal Exchange Rates: Application to the European Monetary Union". Certificates of commendation were awarded to Ms Vivian Salim from UWA for her paper entitled "A New Approach to Scheduling Urban Road Projects" and to Mr Shiguang Ma from the University of Adelaide for his paper entitled "Tests of Weak-Form Efficiency on China's Stock Markets". Congratulations to all prize winners on a job well done.

Ms Janette Barrett was the Conference Coordinator for 1999. Janette did an outstanding job in dealing with all aspects of the arrangements and ensuring that the conference participants were well catered for. She was assisted by Dr Helal Ahammad, Mr Mert Daryal, Ms Yihui Lan, Ms Jan Smith, Dr MoonJoong Tcha, Mr Robin Wong and Dr Ye Qiang. I would like to extend my thanks to all members of the conference team.

The PhD Conference plays a unique and very important role in economic and business research. Overall, 280 students have now been involved in this conference series and I feel that it has made a major impact on graduate training in Australia and beyond.

The conference would not have been possible without the generous financial support of a number of sponsors to whom we are most grateful. On behalf of the organisers, I would like to acknowledge the assistance of the following institutions:

Acacia Resources
Academy of Social Sciences in Australia
Agricultural and Resource Economics, UWA
Alcoa of Australia
AMP Assets Management
ANZ Bank
Argyle Diamonds
Australian Agricultural & Resource Economics Society
Australian Bureau of Agricultural and Resource Economics
Australian Bureau of Statistics
Australian Capital Equity
Australian Competition and Consumer Commission
Australian Equipment Lessors Association
Australian Finance Conference
Australian National University
Australian Stock Exchange
Bankers Trust Australia
Barclays Global Investors Australia
Poynton and Partners
PPB Ashton Read
Productivity Commission
Reserve Bank of Australia
Rio Tinto
Robe River Mining
Rural Industries Research & Development Corporation
Salomon Smith Barney
Sanford Securities
Sherwood Overseas Company
Sons of Gwalia
State Street Global Advisors
Sunday Times
Sydney Futures Exchange
Vice-Chancellorcy, UWA
WA Department of Health
WA Department of Resources Development
WA Department of Treasury
WA Farmers Federation
WA Ministry of the Premier and Cabinet
Wesfarmers
West Australian Petroleum
Western Power Corporation
Westpac Banking Corporation
Woodside Offshore Petroleum

Kenneth W Clements
Conference Convenor
THE PROGRAM

Wednesday 3 November

6.30pm  Registration and Reception - BBQ at University House

Thursday 4 November

8.30 - 8.45am  Late Registration

8.45 - 9.00am  Opening Address
   Professor Paige Porter
   Executive Dean, Faculties of Economics & Commerce, Education and Law, UWA

9.00 - 10.30am  Session 1: International Finance
                  Session 2: Welfare Measurement
                  Session 3: Clubs and Cousins

10.30 - 11.00am  Tea/Coffee

11.00 - 12.30pm  Session 4: Trade and Knowledge-Intensive Industries
                  Session 5: Transport and Regional Economics

12.30 - 2.00pm  Lunch in the Sunken Garden

2.00 - 3.00pm  Invited Lecture
   Professor Ron Bewley, School of Economics, UNSW

3.00 - 3.30pm  Tea/Coffee

3.30 - 5.00pm  Session 6: International Trade and Development
                  Session 7: Exchange Rates and Bayesian Econometrics
Friday 5 November

8.45 - 10.15am  Session 8: Macro Modelling

  Session 9: Business Economics

10.15 - 10.45am  Tea/Coffee

10.45-12.15pm  Session 10: Labour Economics

  Session 11: Minerals and Energy Economics

12.15 - 2.00pm  Lunch on the Matilda Bay Foreshore

2.00 - 3.30pm  Session 12: Productivity Analysis

  Session 13: Asset Pricing

  Session 14: The Economics of Obesity and Food Consumption

3.30 - 4.00pm  Tea/Coffee

4.00 - 5.30pm  Session 15: Vietnam

  Session 16: Finance

7.00 for 7.30pm  Conference Dinner at the Royal Perth Yacht Club, Crawley Ave, Nedlands.

  Speaker: Professor Stephen King, Department of Economics, University of Melbourne
Session 1: International Finance

Chairperson: Nic Groenewold, Department of Economics, University of Western Australia

Neil Ackland, Department of Economics, University of Sydney
“Interest Rate Swaps and the Development of the International Financial System”

Sibel Yelten, Department of Economics, University of Chicago
“Real Effects of Movements in Nominal Exchange Rates: Application to the European Monetary Union”

Discussants: Geoff Kingston, School of Economics, University of New South Wales

Graham Voss, Reserve Bank of Australia

Session 2: Welfare Measurement

Chairperson: Paul Miller, Department of Economics, University of Western Australia

Robert Ackland, Department of Economics, The Faculties, Australian National University
“Two Approaches to International Comparisons of Real Income”

Adrian Hart, Department of Economics, University of Sydney

Discussants: Ranjan Ray, School of Economics, University of Tasmania

Paul Flatau, Department of Economics, Murdoch University

Session 3: Clubs and Cousins

Chairperson: MoonJoong Tcha, Department of Economics, University of Western Australia

Boyd Blackwell, Department of Economics, University of Queensland
“The Economic Theory Clubs: An Application to Surf Life Saving?”

Welshy Tupou, School of Economics, Deakin University
“Altruism in a Two-Cousin, Two-Commodity Model with a Transfer: The Effect of Meddlesome and Non-Meddlesome Preferences”

Discussants: Jeff Borland, Department of Economics, University of Melbourne

Simon Grant, Department of Economics, The Faculties, ANU
Session 4: Trade and Knowledge-Intensive Industries

Chairperson: Helal Ahammad, Economic Research Centre, University of Western Australia

Neil Foster, School of Economics, University of Nottingham
“International Trade, Knowledge Spillovers and Growth”

Hsiao-chuan Chang, Research School of Pacific and Asian Studies, ANU
“Wage Dispersion, Trade, Productivity Growth and Education: A Theoretical Analysis”

Discussants: Neil Vousden, Department of Economics, The Faculties, ANU
Deborah Cobb-Clark, NCDS and Economics Program, RSSS, ANU

Session 5: Transport and Regional Economics

Chairperson: Paul McLeod, Department of Economics, University of Western Australia

Vivian Salim, Department of Information, Management and Marketing, UWA
“A New Approach to Scheduling Urban Road Projects”

Peter Johnson, Economic Research Centre, Department of Economics, UWA
“The Impact of Major Projects on Regional Economies: The Case of HBI in the Pilbara”

Discussants: Gordon Mills, Centre for Microeconomic Policy Analysis, University of Sydney
Philip Adams, Centre of Policy Studies, Monash University

Invited Lecture

Chairperson: Bob Gregory, Economics Program, RSSS, ANU

Ron Bewley, School of Economics, University of New South Wales
“The Economics of Lobbying (and the Lobbying of Economics)”
Session 6:  International Trade and Development

Chairperson: Yanrui Wu, Department of Economics, University of Western Australia

Qing Zhang, School of Economics, University of Tasmania
“FDI and China’s Provincial Exports, Which is Cause and Which is Effect?”

Larry Digal, Department of Agricultural Economics, University of Sydney
“Market Power in the Philippine Retail Food Industry”

Discussants: Haishun Sun, Department of Industry, Science and Resources
Charles Harvie, Department of Economics, University of Wollongong
Satish Chand, Australian Taxation Office

Session 7:  Exchange Rates and Bayesian Econometrics

Chairperson: Michael McAleer, Department of Economics, University of Western Australia

Ralf Becker, School of Economics and Finance, Queensland University of Technology
“Identifying and Modelling Nonlinearities in Australian Foreign Exchange Rate Data by Means of Flexible Nonlinear Inference”

Ola Elerian, Nuffield College, University of Oxford
“A Note on the Existence of a Closed Form Conditional Transition Density for the Milstein Scheme”

Discussants: Vance Martin, Department of Economics, University of Melbourne
Bill Griffiths, School of Economic Studies, University of New England

Session 8:  Macro Modelling

Chairperson: Juerg Weber, Department of Economics, University of Western Australia

Wilai Auepiyachut, Department of Economics, University of Wollongong
“Macroeconomic Modelling of the Impact of Financial Liberalization on the Thai Economy”

Richard Dennis, Research School of Social Sciences, Australian National University
“Solving for Optimal Simple Rules in Rational Expectations Models”

Discussants: George Fane, Research School of Pacific and Asian Studies, ANU
Peter Stemp, Department of Economics, University of Melbourne
Session 9: Business Economics

Chairperson: Ken Clements, Economic Research Centre, University of Western Australia

Annette Weier, Department of Economics, Monash University
“Demutualisation in the Australian Life Insurance Industry”

Scott Savage, School of Economics and Finance, Curtin University of Technology

Discussants: Owen Covick, School of Economics, Flinders University
Joshua Gans, Melbourne Business School, University of Melbourne

Session 10: Labour Economics

Chairperson: Charles Mulvey, Department of Organisational and Labour Studies, UWA

Donella Caspersz, Department of Organisational and Labour Studies, UWA
“Labour and Export Processing Zones Style Developments in Asian Newly Industrializing Economies”

Roger Wilkins, Department of Economics, University of Melbourne
“Immigrant and Native-Born Wage Distributions in Australia: 1982-1996”

Discussants: Phil Lewis, Centre for Labour Market Research, Murdoch University
Bob Gregory, Economics Program, RSSS, ANU

Session 11: Minerals and Energy Economics

Chairperson: Ye Qiang, Economic Research Centre, University of Western Australia

Paul Crompton, Department of Economics, UWA
“Modelling the Diffusion of New Steel-Making Technology”

Muhammad Akmal, National Centre for Development Studies, Australian National University
“The Impact of a Carbon Tax on Consumer Energy Demand in Australia: An Application of a Dynamic OLS”

Discussants: Philip Maxwell, WA School of Mines, Curtin University of Technology
Denzil Fiebig, Department of Econometrics, University of Sydney
Session 12: Productivity Analysis

Chairperson: Nazrul Islam, Economic Research Centre, University of Western Australia

Xiang Kong, AGSM, Universities of Sydney and New South Wales

Alice Shiu, School of Economics, University of New South Wales
“Multilateral Comparisons of Productivity, Terms-of-Trade and Factor Accumulation: China in Context”

Discussants: Knox Lovell, Department of Economics, University of New South Wales
Harry Bloch, Department of Economics, Curtin University of Technology

Session 13: Asset Pricing

Chairperson: Radhika Lahiri, Department of Economics, University of Western Australia

Vlad Pavlov, Research School of Social Sciences, Australian National University
“Asset Pricing in a Simple OLG Economy”

Xue-Zhong He, School of Finance and Economics, University of Technology, Sydney
“Heterogeneous Beliefs, Risk and Learning in a Simple Asset Pricing Model”

Discussants: Rob Trevor, Centre for Applied Finance, Macquarie University
Doug Foster, AGSM, Universities of Sydney and New South Wales

Session 14: The Economics of Obesity and Food Consumption

Chairperson: John Taplin, Department of Information Management and Marketing, UWA

Michael Kortt, School of Economic Studies, University of New England
“An Economic Assessment of the Impact of Obesity on Medical Care Utilisation Among a Sample of the Australian Population”

Abbi Kedir, School of Economics, University of Nottingham
“Estimates of the Price Elasticity of Demand for Selected Commodities with Correction for Quality Effects and Measurement Error: The Case of Teff”

Discussants: Darrel Doessel, Department of Economics, University of Queensland
David Butler, Department of Economics, University of Western Australia

Kali Kalirajan, Australia South Asia Research Centre, ANU
Session 15: Vietnam

Chairperson: Abu Siddique, Department of Economics, University of Western Australia

Phuong Le, School of Economics, Griffith University
“Assessing Vietnam's Trade Reform in the Regional and Global Context: GTAP Model”

Thiep Van Ho, Centre of Policy Studies, Monash University

Discussants: Rod Tyers, Department of Economics, The Faculties, ANU
Tom Nguyen, School of Economics, Griffith University

Session 16: Finance

Chairperson: H Y Izan, Division of BITL, Murdoch University

Owen Guest, Department of Economics and Finance, La Trobe University
“The Time Series Properties of the SPI Futures and Implications for Financial Decisions: Some Preliminary Results”

Shiguang Ma, Department of Economics, University of Adelaide
“Tests of Weak-Form Efficiency on China’s Stock Markets”

Discussants: Jackie Johnson, Department of Accounting and Finance, UWA
Bruce Grundy, Department of Accounting and Finance, University of Melbourne
THE ABSTRACTS

INTEREST RATE SWAPS AND THE DEVELOPMENT OF THE INTERNATIONAL FINANCIAL SYSTEM

Neil Ackland
University of Sydney

In the 1990s financial derivatives perform a critical role in the operation of the international financial system. Yet from a longer term perspective their development was entirely unexpected. In the postwar economic stability of the 1960s they were inconsequential. In the 1970s, their growth was modest despite the shift to floating exchange rates and the progressive lifting of national capital controls. It was not until the mid 1980s that markets for financial derivatives belatedly took off. This paper investigates the historical development of interest rate swaps which emerged from obscurity in the early 1980s to become the dominant form of international finance in the 1990s. The paper develops the arguments that swap markets represent the culmination of post Bretton Woods financial instability and that their role is best understood in terms of the tension between the nationality of currencies and the internationality of finance.

TWO APPROACHES TO INTERNATIONAL COMPARISONS OF REAL INCOME

Robert Ackland
Australian National University

In this paper, two utility-consistent measures for international comparisons of real income are proposed and implemented using 1980 data on 60 countries from the United Nations International Comparisons Project and the International Labour Office. Cross-country comparisons of economic welfare based on per capita expenditures on goods and services ignore an important commodity, leisure, which is purchased implicitly by not working. In the first part of the paper, leisure-inclusive cross-country comparisons are made using a multilateral version of the true index of real full income, which is shown to be a leisure-inclusive version of Dowrick and Quiggin's (1997) Ideal Afriat Index. In the second part of the paper, expansion paths from an Almost Ideal demand system are used to construct a quasi-homothetic multilateral leisure-exclusive welfare index, which is an output of Blundell, Browning and Crawford's (1998) revealed preference test of common preferences.
THE IMPACT OF A CARBON TAX ON CONSUMER ENERGY DEMAND IN AUSTRALIA: AN APPLICATION OF A DYNAMIC OLS

Muhammad Akmal
Australian National University

Using the dynamic OLS (DOLS) framework developed by Stock and Watson (1993) and national-level quarterly data, this paper reports estimates of the equilibrium elasticities of consumer energy demand in Australia for domestic cooking, cooling, heating and lighting. Domestic per person energy use is divided into the consumption of electricity, gas and a miscellaneous category, residual fuels. The demand for fuel in this equilibrium of long-term relationship is assumed to depend on the own price of the fuel, prices of two other fuels, per capita real income and the weather. The parameters characterising the equilibrium relations are generally estimated with a desirable degree of precision. Significant substitution possibilities are found between electricity and gas and between electricity and other fuels. However, the cross-price elasticity of gas with respect to the price of residual fuels is negative.

The demand elasticities are used to project residential energy demand and associated CO₂ emissions over 1999/00 to 2009/10, under two sets of assumption. In the baseline case, it is assumed that the independent variables will grow at the trend growth rate of the last 10 years. In the other scenario, residential energy demand and CO₂ emissions are projected assuming that a tax of $300, in 1997/98 dollars, per ton of carbon is in place. For the sake of comparison, two other estimates of energy demand elasticities, which are estimated elsewhere by the author, are also employed. Total (residential) energy demand and CO₂ emissions are projected to grow at a rate of 1%-1.4% per annum in the baseline case. The carbon tax, which is assumed to be applied in a gradual fashion, is expected to reduce this rate to around 0.6% assumed.

MACROECONOMIC MODELLING OF THE IMPACT OF FINANCIAL LIBERALISATION ON THE THAI ECONOMY

Wilai Auepiyachut
University of Wollongong

This paper analyzes the causes and consequences of the financial crisis in East Asia. The paper finds that the origins of the current crisis in East Asia mainly resulted from the structural weakness in their domestic financial systems. In the Thai case the radical and rapid financial liberalization policies in the late 1980s and early 1990s which stimulated the massive inflows of capital was at the centre of the Thai financial crisis. A dynamic macroeconomic model is constructed in order to analyze the effects of exogenous shocks arising from Thai financial liberalization policies since the 1980s and their impact upon the development of the Thai economy. In particular, the financial crisis occurring since mid 1997 will be focussed upon.
IDENTIFYING AND MODELLING NONLINEARITIES IN AUSTRALIAN FOREIGN EXCHANGE RATE DATA BY MEANS OF FLEXIBLE NONLINEAR INFERENCE

Ralf Becker
Queensland University of Technology

This paper employs the method of flexible nonlinear inference to analyse nonlinearities in time-series data for the US$ / A$ exchange rate. By treating the functional form of the relationship between present and lagged exchange rate returns as a random variable itself, it is possible to identify features of a nonlinear relationship which facilitate the search for an adequate underlying nonlinear model. The application to daily exchange rate data illustrates the usefulness and limitations of this method and reveals that the US$ / A$ exchange rate switches between very complex processes.

THE ECONOMIC THEORY OF CLUBS: AN EXPLORATION
THE ECONOMIC NATURE OF SURF LIFE SAVING?

Boyd Blackwell
University of Queensland

This paper explores the nature and economic characteristics of surf life saving in Australia. In particular, the economic theory of clubs has great relevance to the study of surf life saving. The nature of surf life saving in Australia is a defacto public good to the community and a club good to its voluntary members. No one is excluded from the use of a safe bathing beach and up to a point recreation on beaches is non-rival. In contrast the membership of surf life saving shares the facilities and goods of their clubs (non-rival up to a point) and yet the use of club facilities is for the use of members exclusively. Thus, a public good is provided by a club good based organisation. Surf life saving thus provides an important case study in the application of the theory of clubs. The paper outlines some of the literature for the economic theory of clubs as it applies to surf life saving. The paper is an attempt to isolate those characteristics within surf life saving clubs that are accounted for in club theory. By doing so it is hoped that further research may model the Pareto optimal level of service provision and membership for surf clubs. The paper as yet provides no statistical results however offers a way forward for further analysis and study.
LABOUR AND EXPORT PROCESSING ZONE STYLE DEVELOPMENTS
ASIAN NEWLY INDUSTRIALIZING ECONOMIES

Donella Caspersz
University of Western Australia

The term export processing zone style development (EPZ style developments) refers to industrial estates and stand alone enterprises predominantly engaged in manufacturing for the export market. The aim of this paper is to consider some of the broader policy issues raised when considering the question of EPZ style developments and labour. This is mainly in terms of whether with the growth of EPZ style developments in advanced industrialized economies (AIEs) such as Australia, a common framework of labour management is emerging between newly industrialized economies (NIE) and AIE locations. It is concluded that while there are variables which will always create a unique result for every country, at the same time there are trends which suggest that this possibility is not as remote as what may first appear.

WAGE DISPERSION, TRADE, PRODUCTIVITY GROWTH AND EDUCATION:
A THEORETICAL ANALYSIS

Hsiao-chuan Chang
Australian National University

There is a large literature on the link between wage dispersion, international trade and productivity growth. The theoretical and empirical research is mainly based on the Heckscher-Ohlin-Samuelson framework and on the cases of a large country. More comprehensive theoretical models are needed to guide further empirical research. This paper contributes to the debate by providing a dynamic intertemporal general equilibrium (DIGE) model incorporating endogenous skill formation. Both the short and long run transition mechanism with shocks can be illustrated. In addition to the traditional argument of trade or productivity growth in wage dispersion, the importance and transmission channel of education is illustrated, which seldom discussed in the literature. It is crucial to embed the dynamic adjustment process for guiding future econometric modeling in which data is used from a dynamic adjustment period. This model also shows a steady state relation, which underlies the literature, can be misleading in the short run.

This model shows that when skill formation is endogenous, the skilled wage has to be larger than the unskilled wage and the wage differential is explicitly independent of the firm side in equilibrium. However, the supplier of education services plays an important role in the wage differential in the context of the education price and taxation. This small open economy model shows that a developed skill intensive country’s trade with a developing country (unskilled intensive) causes wage dispersion in the developed country and wage convergence in the developing country. The result tends to support the argument that trade has a responsibility for wage dispersion. Furthermore, a cut in government education investment tends to raise wage dispersion. Productivity growth at best causes wage dispersion in the short run. From a theoretical perspective it is unclear how productivity raises wage dispersion in the long run.
MODELLING THE DIFFUSION OF NEW STEEL-MAKING TECHNOLOGY

Paul Crompton
University of Western Australia

In recent decades, a major development in the world steel industry has been the wide spread adoption of electric arc furnace steel-making technology. The future of this technology has important implications for raw material suppliers since it uses scrap steel as feed, rather than iron ore. This paper forecasts the adoption of electric arc furnace technology in Japan and the United States using a variety of S-shaped diffusion curves. The results suggest that this new technology will continue to displace the more traditional basic oxygen process. The electric arc furnace share of total crude steel production is expected to rise from 32.8 per cent in 1997 to 36.5 per cent in 2010 in Japan and from 43.8 per cent to 50.1 per cent in the United States over the same period.

SOLVING FOR OPTIMAL SIMPLE RULES IN RATIONAL EXPECTATIONS MODELS

Richard Dennis
Australian National University

This paper presents a new technique to solve for optimal simple policy rules in rational expectations models. Both pre-commitment and discretion are catered for. The algorithm outlined is notable for the flexibility it provides over the structure of the policy rule being solved for. In particular, not all state variables need enter the policy rule allowing rules optimal conditional upon a specific information set to be easily constructed. The algorithm described is compared to existing methods in the literature, and applied to the models of Taylor (1979) and Clarida, Gali, and Gertler (1999).

MARKET POWER IN THE PHILIPPINE RETAIL FOOD INDUSTRY

Larry N. Digal
University of Sydney

Most applications of price transmission models assume perfect competition and use price asymmetry as an indication of market power. This research adopts a multi-stage approach to test for market power in the Philippine retail food industry using a basket of unprocessed and processed food products. Price asymmetry and cointegration models are employed in the first stage to test for price rigidity and asymmetry. While the results derived from these models are indicative, models that directly test for market power in input and output markets are employed in the second stage. Philippine food processors appear to exercise countervailing power against retailers, hence, a bargaining model is employed in the third stage. Models are estimated using industry and firm level data. Preliminary results show imperfect price transmission which may be due to exercise of market power by food retailers and processors.
A NOTE ON THE EXISTENCE OF A CLOSED FORM CONDITIONAL TRANSITION DENSITY FOR THE MILSTEIN SCHEME

Ola Elerian
University of Oxford

Over recent years, we have witnessed a rapid development in the body of economic theory with applications to finance. It has had great success in finding theoretical explanations to economic phenomena. Typically, theories are employed that are defined by mathematical models. Finance in particular has drawn upon and developed the theory of stochastic differential equations. These produce elegant and tractable frameworks which help us to better understand the world. To directly apply such theories, the models must be assessed and their parameters estimated. Implementation requires the estimation of the model's elements using statistical techniques. These fit the model to the observed data. Unfortunately, existing statistical methods do not work satisfactorily when applied to many financial models. These methods, when applied to complex models often yield inaccurate results. Consequently, simpler analytical models are often preferred, but these are typically unrealistic representations of the underlying process, given the stylised facts reported in the literature. In practical applications, data is observed at discrete intervals and a discretisation is typically used to approximate the continuous-time model. This can lead to biased estimates, since the true underlying model is assumed continuous.

The research develops new methods to estimate these types of models, with the objective of obtaining more accurate estimates of the underlying parameters present. The methods are applicable to general models. As the solution to the true continuous process is rarely known for these applications, the methods developed rely on building an Euler-Maruyama approximate model and using simulation techniques to obtain the distribution of the unknown quantities of interest. We propose to simulate the missing paths between the observed data points to reduce the bias from the approximate model. Alternatively, one could use a more sophisticated scheme to discretise the process. Unfortunately, their implementation with simulation methods require us to simulate from the density and evaluate the density at any given point. This has until now only been possible for the Euler-Maruyama scheme. One contribution of the paper is to show the existence of a closed form solution from use of the higher order Milstein scheme. The likelihood based method is implemented within the Bayesian paradigm, as in the context of these models, Bayesian methods are often analytically easier.

INTERNATIONAL TRADE, KNOWLEDGE SPILLOVERS AND GROWTH

Neil Foster
University of Nottingham

New growth theory highlights the importance of knowledge spillovers in the growth process. International trade is seen as one possible channel through which knowledge may be transmitted from one country to another. In this paper we test for the effects of trade related knowledge spillovers in a simple model of economic growth. Our sample allows us to explore spillovers from a number of the major OECD countries on the growth rate of a large number of developed and developing countries. We also test for the existence of knowledge spillovers to our sample of countries from a number of different US manufacturing industries. The results we obtain are mixed and tend to be sensitive to the inclusion of further explanatory variables and to the specification of the spillover variable.
THE TIME SERIES PROPERTIES OF THE SPI FUTURES AND IMPLICATIONS FOR FINANCIAL DECISIONS: SOME PRELIMINARY RESULTS

Owen Guest
La Trobe University

This paper presents some preliminary results on the price-volume relationship of the Australian SPI futures and the implications it has for financial decisions, including trading via technical analysis. Bivariate causality is used to test both the sequential arrival hypothesis and the market efficiency hypothesis.

Both daily and intra-day data from the Australian share price index futures contract is used for testing the price-volume relationship. On a daily basis, there is evidence found to support the hypothesis of bi-directional causality, that is, directional causality exists from volume to absolute price changes and from absolute price changes to volume. A both causal and contemporaneous relationship from volume to price change per se is also found. The results derived from intra-day testing provide strong findings towards a contemporaneous, lagged and bi-directional causal relationship between volume and the absolute price change. Model specification testing finds that the absolute price change model specifications are superior to the price change (per se) causality models. The findings from this paper suggest that information is absorbed into the Australian share price index futures contract contemporaneously and therefore efficiently on a daily basis, but the lagged relationships evident within an intra-day framework suggest a weaker form of market efficiency (especially evident within the ultra high frequency data).

ON MEASURING THE INEQUALITY OF HOUSEHOLD WELFARE: AN EMPIRICAL ANALYSIS FROM THE 1994 INCOME DISTRIBUTION SURVEY

Adrian Hart
University of Sydney

The predominant ‘focus’ of inequality studies has been the inequality of market-based income or expenditure, rather than the distribution of more complex utility-based welfare measures which may include non-marketed leisure time or household production benefits. This paper presents an empirical analysis of the sensitivity of inequality measurement to the choice of ‘focus’ as well as to the choice of assumptions regarding preferences, reference prices, demographic specifications (which imply the conditional equivalence scales for comparing decision units of varying demographic composition) and the inequality index used to measure dispersion. The ‘household’ (a married couple income unit) is treated as the appropriate decision-making unit, with household utility being maximised over the joint consumption and labour supplies of the adult non-dependent members. The analysis uses unit record data for 1,500 married couples drawn from the Australian Bureau of Statistics (ABS) 1994 Income Distribution Survey sample file.
HETEROGENEOUS BELIEFS, RISK AND LEARNING
IN A SIMPLE ASSET PRICING MODEL

Xue-Zhong He
University of Technology, Sydney

Trade among individuals occurs either because tastes (risk aversion) differ, endowments differ, or beliefs differ. Utilising the concept of “adaptively rational equilibrium” and a recent framework of Brock and Hommes (1997, 1998), this paper incorporates risk and learning schemes into a simple discounted present value asset price model with heterogeneous beliefs. Agents have different risk aversion coefficients and adapt their beliefs (about future returns) over time by choosing from different predictors or expectations functions, based upon their past performance as measured by realised profits. By using both bifurcation theory and numerical analysis, it is found that the dynamics of asset pricing is affected by the relative risk attitudes of different types of investors. It is also found that the external noise and learning schemes can significantly affect the dynamics. Compared with the findings of Brock and Hommes (1998) on the dynamics caused by change of the intensity of choice to switch predictors, it is found that many of their insights are robust to the generalisations considered; however, the resulting dynamical behaviour is considerably enriched and exhibits some significant differences.

THE IMPACT OF MAJOR PROJECTS ON REGIONAL ECONOMICS:
THE CASE OF HBI IN THE PILBARA

Peter Johnson
University of Western Australia

The Hot Briquetted Iron (HBI) plant in WA’s Pilbara region, which cost over $2 billion to construct, is the first major minerals processing project to be built in the state’s far north. The impact of the project on the Pilbara and the state economies is analysed using a two-region computable general equilibrium model of the WA economy, WAM-2RP, the first “bottoms-up” general equilibrium model of any region within Western Australia.

ESTIMATES OF THE PRICE ELASTICITY OF DEMAND FOR SELECTED COMMODITIES WITH CORRECTION FOR QUALITY EFFECTS AND MEASUREMENT ERROR: THE CASE OF TEFF

Abbi Kedir
University of Nottingham

The estimation of price elasticities is highly useful for pricing and subsidy policies but challenging. The task is difficult in the absence of actual price information. This study using the methodology developed by Angus Deaton attempts to estimate price elasticity of demand for Teff which is a staple food in Ethiopia and is consumed by 81 per cent of the sampled households. The result shows that correction for quality effects and measurement error results in a slight change in the estimate. Demand for Teff is inelastic.
PRODUCTIVE PERFORMANCE OF CHINESE STATE-OWNED ENTERPRISES IN THE EARLY 1990s – A STOCHASTIC PRODUCTION FRONTIER AND MALMQUIST PRODUCTIVITY INDEX ANALYSIS

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This paper combines the stochastic frontier with the Malmquist Productivity index and estimates the efficiency and productivity for Chinese SOEs in four industries from 1990 to 1994. We confirmed that there is the TFP growth in Chinese state industrial sector. We found that the TFP grew fast in the machinery, grew moderately in the building materials and chemicals, and grew slowly in the textiles industry. On average, the TFP growth is 2.57% per annum for four industries. We further found that the firms in Jiangsu province enjoyed the fastest rate of TFP growth, and corporatized and share-holding firms generally outperformed the firms with other managerial forms.

AN ECONOMIC ASSESSMENT OF THE IMPACT OF OBESITY ON MEDICAL CARE UTILISATION AMONG A SAMPLE OF THE AUSTRALIAN POPULATION

Michael A. Kortt
University of New England

Obesity has been established as an independent risk factor for a number of medical conditions, including type 2 diabetes mellitus, hypertension, coronary heart disease, elevated cholesterol levels, depression, and musculoskeletal pain. According to the Australasian Society for the Study of Obesity, it was reported that some 40% of the Australian population are either overweight or obese.

The economic (and social) costs associated with obesity are substantial. This paper examines the association between medical care utilisation (MCU) and obesity (as measured by the body mass index) for a sample of the Australian population. Data from the 1995 National Health Survey were used to estimate this association. Results from this study provide evidence that MCU is associated with obesity (BMI) and that a decrease in body sizes could significantly reduce medical care costs.

ASSESSING VIETNAM’S TRADE REFORM IN THE REGIONAL AND GLOBAL CONTEXT: GTAP MODEL

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Since 1989 Vietnam has experienced high economic growth and rapid expansion of foreign trade as a result of sweeping economic reforms including trade liberalisation. The country’s improved economic performance has also accompanied with the efforts towards integration into regional and global trade systems. Vietnam joined ASEAN in 1995, and APEC in 1998. The country applied for the WTO’s membership in 1995, and has since taken further liberalisation steps. This paper attempts to assess the implications of Vietnam’s trade reforms in the regional and global context using the GTAP model. Four scenarios are examined: (1) Vietnam’s unilateral tariff reduction; (2) tariff cut under AFTA; (3) tariff cut under APEC; and (4) tariff cut in the context of global trade liberalisation. The results indicate that regional trade liberalisation such as AFTA and APEC, as well as global trade liberalisation will generate gains for both Vietnam and the world. The study also shows structural changes in Vietnam as a result of trade reform.
TESTS OF WEAK-FORM EFFICIENCY ON CHINA’S STOCK MARKETS

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This study tries a completed test of weak-form efficiency on China’s Stock Markets. Evidences indicate the existence of seasonality effects on both Shanghai and Shenzhen markets. However, the patterns of the day-of-the-week effect, the month-of-the-year effect and holiday effect are different from the patterns exhibited in many markets of the world. The significant autocorrelation of returns have been found for daily indexes, but not the same significant for individual shares. The puzzle is that the test statistics are not significant as those derived from majority of developed markets, even though China’s Stock Markets are not as efficient as those markets from several viewpoints.

ASSET PRICING IN A SIMPLE OLG ECONOMY

Vlad Pavlov
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The equity premium and risk free rate puzzles have attracted considerable attention in the literature on asset-pricing. In a recent paper Constantinides, Donaldson and Mehra suggested an overlapping-generations (OLG) economy as a framework for analyzing these pricing anomalies. They claim that both puzzles can be explained as resulting from a borrowing restriction placed on the young. In this paper we analyze the robustness of this conclusion to changes in the basic assumptions, using a simple OLG economy with logarithmic preferences.

A NEW APPROACH TO SCHEDULING NEW URBAN ROAD PROJECTS

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A common application of Cost Benefit Analysis is by road authorities as a means of evaluating and ranking competing road projects. It is important to consider the relative valuations of costs and benefits taking place at the time when they occur and at various points in time. This is because of the problem of time preferences and the opportunity cost of capital as well as the dynamic nature of road networks. Further, the implementation of each project changes the flow pattern of traffic in the network, creating complex project interaction effects. The aim of this paper is to present a genetic algorithm method which simultaneously evaluates and schedules road projects at a network wide level. Results obtained from scheduling projects using traditional cost benefit analysis is compared with results obtained from the genetic algorithm.
TELECOMMUNICATIONS MARKET EVOLUTION: 
AN OVERVIEW OF TELEGRAPHY AND TELEPHONY 1837-1934

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Rapid technological change is dramatically changing existing telecommunications institutions. Traditional pricing, policy and regulation, based on monopoly service international markets, is becoming less effective. Expectations of a new era of competition and technological innovation in telecommunications motivates reflection. This paper examines how historical events concerning the nature of competition, technology change and public policy influenced telecommunications regulation and market structure from 1837 to 1934. Events are drawn from domestic market developments in Europe, the United Kingdom and the United States.

MULTILATERAL COMPARISONS OF PRODUCTIVITY, TERMS-OF-TRADE AND FACTOR ACCUMULATION: CHINA IN CONTEXT

Alice Shiu
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This paper combines two recently-proposed innovative techniques to produce a new approach for multilateral comparisons using index numbers. The application of this new technique to comparisons of China with developed countries allows the examination of differences between the economies at various levels. The Minimum Spanning Tree (MST) algorithm, based on the idea of minimizing substitution bias of bilateral comparisons, provides a possible ordering for panel data. Making use of the suggested ordering, bilateral Tornqvist price and quantity indexes are calculated and multilateral indexes are obtained by chaining. An index-number based approach is then used to decompose the differences in GDP at the bilateral level. Different sources that contribute to the differences in GDP are considered: Productivity differences, terms of trade differences, factor endowments differences and domestic output price differences. Countries in the study include China, Japan, Canada, the US and Australia.

ALTRUISM IN A TWO COUSIN, TWO COMMODITY MODEL WITH A TRANSFER: 
THE EFFECT OF MEDDLESOME AND NON-MEDDLESOME PREFERENCES

Welshy Tupou
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This paper embellishes on the one commodity father and son model utilized in Stark (1995) by examining the one and two commodity cases using both meddlesome and non-meddlesome preferences. Contrary to Stark’s findings, it is found that the greater the discrepancy between the endowments of the agents, the greater an endogenous transfer amount will be. Analysis is also made of the one and two commodity altruistic models when the amount transferred from rich cousin to poor cousin is assumed to be exogenous to the model. In both cases, it is found that the optimal transfer is equal to the donor’s endowment of the transferable commodity minus the solution to his utility maximization problem when no transfer takes place.
A TARIFF INCREASE WITH AN OFFSETTING REDUCTION IN CONSUMPTION TAXES: A GENERAL EQUILIBRIUM ANALYSIS FOR VIETNAM

Thiep Van Ho
Monash University

Promoting import-competing industries is often considered a good strategy for growth in developing countries. We illustrate this by employing a static general equilibrium model to examine effects on Vietnam of a 10 per cent tariff increase in combination with an endogenous reduction in consumption taxes. Our key assumptions are that: industry-specific capital stocks, the real wage, aggregate indirect tax revenue and the exchange rate are fixed. Our results show increases in employment, real consumption and saving. Except for contractions in traditional-export industries, the economy is expanded. There is an increase in investment in the import-competing industries and a decrease in the traditional-export industries. Throughout the paper, back-of-the-envelop analysis is performed to explain results.

DEMUTUALISATION IN THE AUSTRALIAN LIFE INSURANCE INDUSTRY

Annette Weier
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Australia’s life insurance industry has recently undergone a major change in ownership structure, with the conversion to stock companies of three large mutual funds. I present a model of capital demand and supply to compare the impact of differential access to capital on the relative competitiveness and growth capacity of mutual and stock life insurance companies. Under certain conditions for industry product demand and regulatory environment, the mutuals’ inability to raise external capital confers a competitive advantage. Recent industry and regulatory changes caused the mutuals’ inherent capital constraint to begin to damage their capacity to innovate and expand. Listing on the stockmarket became imperative for their long-term survival.

IMMIGRANT AND NATIVE-BORN WAGE DISTRIBUTIONS IN AUSTRALIA: 1982-1996

Roger Wilkins
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The earnings distributions of full-time employee male and female immigrants to Australia are contrasted with those of native-born workers using data from ABS Income Distribution Surveys spanning the period 1982 to 1996. In addition to presentation of summary measures of distributional features, non-parametric kernel density estimation methods are employed to facilitate examination of the entire wage distributions. These methods are also adapted (as per DiNardo, Fortin and Lemieux (1996) to permit consideration of the roles played by changes in the wage structure versus changes in the observed skill composition of immigrants and native-born workers in explaining distributional changes over the fourteen year period.
REAL EFFECTS OF MOVEMENTS IN NOMINAL EXCHANGE RATES: APPLICATION TO THE EUROPEAN MONETARY UNION

E. Sibel Yelten
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Fluctuations in major currencies such as the US dollar, the Japanese Yen and the Euro, affect the prices and volume of traded goods worldwide and gets transmitted into the minor currency economies. I connect the Sjaastad (1996) model, which models the effect of movements in major currencies on the inflation rate of minor currency economies with the optimal currency area theory of Mundel (1961). The “price making power” major currency countries have on European countries are estimated. Those coefficient estimates allow us to predict the future economic development of European countries assuming that they join the single currency. The estimates make it possible to predict which countries would face an inflation rate and real interest rate that would deviate from the core of Europe, due to fluctuations in the Euro against other major currencies.

FDI AND CHINA’S PROVINCIAL EXPORTS
WHICH IS CAUSE AND WHICH IS EFFECT?

Qing Zhang
University of Tasmania

The objective is to explain the relationship between FDI in China's provinces and cities and exports from these. The methodology involves the joint determination of FDI and exports prompted by a substantial development literatures assessing the direction of causation between FDI and exports. The sample was split into three groups: high FDI recipient (SEZs), median and low FDI provinces. The model accommodates the concentration of FDI in eastern seaboard provinces following China's adoption of its open door policy in 1978. The literature on China's development and data availability suggest that the provincial city level of aggregation is appropriate for macro modelling of the Chinese economy.
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