ECONOMIC RESEARCH CENTRE
Department of Economics
University of Western Australia

CENTRE FOR ECONOMIC POLICY RESEARCH
Research School of Social Science
Australian National University

DEPARTMENT OF ACCOUNTING AND FINANCE
University of Western Australia

REPORT OF THE 1997
PhD CONFERENCE IN ECONOMICS AND BUSINESS

5-7 November
UWA Perth
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5-7 November
UWA Perth

Conference Convenor: Ken Clements
Conference Coordinator: Paula Madsen
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THE REPORT

The 1997 PhD Conference in Economics and Business was held at the University of Western Australia in Perth from 5 to 7 November 1997. It was the tenth in this series of conferences and was jointly organised by the Economic Research Centre and the Department of Accounting and Finance, 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 -- 30 students from major Australian universities, one from the University of Auckland, New Zealand, and one from the University of Nottingham in the UK. The papers covered a diverse range of topics including economic growth, development, labour economics, consumption, price behaviour, education, econometrics, public policy, resource economic valuation of options, capital markets and financial institutions. Overall, the papers were of a very high standard and all the students are to be congratulated for their efforts.

As in previous years, each student is assigned a discussant who reads the student’s paper in advance and prepares a written set of comments. The discussants and session chairs were drawn from a wide range of Australian universities, as well as the National University of Singapore, University of California at Davis, the Reserve Bank of Australia and the Australian Bureau of Agricultural and Resource Economics. We would like to thank all these people whose participation and hard work contributed greatly to the success of the conference.

In addition to the students, discussants and chairpersons, the conference was attended by a number of representatives of organisations who sponsored the conference. From the feedback received, these delegates enjoyed the conference and found it to be an interesting and worthwhile experience. We would like to thank these organisations for providing their staff with the time to attend the conference. We would also like to thank those staff and students of Western Australian universities who participated in the sessions.

The conference began with a 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 at the UWA, Professor Paige Porter.

Professor Tom Smith from the Australian Graduate School of Management at the University of New South Wales gave this year’s invited lecture. Professor Smith
delivered a very interesting talk on future directions of research in finance. Thursday’s proceedings were concluded with drinks hosted by McKinsey & Company. Prior to the drinks two consultants from McKinsey & Company gave a short talk on the work of a consultant.

The conference concluded with a dinner on the Friday evening at the Royal Perth Yacht Club. Professor Peter Dixon of the Centre of Policy Studies at Monash University gave a very interesting and entertaining speech.

As has become the tradition, a prize was awarded for the best student paper and the best discussant. This year, the students had a particular incentive to work hard, as McKinsey & Company sponsored a $1,000 prize for the best student paper. Associate Professor Joshua Gans of the Melbourne Business School, University of Melbourne, had the difficult task of attending as many sessions as humanly possible as well as talking with other participants to determine the winners of the awards. At the Conference dinner, Joshua outlined possible game-theoretic strategies that students could employ to win the prize. The student award went to Rhema Vaithianathan from the University of Auckland for her paper “Common Agency and Moral Hazard in Purchasing Physician Services”. Honourable mentions were also made for the presentations given by Kenneth Leong of the UWA, Robyn Swift of Griffith University and Maria Balatbat of the University of Sydney. The prize for the best discussant went to Professor Bill Griffiths of the University of New England who prepared a 13-page set of high-quality comments. Special mentions were also made for the contributions of Professor Alan Woodland of the University of Sydney and Dr Garry Twite of the University of New South Wales.

Paula Madsen acted as Conference Coordinator and did an outstanding job in dealing with all aspect of the arrangements.

The PhD Conference plays a unique and very important role in economic and business research. Over 220 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. On behalf of the organisers, I would like to acknowledge the assistance of the following institutions:

ABARE
Academy of Social Sciences in Australia
ACCC
Agricultural and Resource Economics, UWA
Alcoa of Australia
Allen Consulting
ANZ Bank
Arthur Robinson & Hedderwicks
Australian Agricultural & Resource Economics Society
Australian Bureau of Statistics
Australian Equipment Lessors Association
Australian Finance Conference
Australian Gas Light Company
Australian Investment Managers’ Association
Barclays Global Investors Australia
Bureau of Transport & Communication Economics
Canon Australia
Centre for International Economics
Chamber of Commerce & Industry of WA
Commonwealth Bank of Australia
Commonwealth Department of Finance
Commonwealth Department of Social Security
Coopers & Lybrand
DEETYA
Department of Economics, UWA
Department of Information Management and Marketing, UWA
Department of Organisational and Labour Studies, UWA
Department of Political Science, UWA
Deutsche Morgan Grenfell
Economic Society of Australia
Economic Society of Australia - WA Branch
Faculties of Economics and Commerce, Education, and Law, UWA
Fineline Print and Copy Service
Fletcher Challenge
Forest Industries Federation (WA)
Graduate School of Management, UWA
Hamersley Iron
Hollywood Private Hospital
Homestake Gold of Australia
HongkongBank of Australia
IDP Education Australia
Industry Commission
J P Morgan Australia
Lend Lease
Macquarie Bank
McDonald’s Australia
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Morgan’s Stockbroking
Normandy Group
Queensland Treasury
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Reuters Australia
Rio Tinto
Robe River Mining
Rural Industries Research & Development Corporation
Sherwood Overseas Company
Sons of Gwalia
Swan Brewery
Sydney Futures Exchange
Town and Country Bank
United Construction Group
WA Department of Commerce and Trade
WA Department of Conservation & Land Management
WA Department of Resources Development
WA Farmers Federation
WA Ministry of Planning
WA Ministry of the Premier and Cabinet
WA Office of Energy
WA Treasury
Wesfarmers
West Australian Petroleum
Westpac Banking Corporation
WMC Resources
Woodside Offshore Petroleum
Worsley Alumina

Kenneth W Clements
Conference Convenor
THE PROGRAM

TIMETABLE

Wednesday 5 November

6.30pm     Registration & Reception - BBQ     University House

Thursday 6 November

8.45 - 9.00am    Late Registration

9.00 - 9.15am    Opening Address
     Paige Porter
     Executive Dean, Faculties of Economics & Commerce,
     Education and Law, University of Western Australia

9.15 - 10.45am  Session 1: Economics of Education
                Session 2: Capital Markets and Accounting

10.45 - 11.15am  Tea/Coffee

11.15 - 12.45pm  Session 3: Asian Economic Growth
                Session 4: Resource Economics

12.45 - 2.00pm    Lunch in the Tropical Grove

2.00 - 3.00pm    Invited Lecture
     Tom Smith
     Australian Graduate School of Management
     University of New South Wales

3.00 - 3.30pm    Tea/Coffee

3.30 - 5.45pm    Session 5: Consumption
                Session 6: Valuation of Options

6.00 - 7.30pm    Drinks hosted by McKinsey & Company
**Friday 7 November**

8.45 - 11.00am  Session 7: Price Behaviour  
Session 8: Tax, Crime and Health

11.00 - 11.30am  Tea/Coffee

11.30 - 1.00pm  Session 9: Development Economics 1  
Session 10: Capital Structure and Financial Institutions

1.00 - 2.15pm  Lunch on the Matilda Bay Foreshore

2.15 - 3.45pm  Session 11: Econometrics  
Session 12: Development Economics 2

3.45 - 4.15pm  Tea/Coffee

4.15 - 5.45pm  Session 13: Labour Economics  
Session 14: Capital Markets

7.00 for 7.30pm  Conference Dinner held at the Royal Perth Yacht Club

Speaker: Peter Dixon  
Centre of Policy Studies  
Monash University

Joshua Gans, Melbourne Business School, University of Melbourne, will act as the Judge for the awards for the best student and the best discussant. The prizes will be awarded at the Conference Dinner.
SESSIONS

Opening Address

Paige Porter, Executive Dean, Faculties of Economics & Commerce, Education and Law, University of Western Australia

Session 1: Economics of Education

Chairperson: Phil Lewis, School of Economics, Murdoch University

Yew Liang Lee, Department of Economics, University of Western Australia
“Estimation of the Economic Return to Schooling from the Australian Twin Sample”

Diane Dancer, Department of Econometrics, University of Sydney
“An Econometric Analysis of Performance in a Basic Econometrics Course”

Discussants: Paul Chen, Faculty of Economics and Commerce, Australian National University
Bill Griffiths, Department of Econometrics, University of New England

Session 2: Capital Markets and Accounting

Chairperson: Bryan Howeison, Department of Accounting and Finance, UWA

Christine Tan, Department of Accounting and Finance, University of Melbourne
“The Economic Consequences of and Motivations Driving Takeovers of Financially Distressed Public Firms in Australia”

Gerry Gallery, Department of Commerce, University of Queensland
“An Analysis of the Disclosure versus Recognition Issue in Financial Reporting - The Case of Lease Accounting”

Discussants: Ray Da Silva Rosa, Department of Accounting and Finance, UWA
Nasser Spear, Department of Accounting and Finance, University of Melbourne
Session 3: Asian Economic Growth

Chairperson: Jakob Madsen, Department of Economics, University of Western Australia

Chang-Soo Lee, Australia-Japan Research Centre, ANU
“Sources of Growth in the Korean Manufacturing: Some Issues”

Renuka Mahadevan, Department Economics, RSPAS, ANU
“Singapore’s Total Factor Productivity Growth in the Manufacturing and Service Sectors: A Decomposition Analysis”

Discussants: Catherine Morrison, Department of Agricultural and Resource Economics, University of California at Davis
Shandre M Thangavelu, Department of Economics and Statistics, National University of Singapore

Session 4: Resource Economics

Chairperson: Philip Maxwell, Western Australian School of Mines, Curtin University

Peter Oppenheim, Department of Econometrics, Monash University
“A Nested Logit Model of Floral Choice”

Ye Qiang, Economic Research Centre, Department of Economics, University of Western Australia
“How Different is Mining from Mineral Processing? A General Equilibrium Analysis of New Resources Projects in Western Australia”

Discussants: Antony Selvanathan, Faculty of Asian and International Studies, Griffith University

Bob Gregory, Economics Program, RSSS, Australian National University

Invited Lecture

Chairperson: H Y Izan, Department of Accounting and Finance, University of Western Australia

Tom Smith, Australian Graduate School of Management, UNSW
“The Current State and Future Directions of Research in Finance”
Session 5: Consumption

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

Paul Blacklow, Department of Economics, University of Tasmania
“A Disaggregated Approach to the Effects of Age and Income Distribution on Aggregate Consumption and Saving in Australia”

Kenneth Leong, Department of Economics, University of Western Australia
“Testing the Life-Cycle Permanent Income Hypothesis using Intra-Year Data for Australia, the United Kingdom and Germany”

Jonathan Boymal, Department of Economics, Monash University
“Alcohol Addiction as Intrapersonal Coordination Failure”

Discussants: Geoff Kingston, Department of Economics, University of New South Wales
Guy Debelle, Economic Research Department, Reserve Bank of Australia
Daniel Leonard, School of Economics, Flinders University of South Australia

Session 6: Valuation of Options

Chairperson: David Allen, School of Business Economics and Finance, Edith Cowan University

John Handley, Department of Accounting and Finance, University of Melbourne
“Variable Purchase Options”

Sean Pinder, Department of Accounting and Finance, Monash University
“The Pricing of Low Exercise Pricing Options”

Mark Van De Vyver, Department of Accounting and Finance, University of Western Australia
“Curved Boundaries in Option Pricing”

Discussants: Richard Heaney, Faculty of Economics and Commerce, ANU
Garry Twite, AGSM, University of New South Wales
David Walsh, Department of Accounting and Finance, UWA
Session 7: Price Behaviour

Chairperson: Darrell Turkington, Department of Economics, University of Western Australia

Michael Olive, School of Economics and Finance, Curtin University
“The Influences on Manufacturing Pricing from Production Costs and Demand Shifts: A Within Industry, Across Countries Study using Panel Data”

Nerissa Salayo, School of Economics, Griffith University
“A Hedonic Approach to Evaluate Price Reports of Traded Prawn and Shrimp in Selected Asia Pacific Countries”

Robyn Swift, School of Economics, Griffith University
“Exchange Rates and Commodity Prices: The Case of Australian Metal Exports”

Discussants: Jayant Menon, Centre of Policy Studies, Monash University
Robert Hill, Department of Economics, University of New South Wales
Jammie Penm, ABARE

Session 8: Tax, Crime and Health

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

Edimon Ginting, Department of Economics, Monash University
“Can Tax Reform Work in an Economy where Tax Avoidance and Evasion are Endemic?”

Glenda Adkins, Department of Government, Economics and Logistics, USQ
“The Criminal Justice System in Queensland: An Economic Analysis”

Rhema Vaithianathan, Department of Economics, University of Auckland
“Common Agency and Moral Hazard in Purchasing Physician Services”

Discussants: Bill Schworm, Department of Economics, University of Sydney
Robert Marks, Australian Graduate School of Management, UNSW
Stephen King, Economics Program, RSSS, Australian National University
Session 9: Development Economics 1

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

Ramesh Durbarry, Department of Economics, University of Nottingham
“The Impact of Foreign Aid on Economic Growth: An Empirical Investigation”

Nasiruddin Ahmed, Department of Economics, University of Sydney
“External Sector and Liberalisation in Bangladesh: A Macroeconometric Analysis”

Discussants: Sisira Jayasuriya, School of Business, La Trobe University
Mohammad Taslim, Department of Economics, University of New England

Session 10: Capital Structure and Financial Institutions

Chairperson: David Woodliff, Department of Accounting and Finance, UWA

Kerry Pattenden, School of Banking and Finance, University of New South Wales
“An Empirical Reexamination of Capital Structure using Multivariate Inequality Tests and Bayesian Analysis”

David Morrison, TC Beirne School of Law, University of Queensland
“The Structure of Australian Financial Institutions”

Discussants: Neville Hathaway, Melbourne Business School, University of Melbourne
Ning Gong, Melbourne Business School, University of Melbourne

Session 11: Econometrics

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

Mm Qiu, Department of Information Management and Marketing, University of Western Australia
“Estimation of Direct Demand and Logit Route Choice Models by a Combination of Genetic Algorithm and Newton’s Method”

Angelica Njuguna, Department of Economics, University of New England
“Econometric Analysis of Growth in Southeast Asia: An Application of Dynamic Modelling”
Discussants: Ron Bewley, Department of Economics, University of New South Wales
Satish Chand, Department of Economics, RSPAS, Australian National University

Session 12: Development Economics 2

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

Amy Liu, Yuk Chu, National Centre for Development Studies, Australian National University
“Children’s Time use Behaviour in Vietnam: Mother and Children”

Asep Suryahadi, Faculty of Economics and Commerce, Australian National University
“The Effects of Openness on Developing Country Labour Markets: The Case of Indonesia”

Discussants: Alan Woodland, Department of Econometrics, University of Sydney
Kym Anderson, Department of Economics, University of Adelaide

Session 13: Labour Economics

Chairperson: Helal Ahammad, Economic Research Centre, Department of Economics, UWA

Matthew Gray, Economics Program, RSSS, Australian National University
“Employment History as a Productivity Signal”

Ian Clarke, Department of Economics, University of Newcastle
“The Polarisation in the Distribution of Working Hours in Australia: Measurement Issues and Possible Explanations”

Discussants: Denise Doiron, Department of Economics, University of Sydney
Chris Worswick, Department of Economics, University of Melbourne

Session 14: Capital Markets

Chairperson: Janice How, Department of Accounting and Finance, University of Western Australia

Maria Balatbat, Department of Accounting, University of Sydney
“The Examination of the Long-run Postlisting Operating Performance of Initial Public Offering Firms in Australia between 1976-1993”

Vanitha Ragunathan, Department of Economics and Finance, RMIT
“Modelling the Time-varying Correlation between National Stock Market Returns”

Discussants: Steve Easton, Department of Accounting and Finance, University of Newcastle

Kim Sawyer, Department of Accounting and Finance, University of Melbourne
THE CRIMINAL JUSTICE SYSTEM IN QUEENSLAND:
AN ECONOMIC ANALYSIS

Glenda Adkins
University of Southern Queensland

Public opinion about crime and its prevention and law and order policies alike are often based on a relatively superficial view of the nature and extent of the crime problem and the ways in which relevant criminal justice agencies react to criminal activities and interact with each other. The purpose of this paper is to provide background information about the changing nature and extent of the crime problem in Queensland and to develop a simulation model which places the various agencies of criminal justice into a system of interactive and reactive decision-making entities. By modelling the system in this manner, both the inherently reciprocal nature of the primary participants and the dynamic behaviour of the system itself is accentuated.

EXTERNAL SECTOR AND LIBERALISATION IN BANGLADESH:
A MACROECONOMETRIC STUDY

Nasiruddin Ahmed
University of Sydney

A small macroeconometric model has been developed for studying the behaviour of the external sector of the Bangladesh economy in pre and post-liberalisation period. An attempt is made to estimate this preliminary model in a cointegration-error correction framework since most of the variables have emerged as non-stationary. The estimated error-correction models have been subjected to some diagnostic testing. An attempt is also made to simulate the effects of alternative policy changes on key macroeconomic variables like money, output, prices, fiscal balance and current account balance.

THE EXAMINATION OF THE LONG-RUN OPERATING PERFORMANCE OF INITIAL PUBLIC OFFERING FIRMS IN AUSTRALIA

Maria C. A. Balatbat
University of Sydney

This research will examine the long-run operating performance of firms that went public in Australia and investigate the effect of the post-listing changes in ownership and board composition on firm performance. The primary emphasis is the use of accounting-based measures (as opposed to the use of stock market returns usually adopted in earlier research), to measure long-run performance of initial public offering firms (IPOs).
Existing US based evidence suggests that the operating performance of IPO firms deteriorates after going public. Although there is some evidence of poor long-run stock returns for Australian IPOs, there is little (if any) detailed analysis of accounting-based performance measures. This research aims to determine the long-run operating performance of Australian IPOs, investigate whether the change in ownership and governance structure, specifically board composition, influence the long operating performance of IPO firms, and examine whether operating performance can potentially explain the documented poor long-run stock returns of IPO firms.

**A DISAGGREGATED APPROACH TO THE EFFECTS OF AGE AND INCOME DISTRIBUTION ON AGGREGATE CONSUMPTION AND SAVING IN AUSTRALIA**

Paul Blacklow
University of Tasmania

Typically economic theories of consumption and saving are based on a representative agent whose behaviour is aggregated to give an aggregate consumption function. Of course to do this assumes that all consumers behave in the same manner, often ignoring the fact that agents behaviour will differ according to their age and where they fall in the size distribution of income. Blinder (1975) noted that “the only rigorously correct way to test for the existence of distribution effects in the aggregate consumption function is to estimate directly the separate marginal propensities to consume by income class”. In order to isolate the effects of income distribution from life cycle factors this’ paper estimates consumption functions for each income and age class using Household Expenditure Survey, HES data from the Australian Bureau of Statistics (ABS).

**ALCOHOL ADDICTION AS INTRAPERSONAL COORDINATION FAILURE**

Jonathan Boymal
Monash University

This paper models individual decision-making with respect to alcohol consumption as an intrapersonal game among different temporal selves, given the inability to precommit future, or alter past behaviour. As with Becker and Murphy’s (1988) rational addiction approach, the analysis of alcohol addiction yields two stable, and one unstable, equilibria. Yet unlike their model, the reinforcement process characterising addiction emerges due to the decreased marginal productivity in the production of substitute commodities, rather than because of the increased marginal benefits associated with alcohol consumption. A sub-agent’s decision regarding production of commodities that are substitutes for heavy drinking is shown to affect the utility of other sub-agents. This externality gives rise to a potential coordination problem. Particular attention is given to the role of strategic complementarity in determining the existence of multiple Pareto rankable intrapersonal equilibria. The model sheds light on how addiction is maintained in part by subjective
constraints and self fulfilling expectations. The reasons for the persistence of addictive behaviour and the self strengthening process of recovery are explored and the effect of depression on addictive consumption is illustrated.

**THE POLARISATION IN THE DISTRIBUTION OF WORKING HOURS IN AUSTRALIA: MEASUREMENT ISSUES AND POSSIBLE EXPLANATIONS**

Ian Clarke  
University of Newcastle

The distribution of working hours amongst employees in Australia has become polarised. The proportion of employees working part-time hours has been increasing for at least the last thirty years. More recently there has also been rapid growth in the number of full-time employees working long hours (over 48 hours per week). A new technique devised by Morris, Bernhardt, and Handcock (1994) is used to examine the significance and the sources of the polarisation in the distribution of working hours. From this, some possible explanations are offered as to the cause of the polarisation in working hours.

**AN ECONOMETRIC ANALYSIS OF PERFORMANCE IN A BASIC ECONOMETRICS COURSE**

Diane Dancer  
University of Sydney

Using a sample of 920 students in the Faculty of Economics at the University of Sydney, performance in the first-year econometrics course is modelled. Such models allow for identification and quantification of the factors that are most important in determining student performance. This makes them a potentially useful aid in educational decision making. I am especially interested in the usefulness of such models in the identification of “students at risk”. This interest highlights the need to consider students who drop the course as well as those who complete but who ultimately fail. From a modelling perspective, some care needs to be taken in guarding against biases due to possible non-random sampling caused by the students who drop the course as well as those students for whom complete information is not available.

**THE IMPACT OF FOREIGN AID ON ECONOMIC GROWTH: AN EMPIRICAL INVESTIGATION**

Ramesh Durbany  
University of Nottingham

Foreign aid inflows have grown significantly in the post-war period. Many studies have been trying to assess the effectiveness of foreign aid at the micro- and macro-level. While
micro-evaluations have found that in most cases aid ‘works’ (e.g. Cassen et al., 1986),
those at the macro-level are ambiguous. This difference in result is what Mosley referred
to as the micro-macro paradox. The aim of this paper is to assess foreign aid impact on
growth of developing countries. First, we establish a link between foreign aid and growth,
and second, an empirical investigation is performed. After carefully selecting a sample of
countries and size, we use a Fischer-Easterly type model to include some macroeconomic
indicators which have so far been overlooked in the aid-growth literature. Using both
cross-section and panel data techniques the results strongly support the view that the
effectiveness of foreign aid does have some positive impact on growth.

AN ANALYSIS OF THE DISCLOSURE VERSUS RECOGNITION
ISSUE IN FINANCIAL REPORTING - THE CASE OF LEASE ACCOUNTING

Gerry Gallery
University Of Queensland

The purpose of this study is to examine the economic differences between lease
accounting disclosure and recognition. Motivated by a lack of prior research on the
disclosure and recognition issue in general, and inconsistent findings in lease disclosure
and recognition research in particular, the study specifically focuses on the incentives for,
and implications arising from the adoption of the alternative forms of lease reporting.
Employing contracting theory and valuation-based research perspectives, a model is
developed to explain managers’ incentives to respond differently to a regulatory change
in lease disclosure and recognition requirements. The model links managers’ responses to
the specific nature of lease assets and the associated contractual characteristics and
consequently, is expected to provide richer explanations of observed responses to lease
accounting regulation. Preliminary results are generally confirmatory of the model.

CAN TAX REFORM WORK IN AN ECONOMY
WHERE TAX AVOIDANCE AND EVASION ARE ENDEMIC?

Edimon Ginting
Monash University

In this model firms seek to minimise their tax liabilities by purchasing rent-seeking
services from a provider who also sells legitimate public services to the government. The
providers enjoy economies of scope - its two outputs are produced jointly. Tax reform in
this setting can increase both government revenue and the efficiency of the economy
because a type of Laffer curve is operational and because such reform can lead to
resources being moved out of rent-seeking activity. Later this partial equilibrium
framework will be embedded within a conventional general equilibrium model.
UNEMPLOYMENT HISTORY AS A PRODUCTIVITY SIGNAL

Matthew Gray
Australian National University

This paper studies how employers with imperfect information about a potential employee’s productivity, use observable characteristics to form an estimate of productivity. First, a model in which wages and probability of employment are jointly determined is discussed. In order to overcome the endogeneity problem, the predicted probability of employment is used as an instrumental variable in a wage equation, with the estimates suggesting that past higher levels of unemployment decreases current wages. Second, the effect of previous unemployment on earnings is measured directly. The paper finds that a history of unemployment is associated with lower wages, but by less than the predicted probability of employment. This implies that the predicted probability of employment can be interpreted to be a broader measure of potential productivity than is actual unemployment history.

VARIABLE PURCHASE OPTIONS

John C. Handley
University of Melbourne

A variable purchase option (“VPO”) is a call option issued by a company on a stochastic rather than on a fixed number of its ordinary shares. Each option provides the holder with the right but not the obligation to buy a variable number of ordinary shares at a fixed discount to the underlying share price at maturity. VPO’s are structured to always be in-the-money at maturity and hence ex-ante certain to be exercised by rational investors at that time. The security therefore provides companies with a viable alternative to underwriting as a means to guarantee the success of a future equity capital raising. This paper first examines the design of the security and second derives a theoretical value for a VPO within a continuous time framework.

SUSTAINABILITY OF GROWTH IN THE KOREAN MANUFACTURING SECTOR

Chang-Soo Lee
Australian National University

This paper challenges Krugman’s pessimistic paradigm on East Asian economic growth, using Korean manufacturing data. Firstly I focused on a disaggregated growth accounting approach. I found that productivity growth is the largest contributor to output growth in eight of the fifteen industries, and that productivity growth explains about 38 per cent of output growth of manufacturing overall. Secondly I focused on the theoretical issues, which call into question the theoretical basis of the paradigm. I found that the sequencing
of sources of growth was empirically verified (productivity in light industries $\rightarrow$ capital $\rightarrow$ productivity growth by R&D efforts), and that an increasing or constant output-capital ratio (marginal product of capital) was found in ten of the fifteen industries, and that interactions between productivity growth and capital input growth were found in nine of the fifteen industries. However, the contribution of structural change to productivity growth was not strong. These results give strong indication that East Asian criticism is open to question.

ESTIMATION OF THE ECONOMIC RETURN TO SCHOOLING FROM THE AUSTRALIAN TWIN SAMPLE

Yew Liang Lee
University of Western Australia

The traditional approach to estimate the effects of schooling on economic well-being is to regress a measure of economic well-being on individual attributes. Such a model is incomplete because it does not accommodate the influence of genetic endowments and/or family environment in computing a rate of return to schooling. Using Australian data on twins, this paper seeks to analyse the degree of bias that arises from inadequate control of genetics and the family environment in computing conventional rates of return to schooling. The estimated return to schooling from the traditional model of twins is around 6.0 percent. However, the fixed effects estimation of separate earnings equations for non-identical and identical twins reveals that about one-third is due to genetic endowments, one-third to shared family environment, and only one-third to schooling. Therefore, the empirical bias in estimating the return to schooling in traditional models is substantial. The study also examines the influence on wages of smoking and drinking. The positive effect on wages of moderate drinking, and the negative effects of moderate smoking reported in this study and in the literature are attributable to genetic endowments and family background rather than to drinking or smoking per se.

TESTING THE LIFE-CYCLE PERMANENT INCOME HYPOTHESIS USING INTRA-YEAR DATA FOR AUSTRALIA, THE UNITED KINGDOM AND GERMANY

Kenneth Leong
University of Western Australia

It has been found that real non-durable consumption expenditure for many countries exhibits substantial seasonality. Consumers allocate their non-durable consumption over the four quarters of the year, maximising total utility subject to the period-to-period budget constraint. In this paper, the potential sources of endogenous and exogenous seasonality in consumption are analysed. Osborn (1988) introduced a seasonally-varying utility function for consumption, in which Hall’s (1978) consumption function implies a periodically integrated model of order 1 for real non-durable consumption. Using
quarterly seasonally unadjusted consumption data for Australia, the United Kingdom, and Germany, formal tests for periodic integration are used to examine the modified rational expectations life-cycle permanent income hypothesis. Seasonal habit persistence is introduced in the form of a periodic seasonal ARIMA model, its empirical adequacy is examined and it is found to be significant.

**CHILDREN’S TIME USE BEHAVIOUR IN VIETNAM: MOTHER AND CHILDREN**

Amy Liu, Yuk Chu
Australian National University

As in other developing countries, children in Vietnam participate significantly in various economic activities and play an important role within households. Taking the collective view of households, a theoretical model of a 3-person household (husband, wife and a child), instead of a traditional 2-person household (husband and wife) model, is developed to examine intra-family time allocation behaviour, in particular, that between the mother and children. The main hypothesis of this paper is that children’s time is substitutable for the mother’s home production time, allowing the mother to increase her labour supply. Using the data from the Vietnam Living Standard Survey 1992-93, a two-stage least squares model is estimated. Overall empirical evidence supports the hypothesis.

**SINGAPORE’S TOTAL FACTOR PRODUCTIVITY GROWTH IN THE MANUFACTURING AND SERVICES SECTORS: A DECOMPOSITION ANALYSIS**

Renuka Mahadevan
Australian National University

Although an East Asian miracle, Singapore has been singled out for experiencing insignificant total factor productivity growth, with most of it being capital-driven. This paper examines this controversial hypothesis concerning the manufacturing and the services sectors. It is done in two steps; first using, the conventional growth accounting approach using new data to measure TFPG. Second, a decomposition of total factor productivity growth into technological progress and changes in technical efficiency for the two growth sectors has been attempted using the stochastic production frontier approach. The latter approach facilitates testing the hypothesis of whether technological progress or changes in technical efficiency contributed more to TFP growth in Singapore’s manufacturing and services sectors.
THE STRUCTURE OF AUSTRALIAN FINANCIAL INSTITUTIONS

David Morrison
University of Queensland

In order for Australian financial institutions to operate in a truly deregulated environment, it is necessary for the delineation between various financial institutions to be removed. This paper considers the opportunity for the removal of these differences by the use of a generic structure, namely the corporation, and the implications of the use of a generic financial institution within Australia.

ECONOMETRIC ANALYSIS OF GROWTH IN SOUTHEAST ASIA:
AN APPLICATION OF DYNAMIC MODELLING

Angelica Espiritu Njuguna
University of New England

The study of economic growth is generally concerned with the long-run equilibrium of an economy which is growing over time. The main objective of the study is to incorporate both information on the long- and short-run in an economic growth model. A disequilibrium version of the Solow model is formulated in the form of an equilibrium correction model. This model is used to analyse the growth in Southeast Asian countries using a panel of time-series data. To estimate this model, a two-step procedure is proposed. Firstly, the equilibrium-correction variable is estimated and secondly, an estimator for a dynamic panel data model is applied.

THE INFLUENCES ON MANUFACTURING PRICING FROM PRODUCTION COSTS AND DEMAND SHIFTS: A WITHIN INDUSTRY, ACROSS COUNTRIES STUDY USING PANEL DATA

Michael Olive
Curtin University of Technology

It is shown that a general model of firm pricing behaviour under imperfect competition, with constant marginal costs and a vertical shifting logarithmic inverse demand curve, can have implications for industry pricing. A domestic industry pricing equation that is a function of domestic unit costs, competing foreign prices, gross domestic product and industry concentration is estimated using manufacturing data from 24 three-digit ISIC industries and across seven industrialised countries. For most industries the pass-through from a proportional change in domestic unit costs, foreign prices and gross domestic product to domestic prices is positive. However, increased industry concentration tends to reduce the pass-through from domestic unit costs and increase the pass-through from competing foreign prices and gross domestic product.
A NESTED LOGIT MODEL OF FLORAL CHOICE

Peter P. Oppenheim
Monash University

In this paper we report the findings of a study which was undertaken to determine the salient factors which drive consumers to make the choices they do with respect to the purchase of floral products.

A generative research approach, using depth interviews was adopted to identify general themes and issues associated with the floral purchase decision. Based on the findings of the generative research we conducted a comprehensive survey of floral consumers to quantify the hypotheses developed during the generative phase of the research. A discrete choice experiment in which price and the presence or absence of ten commercially important flowers was varied was also incorporated within the research instrument.

The results obtained from this survey enabled a series of nested logit models to be efficiently estimated at the segment level. A number of emotional and epistemic dimensions were found to be more significant in explaining choice behaviour than the more commonly used demographic variables. The paper concludes by examining the implications of these findings for marketing strategy.

AN EMPIRICAL REEXAMINATION OF CAPITAL STRUCTURE USING MULTI VARIATE INEQUALITY TESTS AND BAYESIAN ANALYSIS

Kerry Pattenden
Australian Graduate School of Management

This study empirically examines the determinants of capital structure suggested by economic theory. The features of the study are:

- measurement of variables in economically meaningful and econometrically sensible terms
- an examination of the full implications of the various economic models (including the direction of change) using multivariate inequality testing methodology
- identification of the most appropriate economic model using Bayesian variable selection methods
- a consideration of both parametric and non-parametric relations between variables.

The analysis is performed on a sample of Australian public companies over a time period which includes different tax regimes and market conditions.
THE PRICING OF LOW EXERCISE PRICE OPTIONS

Sean M. Pinder, Monash University
Stephen A. Easton, University of Newcastle

This paper examines the pricing of low exercise price options (LEPOs) listed on the Australian Stock Exchange. The cost of carrying model is used to calculate theoretical prices which are then compared to the price at which actual trades occurred. The results indicate that LEPO trades, that are unaffected by dividends, may be underpriced relative to the underlying shares. A possible reason for this may be the difficulty associated with short-selling shares in the Australian market.

HOW DIFFERENT IS MINING FROM MINERAL PROCESSING?
A GENERAL EQUILIBRIUM ANALYSIS OF NEW RESOURCES PROJECTS IN WESTERN AUSTRALIA

Ye Qiang
University of Western Australia

Western Australia is experiencing an investment surge in the mining and mineral-processing sectors of the economy. Unlike previous surges, the current one involves a large proportion of mineral-processing projects. This brings to the fore questions about government policies which have long favoured processing over mining. In particular, does mineral processing deliver more jobs per dollar invested and does it generate more export earnings than investment in mining projects? The answers to these questions are potentially of great significance to the future course of the WA economy. In this study, the differential effects on the WA economy of 25 mining and 10 mineral-processing projects are analysed using an economy-wide model of WA. The results indicate that: (i) Both the mining and mineral processing projects will have substantial flow-on benefits to the WA economy as a whole. (ii) On a $1-million-invested basis, mineral processing has larger flow-on effects on employment than does mining. (iii) Mineral processing also generates more export revenue once the projects are operational, again on a $1-million-invested basis. (iv) Many service industries, such as Retail trade, Business services, Health and Education, are major beneficiaries of the new resource projects.

ESTIMATION OF DIRECT DEMAND AND LOGIT ROUTE CHOICE MODELS
BY A COMBINATION OF GENETIC ALGORITHM AND NEWTON’S METHOD

Min Qiu
University of Western Australia

This study specifies a direct demand model and a logit model for road, travel destination and route choice respectively. Maximum likelihood estimation is used to jointly estimate
the parameters of these models. A combination of a genetic algorithm and Newton’s method is used to search for the maximum likelihood estimator, the former exploring various initial search points for the latter to find the optimum solution. This study shows that the two models can be estimated based on information on populations at localities, travel times on the road network in question and some traffic counts on the network.

**MODELLING THE TIME-VARYING CORRELATION BETWEEN NATIONAL STOCK MARKET RETURNS**

Vanitha Ragunathan and Heather Mitchell  
Royal Melbourne Institute of Technology

The analysis of correlations forms the basis of portfolio diversification and the lower the correlation between two assets, the greater the potential benefit to be obtained by diversification. In the international context, this typically involves the analyses of the correlation between the returns on national stock market indices. Erb, Harvey and Viskanta (1994) and Longin and Solnik (1995) have shown that these correlations tend to vary over time according to the phases of the business cycle. We extend this analysis by modelling time-varying correlations for the 18 Morgan Stanley Capital International (MSCI) country indices using the Diagonal Vech parameterisation of the multivariate Generalised Autoregressive Conditional Heteroskedasticity (GARCH) model. We then investigate possible factors that cause the time variation in these correlations. The results do not overwhelmingly indicate the presence of time-varying correlations.

**A HEDONIC APPROACH TO EVALUATING THE PRICE OF TRADED PRAWN AND SHRIMP IN SELECTED ASIA PACIFIC COUNTRIES**

Nerissa D. Salayo  
Griffith University

Hedonic models are reduced form equations establishing the relationship between the price of a product and its attributes. This approach to price analysis is particularly relevant in the context of the notion that today’s consumers are becoming ‘consumers of quality’ rather than ‘consumers of quantity’. This paper aims to determine the adequacy of information content of published indicative price quotes, especially for perishable traded commodities such as shrimp and prawn.

Using White’s heteroscedasticity consistent covariance matrix estimation procedure on log-linear hedonic models, we find that price is distinct by size classes and is significantly influenced by groups of categorical variables representing price quote type, country of destination, month of sale and the interaction variables involving product form, species and country of origin. The paper also discusses the trade implications for exporting countries such as Indonesia, the Philippines, Thailand and Australia, and for importers such as Japan and the USA.
THE EFFECTS OF OPENNESS ON DEVELOPING COUNTRY LABOUR MARKETS: THE CASE OF INDONESIA

Asep Suryahadi
Australian National University

Neoclassical trade theory suggests wage dispersion in developing countries should decline with increased openness, while countervailing hypotheses depend on skill-biased new technology and elastic unskilled labour supply. This paper offers an empirical analysis of the determinants of skilled and unskilled labour demand in Indonesia, where the recent trend has been toward increased wage dispersion. The results suggest that openness, by itself, has enhanced unskilled labour demand. Indigenous capital accumulation has been neutral, although expansion by foreign-owned’ firms has been skill biased.

EXCHANGE RATES AND COMMODITY PRICES: THE CASE OF AUSTRALIAN METAL EXPORTS

Robyn Swift
Griffith University

Exporters of homogeneous commodities are usually regarded as “price takers” who operate in perfectly competitive international markets, so that the pass-through of exchange rate changes to foreign-currency prices must be zero. However, many Australian commodities are subject to influences that may produce more complex pricing strategies, for example, markets in which Australia is a dominant exporter, or where there are few buyers and sellers due to the presence of large multi-national corporations. This paper uses multivariate cointegration techniques to examine the pricing of Australian metal exports, with particular emphasis on the degree and timing of the pass-through of exchange rate and other changes.

THE ECONOMIC CONSEQUENCES OF AND MOTIVATIONS DRIVING TAKEOVERS OF FINANCIALLY DISTRESSED PUBLIC FIRMS IN AUSTRALIA

Christine Tan
University of Melbourne

Mergers can be a strategic response for ailing firms to financial distress. However, few studies in Australia have examined the economic consequences of merging with a financially distressed firm. The primary objective of this study is to examine the wealth creation resulting from a takeover of a financially distressed firm and the source of this wealth. Additionally, the distribution of wealth gains between the acquirer and the acquired firms will be examined. This study proposes to provide empirical evidence on
particular motives (synergy, agency and hubris) driving such an activity. An event study using data on Australian public companies will be conducted. Additionally, a model will be developed using the results of the event study to discriminate between financially distressed firms that liquidate and those that get taken over.

COMMON AGENCY AND MORAL HAZARD IN PURCHASING PHYSICIAN SERVICES

Rhema Vaithianathan
University of Auckland

Physicians typically use privately held information to make treatment decisions that are unobservable to third-party payers. In so doing, they act as common agents of both third-party payers and patients. However, third-party payers and patients often have conflicting objectives. This common agency problem has significant repercussions for the optimal physician reimbursement scheme. In general I find that the reimbursement scheme needs to be more powerful (and expensive) in order to avoid being undermined by the patient. Although in some situations, the patient’s influence may be exploited to the benefit of the third-party payer.

CURVED BOUNDARIES IN OPTION PRICING

Mark Van De Vyver
University of Western Australia

Pricing an option (or more generally a contingent claim), requires an evaluation of the options payoff expected under a martingale measure, subject to some boundary condition(s). This topic of pricing an option subject to some boundary is well studies, with contracts that range from “vanilla” and “exotic” options (where the boundary is contract specific) to American options (where the boundary is a ‘free boundary’). This paper looks at 1) how the first passage density (fpd) is employed in valuing these contracts 2) how the fpd is typically calculated for particular forms of the boundary 3) employs the first passage density (fpd) in the case where one of the underlying, or component, assets in the option hedging/replication problem is (indirectly) subject to a boundary condition.

The paper is by and large a review in nature, though it does fill gaps in some existing approximations suggested for the value of an American put option via an exponential boundary condition.
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