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## EDITORIAL TEAM OF

Dr Vijayakala Seevaratnam  
Ms Sabrina Tan  
Ms Salinah Zuber

THIS ISSUE

Website: <http://nt2.fas.nus.edu.sg/ecs/>

## SCAPE

Singapore Centre for Applied and Policy Economics

*"A research centre with a recognized mandate to carry out independent and rigorous research to serve the economic policy formulation for the Singapore economy and the region"*

Economics is a discipline which can have major impact on decision-making in the public sector arena as well as in industry. Economists have much to say on policy matters which can then provide for better and more informed decision-making for issues such as: forecasting economic growth, labour market and manpower issues; immigration policies, environment and industry, project evaluation, macroeconomic stabilization, international economies and various world and regional organizations, trade policies, health and education.

Policy makers and private sector analysts look towards university academia to carry out such studies. Thus establishing SCAPE, a research centre with a recognised mandate to carry out such studies, is an important step towards catering to this important national need.



*Panelists at SCAPE's Panel Discussion on 'Singapore Budget 2005'*

SCAPE was established on 1 February 2005 in the Department of Economics to carry out independent and rigorous research that will serve as the basis for economic policy in Singapore and the region. The Centre focuses on the following key areas of research: economic modeling, macroeconomics and monetary policy, manpower and labour issues, technology and innovation, transport economics, and economics of aging. The Centre also undertakes applied research work in econometrics and forecasting of the Singapore economy with its Econometric Studies Unit, which was established in 1981. In addition, the Economics Executive Programme (EEP), which seeks to offer executive courses for professionals and organises workshops of topical interest, will also be part of the Centre.

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SCAPE is headed by a Director, assisted by a Deputy Director, and supported by a Working Committee.

Director: Assoc Prof Shandre M. Thangavelu  
 Deputy Director: Assoc Prof Anthony Chin  
 Working Committee: Professor Åke Blomqvist  
 Professor Parkash Chander  
 Assoc Prof Tilak Abeysinghe  
 Assoc Prof Chia Ngee Choon  
 Assoc Prof Shin Jang-Sup  
 Assoc Prof Jose Tongzon  
 Assoc Prof Albert Tsui  
 Assoc Prof Peter Wilson  
 Assoc Prof Zeng Jinli  
 Dr Choy Keen Meng  
 Dr Lim Boon Tiong

There will be an advisory committee for the centre. The advisory committee could bring in research ideas/topics as well as provide significant inputs to meet research needs in the private and public sector. They would also help the centre to formulate future research policy directions, identify issues of national importance and help us link up with relevant international agencies.

Since its inception on 1 February 2005, SCAPE has been and is actively involved in the following activities:

- Panel Discussion on “Singapore Budget 2005” (19 February 2005)
- Panel Discussion on “Sustainable Development in Asia” by Assoc Prof Quah on Channel News Asia – 360 Degrees Programme

- Panel Discussion on “Global Fight Against Smoking” by Professor Parkash Chander on Channel New Asia – 360 Degrees Programme
- Co-hosting of Research Conference on “University-Industry Linkages in Metropolitan Areas in Asia”, sponsored by the World Bank and the Social Science Research Council (24 - 25 May 2005)
- World Bank Project on “A Study on the Management of Appropriate Skills in a Fast Growing Economy with Rapid Technological Change (August - November 2005)

The SCAPE working paper series is available at the SCAPE website. Some of the current titles include: “A Dynamic Shift-Share Analysis of the Electronics Export Market 1988-2001: Can the NIEs Compete with China?”, “Bilateral WTO-Plus Free Trade Agreements”, “The WTO Trade Policy Review of Singapore 2004”, “Pursuing Green Growth: Some Conflicts and Necessary Conditions for a Pragmatic Environmental Policy”, “Reverse Mortgages as Retirement Financing Instruments: An Option for “Asset-rich and Cash-poor” Singaporeans”, and “Modelling Small Economy Exports: The Case of Singapore”. More details on SCAPE are available at <http://nt2.fas.nus.edu.sg/ecs/cent/cent.asp>

The SCAPE committee would like to thank Assoc Prof Euston Quah, the Founding Director of SCAPE, for his vision and hard work in creating the Centre, and thus developing an important avenue for policy discussion on national issues. The Centre would not have been established without his persistence and recognition of the need for economic policy research.

## NEW PROGRAMME FROM ACADEMIC YEAR 2005/2006 DOUBLE HONOURS DEGREE IN ECONOMICS AND LAW

The Double Honours Degree in Economics and Law is a programme offered jointly by the Faculty of Arts and Social Sciences and the Faculty of Law, leading to both the degrees of B.Soc.Sci.(Hons) and LLB (Hons).

Economics and Law are complementary disciplines: each contributes substantially to the understanding of the other. Many legal issues can be resolved through economic analysis, and legal rules make sense from an economics perspective. Top law schools have now included economics in their curriculum, and many law subjects, such as Corporation Law, incorporate economic analysis. To be

effective, economists working on public policy, such as competition policy, require a working knowledge of the supporting legal infrastructure.

Singapore is a regional centre for legal services, and a lot of our international legal work involves commercial, corporate and financial law. This means there is – and will continue to be – a demand for lawyers with a strong background in Economics, as well as for economists trained in law. Likely future employers are: some law firms, large commercial banks, and institutions such as the Monetary Authority of Singapore, the Media Development Authority, the

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Infocomm Development Authority, and the soon to be established Competition Authority.

The programme includes the core curricula of our Economics and Law degrees, as well as some other modules to allow students to explore beyond those areas.

Students may be admitted to the programme, on a competitive basis, in one of three ways:

1. By direct application from Junior College. These students will spend the first year in the Faculty of Law;
2. By application during their first year in the Faculty of Law;
3. By application during their first year in the Faculty of Arts and Social Sciences.

Applicants to the double degree programme must meet the admission requirements of both Faculties.

## CHINA-INDIA DEBATE

On 12 March 2005, the Economics Graduate Students Society hosted a lively forum in the Shaw Foundation Building auditorium on the future of economic leadership in Asia titled “The Big Fight 2005: China versus India: Who Will Lead?”. Attended by over 80 faculty members and students from the Economics Department and the Lee Kuan Yew School of Public Policy, the main event featured a debate between two student-faculty teams that had prepared and rehearsed their arguments in advance. Though no correspondent of *The Economist* was present, we wonder whether their seven-article survey that week on China and India was released in honour of our event.

Representing the China side were Dr Albert Hu and graduate students Bao Binbin, Li Yang, and Mridul Batra; on the India side, Dr Kripa Sridharan and graduate students Juneli Rai, Ruchika Saluja and Jason Xu-Jian. After the debate proper, moderators Adam Rachlis and Rica Sauler opened the discussion to the floor, giving audience members the opportunity to raise new points, cross-examine the debaters, and share personal insights.

The quality of discussion was enhanced by comments from a distinguished panel of faculty experts, which included Assoc Prof Lu Ding, Dr Sarah Tong, Dr Liu Haoming for China, Professor Parkash Chander, Dr Sougata Poddar, and Professor Ramkishan Rajan for India, and a trio of independent panelists, Professor Åke Blomqvist, Assoc Prof Tilak Abeyesinghe, and Assoc Prof Julian Wright.

Perhaps the most contentious moments of the forum related to the controversies surrounding democracy, human rights and economic development. Have China’s explosive growth rates come at too high a human price? Or, to the

contrary, has its approach been vindicated by having achieved the most rapid poverty relief in human history? Is India paying a “democracy tax”, or is its slower pace of growth an unavoidable consequence of its social and cultural diversity? Is democracy helpful or harmful to economic growth, or is stability all that matters? Other salient issues included the reliability and interpretation of the economic statistics and the comparability of the two economies in the first place.

No winner or loser was declared, and all sides joined together in conversation and good cheer in the luncheon that followed.

EGSS would like to thank Assoc Prof Tilak Abeyesinghe for his encouragement and support in organising the event.



Debaters at ‘The Big Fight 2005’

## ECONOMICS EXECUTIVE PROGRAMME (EEP)

The Economics Executive Programme (EEP), which started in 1992, is the executive training arm of the Department. Its recently completed programmes include:

- “Economics at Work” for Institute of Policy Development, Civil Service College, 13-14 January 2005; 11-13 April 2005. The curriculum covered Microeconomics, Macroeconomics, International Trade, Public Finance and Experimental Economics, and the participants were middle and higher level officers from the administrative service.

- “Public Economics, Market Failure, Government and Efficiency” for the Ministry of Education, 13 and 20 April 2005.

The course was designed to update economics teachers on the development of public sector economics and to guide them on the use of anecdotes, case studies, media articles and familiar experiences and situations to teach public sector economics. The inter-connection between theory and real-life policy implementation was emphasised.

## THE SINGAPORE ECONOMIC REVIEW (SER)

The *Singapore Economic Review* is a biannual journal devoted to the publication of high-quality theoretical and empirical papers on all aspects of economics with a special emphasis on the economic problems related to Asian countries. Contents of the latest issue, Volume 50, Number 1 (April 2005), are appended below. For more information on submission of manuscripts and subscription to the journal, please visit the website at <http://www.worldscinet.com/ser/ser.shtml>.

### Contents of Volume 50, Number 1 (April 2005)

*Invited Eminent Paper Series* – Modelling Memory of Economic and Financial Time Series  
*Peter M Robinson*

How Effective Are Pronatalist Benefits? A Literature Survey and a Study on Singapore’s Qualified Child Relief  
*Cheolsung Park*

Testing for Regime Switching in Singaporean Business Cycles  
*Robert Breunig, Alison Stegman*

Vertical Product Innovation and Parallel Imports  
*Changying Li*

Why Not a Volunteer Army? Reexamining the Impact of Military Conscription on Economic Growth for Singapore  
*Pak Shun Ng*

Price Control Regulation of Privatised Utilities in the United Kingdom: What Lessons for the Developing Asian Nations?  
*Moazzem Hossain*

Testing of Real Convergence in Germany in the Presence of Structural Breaks  
*L.A. Gil-Alana*

The Role of the State in the Increasingly Globalised Economy: Implications for Singapore  
*Shin Jang-Sup*

The Effect of the Semiconductor Trade Agreement on Japanese Firms  
*Craig Parsons*

## Best Wishes To ASSOCIATE PROFESSOR EUSTON QUAH

Associate Professor Euston Quah, who has been with ANUS for over 21 years left the Department on 31 May 2005. Assoc Prof Quah, known for his work and strong views on the need to price nature and other non-market goods, has taken up a new appointment as the Head of Economics at NTU's new School of Humanities and Social Sciences.

A prolific researcher, whose works have regularly appeared in international journals, and who had contributed to the first study on the economic cost of air pollution in Singapore (as acknowledged by the Ministry of Environment then) as well as the first study on the social cost of smoking in Singapore (work cited by PM Lee during the 2004 Budget in Parliament), has been Founding Director of the Singapore Centre for Applied and Policy Economics, formerly Vice-Dean of the Faculty of Arts and Social Sciences, Deputy Director of the Public Policy Programme (now the LKY School of Public Policy), and headed the Economics Department at NUS. In the Department of Economics, he was instrumental in pursuing greater research and workshop collaboration with Stockholm School of Economics, University of Nottingham, Peking University, Tsinghua University, University of Melbourne, among other major economics departments. He also started the well-regarded Economics Executive Programme which is now more than 13 years old and caters to executive workshops attended especially by senior government officers, and partnered with many international agencies such as the World Bank, Canadian International Development Research Centre, Japan International Cooperation Agency, Hans Seidel Foundation, and serviced the Singapore Cooperation Programme of the Ministry of Foreign Affairs. Known for being faculty-centered, Professor Quah works very closely with his colleagues. He has served on the boards of many committees in various Ministries, and is presently an Adjunct Senior Research Fellow at IPS, a Member of the Board of Trustees of ISEAS, Vice-President of the Economic Society of Singapore, Council Member of SIIA, and Editor of the Singapore Economic Review, a leading economics journal in and on Asia since 1956.

Assoc Prof Quah has also contributed frequently to the Straits Times over the years and appears occasionally for the TV media. A specialist in economic valuation of environmental goods, law and economics, cost-benefit analysis and evaluation of public sector projects, he was involved in many recent major government projects and

policy analysis. He is presently working on the fifth edition of the internationally well-known book 'Cost-Benefit Analysis' with the eminent economist, Emeritus Professor E. J. Mishan (formerly at the London School of Economics and regarded by academic peers as the 'authority' on the subject). The book, to be published by Routledge, UK, is expected to appear later this year.

The Department wishes Professor Quah all the best as he takes on new challenges at NTU.

Reproduced below is the speech given by Assoc Prof Euston Quah at the farewell dinner given by the Department in honour of Assoc Prof Quah at The Garlic Restaurant, Esplanade Mall on 7 May 2005.

"Thank you very much Åke for your kind remarks. Well, good evening everyone. I am honoured and deeply appreciate this get-together among colleagues and good friends. When I joined the department in my early 20s, I did not give much thought to leaving it. It was a time of youthful enthusiasm, a new discovery, and a period of only wanting to write, teach, and write. Together with Hoon Hian Teck, we argued, collaborated, discussed, and shared a common rotating physical telephone which was placed on a board on a wall between our two offices. A word about colleagues especially my seniors at the time. No offence intended here. Please be reminded that what I am going to say is based on my time as a young arrival in the department. There was the rigorous, and no-nonsense Basant Kapur with his special type of humour; the helpful and jovial Hank Lim (now with SIIA), the happy and lively Shantakumar (now part-time consultant), the strict and unassailable, Chia Siow Yue (who was Acting Head at one time and later became the Director of ISEAS), the strange and tired Ling Jin Ming (who we used to observe by counting the number of times he checks his office door! About ten times; he is now retired), the always pleasant Amina Tyabji (who is still going strong as a part-time lecturer), the non-complaining, decent, and always serving, Tay Boon Nga, the serious Francis Chan (now retired), the devout Christian trio of Tan Lin Yeok, Tsao Yuan (wife of Lee Soo Ann, former Director of IPS and later NMP) and Koh Ai-Tee, the motherly, former editor of the Singapore Economic Review



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and now living in New Zealand responding to a higher calling. Not many would know that she was my main supervisor and she took her responsibility very seriously; the less than friendly Professor Saw Swee Hock (now retired and who later became quite a popular and much sought after philanthropist), the less sociable and seldom seen academic politicians, Ow Chin Hock (who later became a Minister of State) and Augustine Tan (long-serving Member of Parliament, pastor, and who later became the Vice-Provost of SMU; now a good friend); and among the non-academic staff, the all-powerful, all-knowing and dependable Mrs Annie Koh (who was secretary to the then head of economics, and now personal assistant to the head of bio-engineering), and the betel-nut chewing, occasionally less sober but very helpful attendant, Mr. Manikam (who has sadly passed away). I shared my first Singapore durian (of course imported from Malaysia and Thailand) with Chng Meng Kng (a sagacious and witty senior colleague who later became head of department from whom I later succeeded) and Linda Low (the one colleague who writes on almost everything and who is now advisor to a middle-eastern country). Mention must also be made of my good friend and colleague, Peter Wilson, with whom I shared many moments of British wit (not easily found these days).

Professor Lim Chong Yah who was then the Head of Department and to whom we regard as “The Boss” (fatherly and wise in nature; my first encounter with him, not in person was through his Principles of Economics book which at the time was the only book that deals with theory with a local flavour - widely adopted by schools throughout Malaysia and Singapore). I had used the book like so many students as an introduction to economics. Professor Lim gave me a first friendly advice, that in Singapore, society is conservative, a gentle reference to my writings and debates on the economics of sex, love, marriage, prostitution markets, and the sort in my student days at Simon Fraser University back in Canada. These fun writings spilled into a series of articles I wrote for the Singapore Business which was later syndicated in Hong Kong through the World’s Executive Digest, and my first fun Longman book, titled Economics: Sense and Nonsense with then senior tutor David Lee (who is now CEO of Ferrel Asset Management). I was and still am very much persuaded by the economic treatises of comparative advantage, utility maximisation, benefit-cost analysis, markets or optimisation in general, coming from the works of Gary Becker, in particular - the beginning of so-called, imperialist economics in the social sciences. At the time, the new home economics was flowering and I engaged myself more seriously in much of the literature contributing to impactful works on household production valuation, definition, and measurement as evidenced by relatively good reviews and citations in the

Economic Journal and the Journal of Economic Literature. A strong believer (though somewhat biased favourably for economics naturally) is the interdisciplinary nature of most issues, challenges and problems. I persuaded the department to engage the Law Faculty to initiate the first ever law and economics course in the best traditional discipline of Chicago economics, Toronto and Miami. I taught this course in the Law Faculty for 7 years! I am happy that the course has now transformed into a fully-fledged programme on law and economics offered as a double degree between our two Faculties. In this discipline, I discovered Boon Tiong who shares a natural keen interest, and since then we have been collaborating on a number of research papers culminating in recent publications in the International Review of Law and Economics. Another major interest I have is on the environment and when I came to Singapore, I was dismayed to find that the one course that the department had for years was titled, Agricultural and Resource Economics (offered by Wong Chung Ming, a colleague with an impressive academic record from school and university days, who later graduated from Chicago but not too impressive sociable traits). Predictably, there were no students! I changed the title and course content to Environment and Resource Economics for which the enrolment then began with an average of 40 students over the years rising to more than 80 students at one time in later years. The course is now split into two with Environment Economics and Resource Economics being taught separately with the arrival of energy economist, Chang Youngho (a good colleague who is often misquoted!).

I have done, I would say more than my fair share of administration which I think while burdensome and worrisome at times, I feel a sense of great satisfaction whenever life improves for my colleagues, and the department and Faculty moves ahead. Not many of you would remember that at one time when I was sub-dean (now called Assistant Dean), I had to work with interior designers, architects, landscapers, and sub-contractors in creating, building, decorating, and furnishing the Shaw Foundation Building which now stands as Block AS7. My responsibilities included all office and room space in the Faculty of Arts and Social Sciences, and part of my job then was to check on departments’ usage of physical space to ensure efficiency and non-abuse. This included surprise checks from time to time! I was then functioning like a landlord but without the legal authority of collecting rents. Incidentally, I wanted a cascading waterfall over the giant rock just behind the Shaw Building from Block AS5 to AS7 but had to put that down as a wish list due to financial constraints. Later, as Vice-Dean of Research, I streamlined many aspects of research applications.

I was happy to be able to be put into a position to shape things, and change outmoded and hindersome practices which we used to complain among young senior tutors, my contemporaries, like Ngee Choon, Kim Lian, Boon Tiong, Hian Teck (now with SMU), Jong Say (who is now with Melbourne), David Lee, Gan Chin Lee (now with UOB) and Anthony Chin. I also took my real first lessons in the appreciation of wine! I served under the very able, long-serving, energy-infusing and moving Dean and Singapore's first poet, Professor Edwin Thumboo, who in periods of destressing will teach me the fine art of drinking liquid gold, wine and with it the sanity of life. I returned to my more sober sense in my second serving in the Deanery when tea-drinking became the norm of the day with the arrival of the new Dean, notable military historian, Professor Ernest Chew. I was privileged to serve with Professor Tong Chee Kiong (as a fellow sub-dean under Dean Thumboo) and who later became Dean after Professor Ernest Chew. My fond memories with another contemporary deanery colleague was Professor Lily Kong (who later became Dean succeeding Professor Tong and now Vice-Provost, and with whom I later served under as Acting Head of Economics) and last but not least was our current Dean, Assoc Prof Tan Tai Yong (another fellow colleague in the Deanery under Professor Ernest Chew). I remember Victor Savage (the Vice-Dean, later Acting Dean, who can sing, has a good sense of humour, and certainly is one of the more livelier administrators who had contributed much to both the Faculty and in particular to the Geography Department. He is one of the few who consciously attempt to motivate people through good human touch, a strong believer of comradeship. We all worked hard, played or joked hard at times, but most importantly, we treasured our friendships that in times of crisis, we could count on one another.

The feelings that go deepest are the most difficult to express. Some of you have mentored me, some of you have taught me, shared research ideas, and some of you stood by me in times of anxieties. I will always remember the fond memories of collegiality, of close friendship, of being a full-time colleague. This is not a farewell as good friendship adheres throughout life and transcends any institution. It is people that matters and not inanimate objects! Healthy competition between organisations and institutions is good as it brings creative thinking, new explorations, greater diversity, options, and greater appreciation of its staff but one must never forget, in my view the sacrosanct of good friendship. May I once again thank all of you for this gathering and in particular, to Åke who had organised it. While I certainly wish for the continued growth of the department with all its good expectations, I hope that we give a place to our traditions and maintain our good collegiality. May I also wish my dear friend and colleague, Shandre Thangavelu all the best as he succeeds me and

takes on the challenges of being Director of the newly formed Singapore Centre for Applied and Policy Economics (or SCAPE in short!) How the name of this new research centre came about, I will tell you all another time. It remains for me to express my deep appreciation to NUS for all the wonderful opportunities that have been given to me over these 21 years as well as the trust it has placed on me by the numerous senior administrative appointments. Thank you all."

## *A warm welcome to the Department:*

- Professor Ng Yew-Kwang who joined the Department on 20 June 2005 on the Goh Keng Swee Professorship
- Dr Ng Seok Hean who joined the Department on 20 June 2005 on a Visiting Senior Fellowship
- Professor Partha Sen who joined the Department on 1 July 2005 on a Visiting Professorship
- Assoc Prof Indranil Chakraborty who joined the Department on 1 July 2005
- Dr Calla Jae Wiemer who joined the Department on 1 July 2005 on a Visiting Fellowship
- Dr Sanja Samirana Pattnayak who joined the Department on 1 July 2005 as a Singapore Millenium Foundation Post-Doctoral Fellow

## *Thank you and best wishes to the following staff who have left the Department:*

- Professor Daniel Friedman who was with the Department on a Visiting Professorship for two weeks from 4 April 2005
- Professor John Whalley who was with the Department on a Visiting Professorship from 10 January 2005 to 25 February 2005
- Professor Sudipto Bhattacharya who was with the Department on the Tan Chin Tuan Professorship in Banking and Finance from 10 January 2005 to 9 May 2005
- Assoc Prof Kim Yoonbai on 18 May 2005
- Ms Helen Lee May Heong on 24 May 2005
- Assoc Prof Euston Quah on 31 May 2005

## NEW MODULES OFFERED IN ACADEMIC YEAR 2005-2006

### *EC3385 Maritime and Shipping Economics*

International transportation has evolved into a complex system involving ocean carriers, ports, terminals and multimodal transport intermediaries. In such networks, major container hubs, such as that of Singapore, play a crucial role as 'nodes' and trans-shipment centres. Nowadays, the optimization of global supply chains requires a holistic approach to shipping through the study of what has come to be known as Maritime Economics and Logistics (MEL). The course follows this approach, focusing on liner (container) shipping, its operations, structure and regulatory environment.

### *EC5319 Experimental Economics*

This course introduces students to the basic research methodologies in Experimental Economics. The course also provides a survey of the most significant results obtained in Economics from human experiments. Students will learn all facets of conducting experimental research from problem formulation to experimental design to the conducting of pilot experiments. The structure of the course includes seminars, laboratory participation, and a student project.

### *EC5361 Labour Economics*

The objective of the course is to acquaint students with modern topics, modeling strategies, econometric methods, and empirical work in the field of labour economics. The first half of the course will focus on fundamentals such as

labour supply, labour demand and equilibrium wage determination. In the latter half of the course the focus will shift to more topical subjects such as discrimination, immigration, and unemployment.

### *EC5660 Independent Study Module*

Independent research plays an important role in graduate education. The Independent Study Module is designed to enable the student to explore an approved topic in Economics in depth. The student should approach a lecturer to work out an agreed topic, readings, and assignments for the module. A formal, written agreement is to be drawn up, giving a clear account of the topic, programme of study, assignments, evaluation, and other pertinent details. Head's and/or Graduate Coordinator's approval of the written agreement is required. Regular meetings and reports are expected. Evaluation is based on 100% Continuous Assessment and must be worked out between the student and the lecturer prior to seeking departmental approval.

### *EC6361 Advanced Labour Economics*

The objective of the course is to acquaint students with modern topics, modeling strategies, econometric methods, and empirical work in the field of labour economics. This module will provide a solid empirical and theoretical grounding in many areas of labour economics, and prepare students to write a dissertation in the field.

## ALUMNI ACTIVITIES

A series of NUS Economics alumni activities is being planned for the next 12 months.

- (a) breakfast/evening talks on topical interest topics
- (b) homecoming with former teachers and senior alumni.

Those interested in being kept informed of these events can give their contact details to Ms Nicky Kheh at [ecsklc@nus.edu.sg](mailto:ecsklc@nus.edu.sg).

Senior alumni who want to give breakfast/evening talks can contact Dr Lee Soo Ann at [ecsleesa@nus.edu.sg](mailto:ecsleesa@nus.edu.sg). Dr Lee would also like to hear from alumni as to which lecturers they would like to meet up with, in homecoming events. Conversely, former lecturers can inform Dr Lee as to their interest in attending such events which are useful for networking purposes. Three breakfast/evening talks and two homecoming events are envisaged for the next 12 months at appropriate places in the city, including NUSS Guild House in Suntec City.



## GRADUATE PROGRAMME

The total enrolment of the Department's Graduate Programme at the start of the 2004/2005 academic year was 162. We had 43 PhD candidates, 45 students were enrolled in the M.Soc.Sci. (by Research), 25 in the M.Soc.Sci. (Economics) stream and 49 students in the M.Soc.Sci. (Applied Economics) programme.

The following students of the Department were conferred postgraduate degrees by research in July 2005.

### PhD

| Name              | Topic  | Supervisor  |
|-------------------|--|---|
| Hazelyn Yuen Ling | The Prospects of Monetary Integration in East Asia   | Assoc Prof Zhang Zhaoyong,<br>Assoc Prof Peter Wilson<br>and<br>Assoc Prof Tilak Abeysinghe |
| Lean Hooi Hooi    | Stochastic Dominance in Stock Market   | Assoc Prof Wong Wing<br>Keung and<br>Professor Parkash Chander                              |
| Sanja Pattnayak   | Economic Liberalization and Indian Manufacturing Industries:<br>Productivity Spillovers and Linkages | Professor Mukul Asher and<br>Assoc Prof Shandre<br>Thangavelu                               |

### M.Soc.Sci Candidates by Research

| Name                                | Topic  | Supervisor   |
|-------------------------------------|--|--|
| Benjamin A. Roberts                 | Analysis of the Proposed China-Asean Free Trade Area: A Gravity Model and RCAI Approach                                    | Assoc Prof Jose<br>Tongzon and<br>Assoc Prof Anthony<br>Chin |
| Cheng Chai Kiet,<br>Terence         | Economic Evaluation of an Alternative Strategy for the Diagnosis of Chest Pains  | Professor Åke Blomqvist                                      |
| Ho Kin Yip                          | Modelling Long Memory on Exchange Rate Volatility  | Assoc Prof Tsui Ka<br>Cheng, Albert                          |
| Kuhan Harichandra                   | Institutional Investors and Financial Sector Development and Economic Growth   | Assoc Prof Shandre M.<br>Thangavelu                          |
| Lawrence<br>Ravishankar<br>Sunderaj | The Internalization of Natural Capital Depreciation in a Selected Macroeconomic Model: Implications for Short-Run Analysis | Assoc Prof Jesuthason<br>Thampapillai                        |
| Li Jun                              | China's Integration into the World Economy and Impact on Economic Links with Hong Kong                                     | Assoc Prof Wong Chung<br>Ming                                |
| Naris Sathapoldeja                  | Tax Policy with Hyperbolic Discounting   | Dr Cheolbeom Park  |
| Sim Cheng Siang,<br>Nicholas        | Two Essays on Indeterminacy, Externalities and Growth  | Dr Ho Kong Weng  |
| Swee Eik Leong                      | Economic Incentives and Gender Discrimination in Schooling: Theory and Evidence from Thai Hill Tribes                      | Professor Parkash<br>Chander                                 |
| Wu Heng                             | Port Privatization, Efficiency and Competitiveness: Some Empirical Evidence from Container Ports/Terminals                 | Assoc Prof Jose<br>Tongzon                                   |
| Wu Shuanglin                        | Unemployment Insurance and its Effects on the Duration of Unemployment Spell   | Dr Liu Haoming   |
| Xu Jun                              | Revisit the Volume Versus GARCH Effects – Evidence From China Stock Markets  | Assoc Prof Wong Wing<br>Keung                                |

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| Xu Wen     | Long-run Effects of Government Policy in the Growth Model with Creative Destruction | Assoc Prof Zeng Jinli            |
| Yu Ting    | Empirical Examination of IPO Underpricing in Chinese A-Share Market                 | Professor Tse Yiu Kuen           |
| Zhang Feng | Under-Pricing and Long-Run Performance of IPOs in China                             | Assoc Prof Tsui Ka Cheng, Albert |
| Zhang Xin  | The Aftermarket Performance of Chinese A Share IPOs                                 | Dr Chang Wayne                   |

## STAFF SEMINARS

| Presenter   | Topic   | Date             |
|---|---|------------------|
| Professor Naoyuki Yoshino,<br>Keio University         | Optimal Exchange Rate Mechanism   | 20 January 2005  |
| Professor Zane Spindler,<br>Simon Fraser University   | A Public Choice Perspective on the Origins of the Pacific War and Nanshin: Budget- Maximising Behavior, the Imperial Japanese Navy and the Origins of the Pacific War | 25 January 2005  |
| Professor Sudipto Bhattacharya                        | Knowledge Licensing, Patents, and Optimal Organization of Research and Development  | 27 January 2005  |
| Nicolas Jacquet,<br>University of Pennsylvania        | On the Segmentation of Markets  | 1 February 2005  |
| Visiting Professor John Whalley                       | Chinese Renminbi Revaluation and the Optimal Exchange Rate  | 3 February 2005  |
| Dr Damon Clark,<br>University of California, Berkeley | Politics, Markets and Schools: Quasi-Experimental Evidence on the Impact of Autonomy and Competition from a Truly Revolutionary UK Reform                             | 7 February 2005  |
| Dr Sumit Agarwal,<br>Bank of America                  | The Response of Consumer Spending and Debt to Tax Rebates - Evidence from Consumer Credit Data  | 15 February 2005 |
| Brishti Guha,<br>Princeton University                 | Intermediation and Honesty: Corporate Cheating and Auditor Involvement  | 16 February 2005 |
| Dr Ting Gao,<br>University of Missouri                | International Outsourcing, Innovation and Growth  | 18 February 2005 |
| Professor S. Katayama,<br>Kobe University             | Cost Heterogeneity and the Destination of Foreign Direct Investment   | 23 February 2005 |
| Assoc Prof Katsuya Takii,<br>Osaka University         | Limited Attention, Interaction and the Growth of a Firm   | 24 February 2005 |
| Dr Indranil Chakraborty,<br>University of Oklahoma    | An Analysis of Large Multi-Unit Auctions with Bundling  | 1 March 2005     |
| Seungmoon Choi,<br>University of Wisconsin-Madison    | Regime-Switching Univariate Diffusion Models of the Short-Term Interest Rate  | 2 March 2005     |

|  |   |               |
|--|---|---------------|
| Dr Linda A. Toolsema,<br>University of Groningen                   | Competition with Mandatory Labelling of Genetically Modified Products   | 10 March 2005 |
| Dr Cheolbeom Park  | Stock Returns and the Dividend-Price Ratio: Has the Predictive Relation Been Stable during the 1990s?                                   | 15 March 2005 |
| Kameshwari Shankar,<br>Cornell University                          | Job Assignments and Turnover in R&D Intensive Industries: Favourable Selection in the Labour Market                                     | 21 March 2005 |
| Professor Jerry Hausman,<br>MIT                                    | Consumer Benefits from Increased Competition in Shopping Outlets: Measuring the Effect of Wal-Mart<br><i>(Joint Seminar with SCAPE)</i> | 22 March 2005 |
| Dr Emiel Maasland,<br>Erasmus University Rotterdam                 | Auctions with Financial Externalities   | 31 March 2005 |
| Dr Anurag Banerjee,<br>University of Southampton, UK               | Skating on Thin Ice: Rule Changes and Team Strategies in the NHL  | 4 April 2005  |
| Professor Daniel Friedman,<br>University of California, Santa Cruz | A Tractable Model of Reciprocity and Fairness   | 6 April 2005  |
| Visiting Professor Ruqu Wang                                       | Switching Costs in Infinitely Repeated Games  | 7 April 2005  |
| Dr Jingfeng Lu   | Auctions Design with Private-Information Costs of Valuation Discovery   | 12 April 2005 |
| Dr Changhui Kang   | Classroom Peer Effects and Academic Achievement: Quasi-Randomization Evidence from South Korea  | 14 April 2005 |
| Professor Timo Teräsvirta,<br>Stockholm School of Economics        | Panel Smooth Transition Regression Model and an Application to Investment under Credit Constraints                                      | 6 May 2005    |

## INDUSTRIAL ORGANISATION LUNCHTIME WORKSHOP SERIES

The Industrial Organisation Lunchtime Workshop Series had three meetings during Semester II of the 2004/2005 Academic Year. Those who would like to be added to the associated mailing list or who would like to give a talk should contact Assoc Prof Julian Wright.

| Presenter  | Title  | Date            |
|--|--|-----------------|
| Assoc Prof Julian Wright   | Tacit Collusion with Price Matching Punishments  | 3 February 2005 |
| Hemant Bhargava,<br>University of California, Davis, Graduate School of Management | Performance-Contingent Pricing: A Competitive Pricing Strategy for IT Goods and Services | 16 March 2005   |
| Visiting Professor Ruqu Wang   | A Note on Information and Market Design  | 24 March 2005   |

## CONFERENCES

Conferences attended by our staff from January to June 2005 are given below:

| Staff Name   | Conference Title  | Title of Paper  | Venue                               | Date                |
|--|---|---|-------------------------------------|---------------------|
| Assoc Prof Aditya Goenka (joint with M. Boschi)      | North American Winter Meetings of the Econometric Society (ASSA meetings)                   | International Capital Movements and Transmission of Financial Crises  | Philadelphia, USA                   | 7-9 January 2005    |
| Dr Hu Guangzhou, Albert                              | 2005 HKEA/WEAI Pacific Rim Conference   | Assessing FDI Spillovers with Firm Heterogeneity  | Hong Kong                           | 14-16 January 2005  |
| Assoc Prof Aditya Goenka (joint with M. Boschi)      | Summer Workshop in Macroeconomics   | International Capital Movements and Transmission of Financial Crises  | Auckland, New Zealand               | 14-16 February 2005 |
| Assoc Prof Julian Wright (with Yuanzhu Lu)           | 3 <sup>rd</sup> Summer Workshop in Industrial Organization                                  | Tacit Collusion with Price Matching Punishments   | University of Auckland, New Zealand | 25 February 2005    |
| Assoc Prof Aditya Goenka (joint with Melisso Boschi) | 10 <sup>th</sup> Australasian Macroeconomics Workshop                                       | International Capital Flows and the Transmission of Financial Crises  | Melbourne, Australia                | 30-31 March 2005    |
| Assoc Prof Aditya Goenka                             | 14 <sup>th</sup> European Workshop on Equilibrium Theory                                    | Are Sunspots Inevitable?  | Zurich, Austria                     | 21-22 May 2005      |
| Aamir Hashmi   | 39 <sup>th</sup> Annual Meeting of the Canadian Economic Association                        | Competition and Innovation: An Alternative Explanation for the Inverted-U Relationship and Some Policy Implications | Ontario, Canada                     | 29 May 2005         |
| Dr Sougata Poddar                                    | CORE  | Music Product as Durable Good and Online Piracy   | Belgium                             | 30 May 2005         |
| Assoc Prof Aditya Goenka (Joint with Stefano Matta)  | Journées d'Economie Publique Louis-André Gérard-Varet - Public Economic Theory Meeting 2005 | Manipulation of Endowments and Sunspot Equilibrium  | Marseille, France                   | 16-18 June 2005     |
| Dr Sougata Poddar                                    | Public Economic Theory Conference   | Music Product as Durable Good and Online Piracy   | Marseille, France                   | 16 June 2005        |
| Assoc Prof Aditya Goenka (Joint with Stefano Matta)  | 2 <sup>nd</sup> Asian General Equilibrium Theory Workshop                                   | Manipulation of Endowments and Sunspot Equilibrium  | Tokyo, Japan                        | 25 June 2005        |

## STAFF PUBLICATIONS

### MEDICAL SAVINGS ACCOUNTS IN SINGAPORE: HOW MUCH IS ADEQUATE?

By Chia Ngee Choon and A. K. Tsui  
*Journal of Health Economics (forthcoming)*

While many studies have examined the cost-containment aspect of medical savings accounts (MSA), few have investigated the adequacy of MSA to finance healthcare expenditure. This paper estimates the present value of lifetime healthcare expenses (PVHE) of Singaporean male and female elderly upon retirement at age 62. The estimation involves calibrating the stream of future healthcare expenditure; stochastic forecasting of cohort survival probabilities; discounting the projected lifetime healthcare expenditure. Estimated values of the PVHE under various scenarios are used to assess the adequacy of the government-decreed minimum saving to be maintained in the MSA.

### DYNAMIC EFFICIENCY IN THE TWO-SECTOR OVERLAPPING GENERATIONS MODEL

By Emily T. Cremers  
*Journal of Economic Dynamics and Control (forthcoming)*

This paper examines dynamic efficiency in the context of a two-sector overlapping generations model. First, conditions for dynamic efficiency in a centrally planned economy are derived. Then, in a competitive environment, the implications of dynamic (in)efficiency for the steady state relative price and steady state welfare are demonstrated. For the special case of a log-linear world, the golden rule savings rate is identified along with the restrictions on parameters that yield dynamically efficient steady states. The results are further demonstrated via a welfare analysis of a simple tax/subsidy scheme.

### R&D AND TECHNOLOGY TRANSFER: EVIDENCE FROM CHINA'S LARGE AND MEDIUM SIZE ENTERPRISES

By Hu Guangzhou, Albert, Gary H. Jefferson and Qian Jinchang  
*Review of Economics and Statistics (forthcoming)*

In bridging the technology gap with the OECD nations, developing economies have access to three avenues of technological advance: domestic R&D, technology transfer, and foreign direct investment. This paper examines the contributions of each of these avenues, as well as their interactions, to productivity within Chinese industry. Based on a large data set for China's large and medium-size enterprises, the estimation results show that in-house R&D significantly complements technology transfer – whether of domestic or foreign origin. Foreign direct investment, which we assume is an important channel of proprietary technology transfer, does not facilitate the transfer of market-mediated foreign technology.

### A POPULATION-BASED ANALYSIS OF HEALTH CARE UTILIZATION OF PERSONS WITH BACK DISORDERS: RESULTS FROM THE CANADIAN COMMUNITY HEALTH SURVEY 2000-2001

By Lim Kim Lian, Philip Jacobs, Scott Klarenbach Spine, USA:  
*Lippincott Williams & Wilkins (forthcoming)*

Person-level data from the 2000-2001 Canadian Community Health Survey (CCHS), a nation-wide cross-sectional survey of

health determinants, health status, and health system utilization of Canadians, were used to analyze the utilization of a variety of health care services for persons with and without a chronic back disorder, and to identify factors associated with specific patterns of health care resource use. A series of binary logistic regressions examining health care resource utilization were performed on a full sample of persons over age 20 ( $n=113,299$ ), as well as a restricted sample ( $n=36,713$ ), with attention focused on subjects with a single diagnosis of a chronic back disorder ( $n=4158$ ). Persons with chronic back problems were more likely to utilize physician resources (OR = 1.2, 95% CI 1.1 - 1.2) and non-physician resources (OR range = 2.1 to 3.6) compared with persons without the condition, with chiropractic care having an OR of 3.6 (95% CI 3.5 – 3.8). Higher socioeconomic status, the presence of activity-limiting pain, and depressive symptoms were associated with a significant increase in utilization of almost all health care services, except for chiropractic care, which appears to be used by those with less severe symptoms. Lower socioeconomic status was associated with significantly lower receipt of services for almost all health care providers.

### INTERNATIONAL TRADE AND CULTURAL DIVERSITY WITH PREFERENCE SELECTION

By Venkatesh Bala and Ngo Van Long  
*European Journal of Political Economy, Volume 21, Number 1, January 2005, pages 143-162.*

We consider the evolution of preferences when trade occurs between two countries. We show that if one country is much larger than the other, its preferences can eventually take over the preferences of the second country. This result may provide an explanation of why small countries sometimes exclude certain goods (especially those related to culture) from trade agreements. We also show that when the sensitivity of preferences to the relative price is high, the distribution of preferences can fluctuate cyclically over time.

### SELECTIVE PUNISHMENT OF POLLUTERS: AN INF-CONVOLUTION APPROACH

By Ngo Van Long and Antoine Soubeyran  
*Economic Theory, Volume 25, Number 2, February 2005, pages 421-454.*

We consider an asymmetric polluting oligopoly. We demonstrate that the optimal tax rates per unit of emissions are not the same for all firms. We call this property selective penalization. Our Optimal Distortion Theorem states that the efficient tax structure requires that high cost firms pay a higher tax rate. Our Pro-Concentration Motive Theorem states that optimal taxes increase the concentration of the industry, as measured by the Hershfindahl index. Our Magnification Effects indicate that the variance of marginal costs is magnified by a factor which depends on the marginal cost of public funds.

### OUTSOURCING AND TECHNOLOGY SPILLOVERS

By Ngo Van Long  
*International Review of Economics and Finance, Volume 14, Number 3, February 2005, pages 297-304.*

This paper presents a model that helps explain incomplete

continued on page 14

outsourcing in the presence of technology spillovers. Outsourcing may require training of workers in the low wage economy. Such training yields spillover benefits to rival firms located in the low wage economy. The outsourcing firm must balance the marginal gain (cost saving) with the marginal cost (lowering rivals' cost).

#### FRAGMENTATION AND SERVICES

*By Ngo Van Long, Raymond Riezman and Antoine Soubeyran  
North American Journal of Economics and Finance, Volume 16,  
Issue 1, March 2005, pages 137-152.*

We develop a model that explores the link between services and fragmentation. In our model components used in manufacturing process are made with services and labor. Low foreign wages create an incentive to outsource component production (fragmentation). However, the need for services in manufacturing process can play a role in limiting fragmentation. Although advanced economies have higher costs of supplying simple services, the size of their home market offers a greater variety of services. As a result, the price of aggregate services tends to be lower than in less developed economies. When services are not tradable, advanced economies will tend to produce components that are service-intensive, and outsource components that are less service-intensive and more labor intensive to developing countries. Complete free trade in services, however, eliminates the home market effect, and, in the absence of the Dornbush-Fischer-Samuelson type of comparative advantage, will lead to complete outsourcing of components.

#### INSECURE PROPERTY RIGHTS AND GROWTH: THE ROLES OF APPROPRIATION COSTS, WEALTH EFFECTS, AND HETEROGENEITY

*By Ngo Van Long and Gerhard Sorger  
Economic Theory (forthcoming)*

We extend the model of insecure property rights by Tornell and Velasco (1992) and Tornell and Lane (1999) by adding three features: (i) extracting the common property asset involves a private appropriation cost, (ii) agents derive utility from wealth as well as from consumption, and (iii) agents can be heterogeneous. We show that both an increase in appropriation cost and, when costs vary across agents, an increase in the degree of heterogeneity of these costs reduce the growth rate of the public capital stock. We also show that, in the interior equilibrium, the private asset can have either a lower or a higher money rate of return than the common property asset.

#### TRADE, WAGE GAPS AND SPECIFIC HUMAN CAPITAL ACCUMULATION

*By Ngo Van Long, Raymond Riezman and Antoine Soubeyran  
Review of International Economics (forthcoming)*

We develop a new framework for the analysis of the impact of trade liberalization on the wage structure. Our model focuses on the decision of workers to accumulate firm-specific skills, by on-the-job training, knowing that this means their future wages will have to be negotiated, and that the outcome of negotiation will depend on the profitability prospect of firms operating in a new trading environment. We show that trade liberalization may reduce the welfare of a developing country because of its adverse effect on skill accumulation. We also explore the effects of trade liberalization on the wage gap between skilled and unskilled workers.

#### OVERCOMING NATURAL RESOURCE CONSTRAINTS THROUGH R&D

*By J. P. Amigues, Ngo Van Long and M. Moreau  
Journal of Sustainable Development (forthcoming)*

We study the optimal policies of R&D in the context of a resource-exploiting economy. We distinguish two cases: non-renewable resources, and renewable resources. In the first case we show that it is useful to construct an index of scarcity, which is the product of the level of technical know-how and the aggregate stock of resources. Provided that the rate of discount is not too high, there exists a critical level of this index, below which one must maximize the rate of investment in R&D. Starting from this critical level, it is possible to maintain a constant rate of consumption, by substituting knowledge for natural resources. In the case of renewable resources, we show that the optimal policy is to give priority to the production of the consumption goods, and the rates of investments in R&D are determined residually.

#### CAPACITY UTILIZATION, INCOME TRANSFER, AND INVESTMENT IN ENVIRONMENTAL QUALITY

*By Ngo Van Long  
Journal of Environmental Modeling and Assessment (forthcoming)*

This paper characterises the optimal use of productive capacity and optimal investment in environmental quality when the latter has a positive impact on the production process. We then extend the model to the case of two countries playing a non-cooperative dynamic game. The Nash equilibrium turns out to be a dominant equilibrium. Since this equilibrium is not Pareto efficient, we show how one country may bribe the other to achieve a better outcome.

#### TOWARD A THEORY OF JUST SAVINGS

*By Ngo Van Long  
In Intergenerational Equity and Sustainability, edited by J. Roemer and K. Suzumura, London, UK: Palgrave (forthcoming)*

We review Rawls' objection to the direct application of the difference principle to intergenerational equity, and propose some adjustments to the difference principle so as to pin down the concept of just savings. Some implications of our proposed adjustments will be examined using economic models. We also compare our approach with those of several economists who have proposed some formal models to deal with the questions of just savings.

#### HOW EFFECTIVE ARE PRONATALIST BENEFITS? A LITERATURE SURVEY AND A STUDY ON SINGAPORE'S QUALIFIED CHILD RELIEF

*By Cheolsung Park  
Singapore Economic Review, Volume 50, Number 1, pp. 9-23.*

This paper reviews the existing literature on impacts of pronatalist benefits on fertility in various countries, and estimates the impact of the Qualified Child Relief (QCR) on the total fertility rate (TFR) of Singapore. The studies surveyed in this paper generally find that pronatalist incentives contribute to raising the fertility rate, but only to a limited extent. In Singapore a 1 percent increase in the QCR is estimated to increase the TFR by 0.1 to 0.2 percent. Singapore's fertility rate is also found to be positively correlated with men's earnings and infant mortality rate, while negatively correlated with women's earnings and the unemployment rate.

Evidence that the New Population Policy of 1987 has been effective in raising the fertility rate is also found.

### RISK POOLING BETWEEN HOUSEHOLDS AND RISK-COPING MEASURES IN DEVELOPING COUNTRIES: EVIDENCE FROM RURAL BANGLADESH

By Cheolsung Park

*Economic Development and Cultural Change (forthcoming)*

Using data from rural Bangladesh, we test whether income risks are pooled among villagers, between neighboring households, and between related households living in different villages. We find evidence that risks to food consumption are pooled between neighboring households and between related households, but not among villagers. As for non-food consumption, we find little evidence of risk pooling, except between unrelated neighboring households. We also find that while households belonging to a neighborhood network do not take any special measure during an economic hardship, those not belonging to any try to smooth consumption by selling off livestock and other assets and by getting interest-free loans. Negative income shocks are found to have little effect on labor supply or private transfers.

### A TEST FOR SYMMETRY WITH LEPTOKURTIC FINANCIAL DATA

By Gamini Premaratne and Anil Bera

*Journal of Financial Econometrics, Spring 2005; Volume 3, Number 2, pp. 169-187.*

Most of the tests for symmetry are developed under the (implicit or explicit) null hypothesis of normal distribution. As is well known, many financial data exhibit fat tails, and therefore commonly used tests for symmetry (such as the standard  $\sqrt{b_1}$  test based on sample skewness) are not valid for testing the symmetry of leptokurtic financial data. In particular, the  $\sqrt{b_1}$  test uses third moment, which may not be robust in presence of gross outliers. In this article we propose a simple test for symmetry based on the Pearson type IV family of distributions, which take account of leptokurtosis explicitly. Our test is based on a function that is bounded over the real line, and we expect it to be more well behaved than the test based on sample skewness (third moment). Results from our Monte Carlo study reveal that the suggested test performs very well in finite samples both in terms of size and power. Simulation results also support our conjecture of the tests to be well behaved and robust to excess kurtosis. We apply the test to some selected individual stock return data to illustrate its usefulness.

### THE USE OF CERTIFICATION AND ECOLABELLING AS A MARKET BASED POLICY INSTRUMENT FOR BIODIVERSITY MANAGEMENT

By Yohanes Eko Riyanto and Paulo A. Nunes

*In Environment, Information and Consumer Behavior, Signe Krarup and Clifford Russel (eds), Edward Elgar, 320 pp, January 2005.*

Biodiversity provides a wide range of benefits to human activities. Most of biodiversity benefits exhibit a public good character, i.e. non-rivalry in consumption and non-exclusivity, for which no market price is available. This may lead to a market failure. In this paper, we address the issue of market failure resulted from

the non-existence of (market) prices for biodiversity and consider certification/ecolabelling policy to cope with it. More specifically, we critically analyze the role of certification/ ecolabelling as an information provision instrument. We provide a comprehensive exploration of the basic foundations and crucial issues that underpin the design of a certification and ecolabelling policy.

### ECONOMIC REFORM AND PRODUCTIVITY GROWTH IN INDIAN MANUFACTURING INDUSTRIES: AN INTERACTION OF TECHNICAL CHANGE AND SCALE ECONOMICS

By Sanja S. Pattanayak and Shandre M. Thangavelu

*Economic Modelling (forthcoming)*

This paper studies the effects of the key economic reforms of 1991 on the Indian manufacturing industries using a panel of manufacturing industries. A Translog cost function is used to analyze the production structure in terms of biased technical change and economies of scale. A panel consisting of 121 Indian manufacturing industries from 1982 to 1998 was used in our estimation. The results of our paper support the evidence that there are economies of scale (only moderate) in the Indian manufacturing industries and it has been exploited after the key economic reforms in 1991. Most of the industries in our study revealed bias technology change and majority of the industries have experienced capital-using technical change. This suggests that the key economic reforms of liberalizing the capacity licensing regime that allows greater investment in capital goods will have a positive impact on productive performance of the industries if the price of capital does not substantially increase after the economic reforms. We observe TFP improvements for most of the industries after the 1991 reform initiatives, which support the evidence of improvements in economic efficiency after the key reform initiatives of the 1991.

### BILATERAL "WTO-PLUS" FREE TRADE AGREEMENTS: THE WTO TRADE POLICY REVIEW OF SINGAPORE 2004

By Shandre M. Thangavelu and Toh Mun Heng

*The World Economy (forthcoming)*

The World Trade Organisation's 2004 Trade Policy Review of Singapore (WTO-TPR Singapore 2004) depicts the small and outward-oriented economy as one of the most open country to international trade and investment. The review highlights the benefits of the outward-oriented strategy that has enabled the Singapore economy to weather recent external shocks such as the Asian financial crisis to the SARS and to the recent unfavourable conditions in the Middle East. In particular, the report commended Singapore's efforts on its liberalization of the services sector and its economic benefits to consumers and global trade. However, the WTO-TPR Singapore 2004 highlights several key areas of concerns: (a) the commitment to multilateral agreements with the rising number of bilateral free trade agreements signed by Singapore and (b) the lack of growth of total factor productivity, a key indicator for long-run efficiency of the economy. The paper addresses the above key concerns raised in the WTO's TPR of Singapore in terms of its commitment to global trade in terms of WTO-plus bilateral FTAs, which intends to support multilateral trading system, and its overall industrial strategies to raise its competitiveness.

### ASSESSING SINGAPORE'S EXPORT COMPETITIVENESS THROUGH DYNAMIC SHIFT-SHARE ANALYSIS

By Peter R D Wilson, Ting Su Chern, Tu Su Ping and Edward Robinson

*The ASEAN Economic Bulletin (forthcoming)*

This paper uses dynamic shift-share analysis to examine Singapore's export performance in electronics and chemicals in the export markets of the USA, European Union and Japan over the period 1988-2001. It compares Singapore's export competitive position against a group of reference economies: China, Hong Kong, Korea, Malaysia and Taiwan, which are close competitors in these markets. Previous studies on Singapore using shift-share methods have tended to focus on the one or two-digit export classification. By contrast, the present paper looks at specific three-digit electronics categories and chemicals which are particularly important for analysing Singapore's current and future export strengths and weaknesses. Our findings identify 1996 as a turning point, in which Singapore's net positive gains in electronics exports compared to the reference economies shifted towards losses, but this need not be a problem if Singapore can continue to evolve from exporting final electronics products to the developed markets, to supplying higher-end intermediate electronics components to support assembly-type operations in the other East Asian economies. Chemicals have also emerged as a possible new source of growth within the manufacturing sector.

### PROSPECTS FOR ASIAN MONETARY COOPERATION AFTER THE ASIAN FINANCIAL CRISIS: PIPEDREAM OR POSSIBLE REALITY

By Peter R D Wilson

In F. Sjöholm and Jose Tongzon (eds), *Institutional Change in Southeast Asia*, London: Routledge, 2005.

This chapter re-assesses the prospects for greater monetary integration in Asia in the wake of the Asian financial crisis of 1997. The Asian crisis highlighted the absence of well-developed supranational institutions in Asia to provide early warning signals of impending currency or balance of payments problems, access to unconditional funds to cope with financial problems, and a common defensive mechanism to deal with speculative movements in exchange rates. Since 1997 there have been a number of initiatives to enhance monetary cooperation in the region including a Japanese proposal for an Asian Monetary Fund, the Chiang Mai Initiative at the Asean+3 meeting in May 2000, the Kobe Research Project, and the currency swap agreements and surveillance machinery initiated at the Asian Development Bank Meeting in Honolulu in May 2001. We find that whilst a common monetary and exchange rate policy in east Asia is unlikely in the foreseeable future, until the net economic benefits of giving up unilateral exchange rate regimes are more apparent, a good case can be made for placing responsibility for the functions of macroeconomic surveillance and regional resource pooling within a permanent institution which could evolve over time into a fully-fledged Asian Monetary Fund with its own Asia-specific rules on conditionality.

### INCOME RANKING AND CONVERGENCE WITH PHYSICAL AND HUMAN CAPITAL AND INCOME INEQUALITY

By Jie Zhang

*Journal of Economic Dynamics and Control*, Volume 29, pp. 547-566.

This paper presents an overlapping generations model with physical and human capital and income inequality. It shows that inequality impedes output growth by directly harming capital accumulation and indirectly raising the ratio of physical to human capital. The convergence speed of output growth equals the lower of the convergence speeds of the relative capital ratio and inequality, and varies with initial states. Among economies with the same balanced growth rate but different initial income levels, the ranking of income can switch in favor of those starting from low inequality and a low ratio of physical to human capital, particularly if the growth rate converges slowly.

### SECOND BEST DEBT WITH HUMAN CAPITAL EXTERNALITIES

By Jie Zhang

*Journal of Economic Dynamics and Control (forthcoming)*

This paper studies optimal public debt in a dynastic model with human capital externalities that cause human capital investment (fertility) to be below (above) its socially optimal level. By reducing fertility and raising human capital investment, the optimal debt can exceed 10% of output for plausible parameterizations.

### HEALTH INVESTMENT, SAVING, AND PUBLIC POLICY

By Jie Zhang, Junsen Zhang and Michael Leung

*Canadian Journal of Economics (forthcoming)*

This paper develops an overlapping-generations model in which agents invest in health to prolong life in both working and retirement periods. It explores how unfunded social security with or without health subsidies affects life expectancy, economic growth and welfare. In particular, by extending life at a possible cost of capital accumulation, health subsidies and a pay-as-you-go pension can improve welfare, especially in the short run.

### INTERGENERATIONAL MOBILITY UNDER PRIVATE VS. PUBLIC EDUCATION

By James Davies, Jie Zhang and Jinli Zeng

*Scandinavian Journal of Economics (forthcoming)*

This paper analyzes intergenerational earnings mobility in a model where human capital is produced using schooling and parental time. In steady-states more mobile societies have less inequality, but in the short-run higher mobility may result from an increase in inequality. Starting from the same inequality, mobility is higher under public than under private education. A rise in income shocks, for example due to increased returns to ability, or a switch from public to private schooling both increase inequality. However, increased shocks raise mobility in the short-run and do not affect it in the long-run, whereas an increased role for private schooling reduces mobility in both the short- and long-run. That these differences may help to identify the source of changes in inequality, and other real-world implications, are illustrated in a brief discussion of time trends and cross-country differences.



## STAFF ACTIVITIES

### Assoc Prof Aditya Goenka

Assoc Prof Goenka served as a discussant for the paper 'Consumption Strikes Back' presented by Lars Peter Hansen, John C. Heaton and Nan Li at the 1st Saw Centre for Financial Studies Conference on Quantitative Finance, 19 April 2005, NUS.

### Dr Lee Soo Ann

Dr Lee has been appointed editor of "Church and Society", a thrice a year journal of the Trinity Theological College of which he is a part-time honorary fellow.

### Dr Cheolsung Park

Dr Park presented the paper 'Effects of Ability Mixing in High School on Adulthood Earnings: Quasi-Experimental Evidence from South Korea' at Seoul National University, on 31 March 2005, at the Korea Education Development Institute, on 1 April 2005 and at Yonsei University, in Seoul, South Korea, on 1 April 2005.

### Dr Sougata Poddar

Dr Poddar presented a paper titled 'Some Economics of Movie Piracy' at the University of Birmingham, United Kingdom on 11 June 2005.

### Dr Yohanes Eko Riyanto

Dr Riyanto gave an interview to Radio Singapore International (RSI) on intellectual property rights, China-US relations and the WTO in May 2005.

### Assoc Prof Peter R D Wilson

Assoc Prof Wilson gave an interview for the Korean Broadcasting System for a documentary on Singapore which was broadcast on 9 March 2005. He was also invited to be a judge for the University Category of the fourth Monetary Authority of Singapore Essay Competition which was held in March 2005. Assoc Prof Wilson presented a paper titled 'The Prospects for Real Economic Integration in South-East Asia' at the South-East Asia Regional Conference, which was held at the British High Commission, Singapore, on 5 April 2005.

### Assoc Prof Julian Wright

Assoc Prof Wright and Yuanzhu Lu, a PhD student at the Department, presented a paper titled 'Tacit Collusion with Price Matching Punishments' at a department seminar at the University of Canterbury, United Kingdom on 18 February 2005.

## STUDENTS' ACHIEVEMENTS

### *Lim Tay Boh Memorial Award Winner – Liang Shiqi*



**M**y journey into becoming an Economics major in NUS was a rather interesting one. I started out, 4 years ago, as a Life Sciences major in the Faculty of Science. Prior to coming to NUS, I had to make a choice between Life Sciences and Economics. I chose the former over the latter partly out of curiosity of exploring a new subject, and partly due to all the hype back then about Life Sciences being the new pillar of the Singapore economy. It took me

only one semester to realize that laboratory and research work were not really my cup of tea and not where my true interests lie. I decided to switch over to major in Economics instead.

I think most of us, especially those who studied Economics in the junior college, found Economics in NUS more quantitative and analytical than what we expected. Nonetheless, I felt that the greater emphasis on application made the courses more enjoyable and mind-stimulating, and has also allowed me to gain more than just an academic understanding of how Economics relate to many aspects of our daily lives. This has, in turn, equipped me with the ability to understand and to keep pace with many current issues in the global economy.

Having a major in Economics has also opened many doors for me in the financial industry. Throughout my undergraduate years, I have done internships at the Monetary Authority of Singapore, and at both local and foreign banks. Unlike my co-workers with a background in Finance, I found that having a specialization in Economics allowed me to better understand and appreciate the interconnections between various national economies, between the foreign exchange markets, the interest rate markets and so on. This skill-set has been, and I believe, will be very relevant as I move into the industry of investment banking.

I would like to take this opportunity to express my appreciation to all the professors who have been extremely friendly and helpful. I would especially like to thank Dr Younghwan In, who was my Independent Study Module and Honours Thesis supervisor. I really enjoyed the freedom which he gave me in exploring ideas on my thesis, and am also thankful for the guidance which he readily provided each time I was stumped. He also went beyond being a mentor to being a friend, and I was always spurred by his words of concern and encouragement.

Being an Economics student has been both challenging and rewarding, and I am certainly glad that I made the decision four years ago to switch to specialise in Economics.

## MAS Book Prize and ESS Medal Winner – Yeo Khee Yong



Given that I was in the science stream in junior college, a number of friends from my junior college and secondary school days were somewhat surprised that I decided to read Economics at university level instead of engineering or accountancy. Even though I never did ask them personally, my hunch is that at that time some of them suspected whether I had made a correct choice. But after going through these four years in the Economics programme in NUS, I can say that I have taken the correct path and my choice back then had not been an irrational one.

I must say that I managed to enter NUS at the 'right' time, for if I had been born a few years earlier, I may not have had the chance to read the modules in game theory and competition policy, two modules that I particularly enjoyed. (These courses had only been introduced in the last two to three years.) The concepts taught allowed me to better understand the strategic interactions between economic agents going on in real life, whether it is the price wars going on between the petrol companies in Singapore, the lose-lose situations that may arise when two parties are faced with a situation that mirrors the prisoner's dilemma, or the overuse

of common resources when people only consider their own gains and losses but not the effect on others. It further convinced me that economic models, though elegant and sometimes over-simplified, are not merely white elephants but avenues through which we can better understand the real world.

I would like to take this opportunity to express my gratitude to my thesis supervisor, Dr Lim Boon Tiong, who has been extremely open to my ideas for the thesis and patiently guided me through this demanding academic exercise despite his busy schedule. Many thanks also go to my other lecturers who have made Economics come alive and made the learning process less daunting. They include: Assoc Prof Shandre Thangavelu, Dr Younghwan In, Assoc Prof Xing Xiaolin, Assoc Prof Julian Wright, Assoc Prof Albert Tsui, Dr Ho Kong Weng, Assoc Prof Hui Weng Tat and Dr Gamini Premaratne. I am also grateful to my family and friends, whose support during the sometimes nerve-wrecking moments while I was doing the Honours Thesis helped me overcome the difficulties present at that time.

It has been an intellectually stimulating four years as an Economics student in NUS. While I may not necessarily be able to remember every single detail about the random effects model, the Tobin growth model or Hotelling's lemma, the basic principles and analytical skills learnt would enable me to make more informed and rational decisions in my personal life as well as in my work.

## SINCPEC Prize Winner – Mattheus Wijnand De Vree

I am honoured and proud to be awarded the SINCPEC book prize for being the best student in the coursework programme leading to the degree of Master of Social Sciences in Economics in 2004/2005.

My interest in economics was kindled during the second year of my law studies. I was inspired by my professor Han Donker at the Erasmus University of Rotterdam. Thereafter, in the year 2000, I enrolled for a Bachelors programme in Business and Economics. In the summer of 2004, I graduated from the Erasmus University, with two LL.M. degrees, one in International Tax Law and the other in Financial Law, and a Bachelor of Science degree in Economics and Business.

Having successfully completed my studies in Rotterdam was an important milestone in my life, yet I was at a crossroad with a difficult decision to make - to continue work as a tax lawyer or to enrol at NUS and continue studying. I chose the latter as I wanted to pursue my interest in Economics, and with hindsight, I am very happy with my decision. Although I had some difficulties after some challenging lectures in

Mathematics and Macroeconomics, I now feel well equipped to make sound quantitative analyses. This course has helped me gain a broader intellectual perspective, provided me with the relevant tools to tackle complicated problems and has intensified my interest in Economics, especially in Corporate Finance, Microeconomics and Industrial Organisation.

I would like to thank Dr Yohannes Eko Riyanto, Professor Parkash Chander, Assoc Prof Julian Wright, Dr Lim Boon Tiong, Dr Park Cheolbeom, Dr Chang Wayne and Professor Ngo Van Long for their inspiring lectures, help and dedication. Moreover, the NUS staff and academic facilities are of world class quality.

Apart from academics, my short stint in Singapore has been filled with activities like travel, sports and partying! I feel it is



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important to balance leisure and studies. I have been able to appreciate the diverse Asian cultures and the people, who have helped me to grow as a person. I would like to thank my family and girlfriend for their loving moral support and all my friends for all the good times we've shared.

## Lim Chong Yah Gold Medal Winner – Esther Thng

I did my basic degree about ten years back. Coming back to school again to do my masters was a daunting prospect at first. Daunting because I wasn't sure if I could handle the rigour of the course while holding down a job and looking after two young children. In the end, I managed.

I've learned tremendously during the last two years in the master programme. I have benefited enormously from the diversity of the course offering, from theoretical economic theories to practical aspects such as Economics on Singapore and East Asia. The course is both intellectually stimulating and challenging. What I've learned in the course is also highly applicable to my work.

A bonus that I've gotten out of the course was the lecturers and friends that I've made during the last two years. I gained a lot of knowledge and insight from lecturers who either shared their research or practical experience with the class. Friends were a key source of support especially during the critical preparation phase for the examinations; we shared our study strategies, knowledge of the subject and encouragement.

To be awarded the Lim Chong Yah Gold Medal was absolutely unexpected. I can only say that the award is a reflection of all the support that I've had throughout the last two years. From

So what's next? In the short-term, my girlfriend and I will travel by land from Singapore to London. This prize is a timely support to buy some travel guides! And finally at the end of this year, I look forward to a new challenge - working life in London.

the start, my boss was very supportive of me doing the programme by making it convenient for me to attend classes. My husband and mum were my other pillar of support; looking after the children so that I could attend classes and prepare for assignments and exams. My husband also took leave during the exam period so that I could concentrate on my studies.



If you ask me what advice I would give on how to achieve good grades, I would say it really boils down to consistency and hard work. I try my best to keep up with the required readings and getting assignments done on time. I also try not to miss classes as I've found that I can reduce my study time if I pay attention in class. It also helps to have a group of friends with whom I can discuss difficult or confusing concepts.

Looking back, the past two years have been a most rewarding journey. It's a great privilege to be educated.

### STAY IN TOUCH

We would like to express our sincere appreciation to all those who have contributed to this issue of the Newsletter.

We welcome your contributions on teaching, research and learning topics, as well as feedback on this issue. Please write to: [ecssec@nus.edu.sg](mailto:ecssec@nus.edu.sg).

Do we have your correct name and address? Would you like us to send a copy of the Newsletter to your friends/colleagues? Please fill in the form below and fax (6775 2646) to:

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## ECONOMICS SOCIETY CAMP

‘Infinite Horizon’ may not be your typical theme for an orientation camp, but for the Economics Society’s (ENS) camp this year, it represented the unlimited opportunities university life can offer to broaden our horizons. As a first point of contact with university life for the freshmen, the camp took on the role of presenting the range of opportunities to the first-year participants.

The three-day camp ran from 29<sup>th</sup> June to 1<sup>st</sup> July 2005. Though short, the camp period was enough for all to find new friends and have lots of fun.

The camp started with a series of icebreaking games. A must-have feature in all orientation camps, the icebreakers were essential as they initiated new bonds of friendship among the participants that will prove valuable in their university life.

The first real highlight of the camp came soon after with a race around the school campus. Called *NUS: An Amazin’ Place*, the race was a remake of a wildly popular American race-cum-TV reality show of a similar name, but with the aim of introducing to the various locations and facilities in NUS. Not only did the freshmen get to know NUS better, but they also learnt, from the current students tagging along, a few hidden shortcuts and some of NUS’ best-kept secrets.

The day ended, but not before a round of wacky night activities, in which the guys and gals put on one another’s make-up and the participants were treated to a scary water slide. The additional details shall only be kept in the memory of the participants.

It was then time to get hot, wet and sweaty for the next two days as we headed down to Sentosa’s sunny, sandy beaches. When it came to the sporty beach games, the hunks and babes that we were – and still are – were not afraid of strutting our stuff. At the same time, we showed a fierce but friendly



*The Machos and the Marys*

competitive spirit befitting of a striving NUS student while having loads of fun! Even the weather could not douse our spirit as we continued playing in the mid-afternoon drizzle.

The afternoon gave way to a cool evening and we started with an item that would have been called Fright Night in other camps. But we gave it a better name - Confidence Walk - for it was to be a confidence-building exercise.

The participants were led into a long and unlit bicycle trail in pairs. But that was just the appetizer for them before the main course – a walk through a “haunted house”. The camp organizers dressed up as ghosts and stood ready in the dark house to scare the participants, but they were faced with a happy problem when the participants were apparently not spooked out, for it meant the confidence-building walk had succeeded.

The third and last day began with another series of beach games. This time, the weather was extremely good, and we finally had a chance to get that well-deserved tan. We played several team games such as captain’s ball and handicapped soccer. All these games aimed to promote teamwork and camaraderie among the participants.

As the orange sun set against the horizon between the sky and the sea, the camp was brought to a memorable end with a big thank-you buffet for everyone.



*Race ya’ to the finish line!*

