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Centre for Economic Policy Research

Australian National University

and

Economic Research Centre

University of Western Australia

Report of the 2000
PhD Conference in Economics and Business

15-17 November 2000

ANU Canberra

Centre for Economic Policy Research

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PhD Conference in Economics and Business

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Conference Convenors: Bruce Chapman / Bob Gregory
Conference Coordinator: Rae Carson

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THE REPORT

What follows is a Report of the Conference which, while a serious and generally accurate piece of prose, takes a more light—hearted view of proceedings.

In November 2000 ANU's Centre for Economic Policy Research hosted the l3tI Annual PhD Conference in Economics and Business. The conference has been run jointly by the CEPR and the Economics Department of the University of Western Australia, with the major academic convenors being Professors Ken Clements, Stephen King, Bob Gregory and Adrian Pagan. It involves PhD students presenting their work to be critically discussed by experts in the field.

At the welcome Barbeque for the 2000 Conference Professor Bruce Chapman, Director of the CEPR, sought to relieve the possible stress of the 25 PhD students involved, knowing that their work would be dissected publicly over the next two days. He said that the conference was a co-operative and positive venture and that, while the discussants were all razor-sharp experts, the goal was to assist and not slash away at students' work. It was pointed out that only friendly discussants were welcome.

These comments, and an excellent dinner, promoted productive social interaction between participants, which helped to ensure that the group was relaxed and comfortable before the formal presentation of students' work. This began the next day in the hallowed halls and seminar rooms of University House.

As is always the case a very broad range of areas and topics were covered. These included: regime switching; the role of public employment services; the implications of debt forgiveness; the nature and consequences of foreign exchange intervention; wage setting practices and their effects on unemployment; education, fertility and economic growth and economic policy challenges in a transition economy (with two papers in this area considering Vietnam). It is encouraging that all major areas in economics continue to be of interest to Australian PhD students.

The standard of both the presentations and discussant's comments were extremely high, and so too was the technology employed. Those of us with dim memories of black and white transparencies — or even chalk and blackboards — can only marvel at Powerpoint, used by many at the Conference. And even some of the oldest discussants had progressed comfortably to at least encompass colour overheads.

After a day of stimulating and generally excellent presentations and discussion, Professors Chapman and Steven King (the University of Melbourne), hosted the Conference dinner. This occasion is always a lively opportunity for students to mix informally with their peers and older colleagues, and often leads to the development of long-lasting and significant professional relationships. It is also designed to be fun.

At this particular dinner Chapman and King introduced an innovation, Economics Trivial Pursuit. This was a competition where each of the eight tables (more accurately, those sitting at them) were invited to pose several questions on economics and economists, with the winning team being those at the Table answering correctly the most questions. There were no rules other than that participants needed to have a vague idea as to what the answers to their questions might possibly be.

Some of the questions were: what is the name of a famous economist's dog (nobody knew); which Australian economist would be the first to receive the Noble Prize (nobody knew); and, what is the relevance of academic economics for real world issues (nobody knew). A prize was given for the best question, with the winner to be decided by acclamation. Unfortunately, hosts Chapman and King had not understood that this arrangement would reward the loudest, most raucous and least refined group, which turned out to be a loose amalgam of senior male Professors from the Universities of Melbourne and NSW. While they won easily, it was generally agreed that members of this Table showed little class, and were an accurate and saddening indication of the decline in social sophistication of senior Australian academics. *[It was decided that this is the fault of successive Australian governments' reluctance to adequately reward academics - Ed.]*

The dinner ended for most around 11pm, and students presenting the next morning showed an admirable insecurity by leaving earlier than this to prepare their talks again. However, several Conference participants - students who had already performed, and senior academics unconcerned with their reputations - unselfishly stayed for a time sufficient to ensure that the CEPR did not need to be excessively burdened with the storage of any remaining wine.

Leaders of this enthusiastic group then decided to apply their understanding of probability theory at Casino Canberra. However, after the gambling began there was a fairly rapid diminution of funds for the group, which meant that this particular extension of the Conference dinner ended earlier than expected; probability theory has been blamed. One bright side is that the ACT Rate Payers' Association has expressed gratitude for the PhD's Conference contribution to local gambling tax revenue. *[It would be wise to suggest that this organisation be approached for sponsorship for future conferences held in Canberra - Ed.]* The Conference participants involved appeared tired but happy the next morning after their long and penniless walk back to University House in the early hours.

The second day of proceedings was highlighted by more high standard presentations, in particular with respect to the invited address from Dr Rodney Maddock, Director of Research at the Business Council of Australia. Dr Maddock's career has spanned academia, policy advice at senior levels of the Victorian government, and leadership in the business community.

Dr Maddock has summarised his talk for this Report, saying that its essential messages are as follows: "Economics provides a strong analytical framework for unpacking a wide range of issues. To make the best of this potential, young economists have to work on relevant problems and develop the ability to communicate the results to non-economists.

This means that they need to understand the institutional framework within which policy makers or firms operate. Only on the basis of a sensitivity to the constraints faced by others, can they produce the greatest benefit from their analysis. High quality analytical thinking is in very scare supply. The rewards available for it outside the university sector are very high but an ability to communicate is crucial." *[private communication - Ed.]*

However, the popular interpretation at the Conference of his talk is that it stressed for PhD graduates: the obvious superiority of an economics training above all other disciplines; the need to speak good; and the importance of knowing what one's superiors really want. A major additional point agreed by observers is that Dr Maddock thought that only a clown would be an academic, since the pay was terrible and there wasn't any status in it. *[It was decided that this is the fault of successive Australian governments' reluctance to adequately reward academics - Ed.]*

The student and discussant presentations continued over the final, afternoon, which was followed by the voting for and awarding of prizes for the most valuable contributions. The prize for the best student presentation was awarded to John Romalis, from the Massachusetts Institute of Technology, his topic being *Factor Proportions and Commodity Trade*. The runner-up was Mark Melatos, from the University of Sydney, whose topic was *Modelling a Customs Union's Choice of External Tariff*.

The Best Discussant prize went to Ron Bewley, from the University of NSW, who said later that he didn't vote for himself (he thought Geoff Kingston, also from the University of NSW *[Coincidently? - Ed.]* had done the best job), and that he'd never won anything before in his life *[This last confession might have prompted a recount of the votes - Ed.]*. The runner- up was Bruce Chapman, who said later that he too didn't vote for himself, and nor did he vote for Ron Bewley, because he had heard that Ron was a favourite for the award *[If Chapman had voted for himself independent estimates suggest that his total would have doubled - Ed.]*.

The Conference continues to owe a great deal to the support of our sponsors, and we are very grateful for their involvement. Their financial backing ensures that the significant advantages of close interaction between students and discussants, and between students and students, ensures not only substantial short-term benefits to the economics and business community, but will have long term payoffs through continued professional interaction of those involved.

The sponsors for 2000 were:

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Reserve Bank of Australia
The University of Western Australia

All the hard work for the Conference was done by Rae Carson. She put the papers together in a wonderfully organised folder, juggled a huge number of attempts to change the program, booked all the accommodation, and put up with the usual and difficult demands of academics. The substantial achievements of the Conference can be traced mostly to her consummate efforts, and while this was recognised publicly at the Friday lunch where flowers were offered gratefully for her commitment, we remain very much in her debt. Rae Carson's efforts illustrate that universities often don't pay staff their true social value. *[It was decided that this is the fault of successive Australian governments' reluctance to adequately reward academics - Ed.]*

In short, the Year 2000 PhD Conference of Business and Economics was a terrific success, and there is every good reason for the institution to continue in the same way. The highly positive professional interaction between and among PhD economics students and academics is both extremely valuable and highly valued for and by our community. For this we acknowledge Professor Ken Clements who initiated the Conference in 1987.

Bruce Chapman

THE ABSTRACTS

THE ROLE OF FOREIGN EXCHANGE INTERVENTION IN THE AUSTRALIAN CURRENCY MARKET: A FACTOR MODEL APPROACH

Shakila Arumanayagam

Monash University

Since the deregulation of Australian financial markets in December 1983, the volatility of the Australian dollar exchange rate has been an important issue. In particular, there has been periodic focus on the effectiveness of exchange rate policy adopted by the Reserve Bank of Australia (RBA) in stabilizing the Australian dollar. This paper examines the impact of the foreign exchange intervention in influencing the volatility of the Australian dollar. A latent factor model is used to decompose the volatility of exchange rates into three unobserved l namely world, numeraire and idiosyncratic. The impact of foreign exchange rate intervention is examined by further decomposing the numeraire (Australian) factor into intervention and an unobserved factor. The unobserved nature of the factors provide insufficient information to identify the parameters using simple regression techniques, furthermore, it is widely known that financial time series exhibit conditional heteroscedasticy. Therefore, GARCH specifications are imposed on each of the unobserved factors and the model estimated with efficient method of moments (EMM) techniques. The results suggest that less than three percent of observed the exchange rate volatility is explained by the intervention by the Reserve Bank of Australia.

EDUCATION, FERTILITY, AND GROWTH: DOES INEQUALITY MATTER?

Akihito Asano

Australian National University

This paper explores an endogenous growth model in which individuals make their decision over investment in human capital and fertility jointly. Endogenous growth is driven by the accumulation of human capital. The predictions of the model are consistent with empirical findings: growth is negatively correlated with fertility but is positively

correlated with human capital. Simulations illustrate the non-monotonic nature of the effect of inequality upon growth. For an economy that has already taken off, inequality is likely to impede growth. Otherwise, inequality may not have any significant effect upon growth, and the direction of this effect is ambiguous.

TECHNICAL EFFICIENCY OF SRI LANKA'S MANUFACTURING INDUSTRIES - POST TRADE LIBERALISATION

Yapa Bandara

University of Queensland

This paper applies stochastic production frontier modelling to analyse technical efficiency of manufacturing industries of Sri Lanka during the post-trade liberalisation period (post-1977). Technical efficiency is a critical component of total productivity in manufacturing. The viability of export oriented manufacturing depends crucially depends on sharpening of international competition of manufacturing production. The need to bolster productivity is clear to policymakers. However, policy prescriptions to nurture international competitiveness should not be based on partial productivity measures such as labour productivity alone as it would lead to flawed investment, and resource allocation decisions. The study demonstrates that by using decomposition analysis inter sectoral growth in manufacturing is affected by not only input growth but also by total factor productivity, which encompasses both technical progress and technical efficiency. The need for a comprehensive approach to productivity analysis is underscored so as to forestall policy actions based on partial productivity measures that seriously jeopardise international competitiveness of Sri Lanka's manufacturing industries.

INSIDERS AND OUTSIDERS: WAGE SETTING INSTITUTIONS AND THE PERSISTENCE OF UNEMPLOYMENT IN AUSTRALIA

Michael Dobbie

Macquarie University

This paper has two interconnected objectives. First, we report the results of an empirical investigation into the insider outsider theory that, it has been proposed, can explain

unemployment hysteresis/persistence. Second, we investigate whether the changing institutional arrangements governing wage setting in Australia over recent years have had any systematic influence on the relative power of insiders and outsiders in the labour market. We find that insiders are stronger, and outsiders weaker, in the emerging enterprise bargaining sector of the economy. The converse of this is that the award system appears to act as a brake on the exercise of insider power, and acts as a mechanism to enfranchise outsiders in wage setting. If correct, and given the current policy commitment to the continued spread of enterprise bargaining, these findings imply that enterprise bargaining may increasingly compromise the ability of the economy to generate reductions in unemployment.

DEVOLVING PUBLIC EMPLOYMENT SERVICES: THE AUSTRALIAN EXPERIMENT

Michael Dockery

Curtin University of Technology

Throughout much of the OECD there has been a trend toward devolution in the delivery of active assistance programs for the unemployed. Australia has perhaps gone further than any other by tendering out almost all public employment services under the "Job Network". This paper seeks to contribute to the international evidence on the effectiveness of different models of delivery of public employment services through a review of the Job Network model. There are some salient lessons to be drawn from the Australian experience, particularly with respect to evaluation issues and the incentive effects associated with a competitive employment services market.

A FRAMEWORK TO EVALUATE THE ECONOMIC IMPACT OF THE SPONSORSHIP PROGRAM OF THE WESTERN AUSTRALIAN HEALTH PROMOTION FOUNDATION

Delia Hendrie

University of Western Australia

This paper examines theoretical frameworks and methodological approaches to evaluate the Sponsorship Program of the Western Australian Health Promotion Foundation. This program allocates funding of approximately $10 million annually to sport, arts and racing organisations for activities that provide opportunities to promote health messages to groups which are often difficult to reach through more traditional health promotional strategies. Current evaluation of the program is primarily in terms of its impact on health literacy and promoting health lifestyles and environments. However the results of qualitative research and a review of the literature suggest that the Sponsorship Program has multidimensional outcomes that extend beyond the intended impacts that are currently evaluated. Broadly defined, these additional outcomes include a reduction in disease in the longer term from the decrease in health risk behaviours, the promotion of individual well-being beyond the decrease in health risk behaviours, the promotion of individual well-being beyond the reduction in disease, the promotion of community well being through such factors as fostering participation and advancing equity and social justice considerations, and an economic impact from the effect on organisations and local communities. The alternative theoretical frameworks that can be used to evaluate the multidimensional nature of the benefits of the Sponsorship Program include the traditional economic welfare framework, the extra-welfarist framework that does not require all the values to be translated into utilities, and a more pragmatic multi-objective optimisation framework originally derived from mathematics.

The paper explores methodological approaches and quantitative methods that are consistent with these different theoretical frameworks, and suggests an evaluation plan and procedures - incorporating the wider range of outcomes - to use in evaluating the economic impact of the Sponsorship Program.

STOCHASTIC GENERAL EQUILIBRIUM AND POLICY CHOICE

Tingsong Jiang

Australian National University

Weitzman (1974) presents a simple rule of choosing the policy options under uncertainty in a partial equilibrium model. The selection of policies is determined by the relative slopes of marginal benefit (demand) and cost (supply) functions. However, we find that the selection of policy options. is very complicated in a general equilibrium setting, therefore the Weitzman's rule can not be directly applied. The complicity arises from the interaction between production side and consumption side, and from the confusion of benefits and costs of the use of environmental factor. We find a revised rule similar to Weitzman's under restrictive assumptions, namely, risk neutral and separable utility. Introducing risk aversion and environmental spending in the model changes the comparative advantages of one policy over the other. A quantity control policy is more likely favorable in these two situations.

THE ROLE OF MICRO-FINANCE IN POVERTY ALLEVIATION IN INDONESIA

David Kaluge

University of Canberra

This paper tries to discuss to what extent microfinance institution (MFI) has reached the poor and affected the condition of their economic life. Kukesra and Mitra Karya East Java (MKEJ) are governmental and non-governmental institutions respectively understudy. Based on regression analysis with correction for sample-selection bias, it was found that credit still plays a relatively limited role in poverty alleviation. There were two sets of analysis done using different sample sets. The first set of analysis using whole sample resulted that credit has no effect on the change in working hours. In addition the result from this sample set showed that the length of involvement in the credit program has positive contribution to recipients' incomes. However the size of loan received does not have a significant effect. By excluding the ineligible recipients, non-poor recipients, from the same sample set the results were not much different. It showed that the length of

involvement resulted in higher income but the size of loan has no effect on the change in income.

The second set of analysis used program sub-samples. The analysis resulted that the length of involvement has positive effect on income for, Kukesra and MKEJ, programs. However in the case of Kukesra, the effect of the credit stage is higher for non-poor than for poor members while in MKEJ case, the effect for the poor is higher than for non-poor recipients. The size of loan received does not have significant contribution on income in all program sub-samples. By excluding the ineligible recipients from the analysis, it resulted that the effect of the length of involvement turned to be insignificant for Kukesra poor recipients but still significant for MKEJ poor recipients. The effect of the size of loan has no effect either in whole sample of Kukesra or sub-sample of the target group of Kukesra. In MKEJ poor recipient sub-sample, this variable does not have a significant effect on income but has a positive effect on income for whole sample of MKEJ program.

The conclusion from this study is that the role of small-size credit on poverty alleviation is still limited. Loan services benefited non-poor recipients more than poor recipients while non financial services have a various impact. In Kukesra it benefited more less-poor recipients while in MKEJ the benefit is received more by poor recipients.

STATE VARIABLES IN THE MARKOV HJM TERM STRUCTURE MODELS

Oh Kang Kwon

University of Technology Sydney

Finite dimensional Markov HJM term structure models provide an important link between the traditional spot rate models and the general HJM models, enjoying the benefits offered by both approaches. Consequently, these models became the focus of a series of papers including Caverhill (1994), Ritchken and Sankarasubramanian (1995), Bhar and Chiarella (1997), and Inui and Kijima (1998). In Chiarella and Kwon (1998), a common generalisation of these models were obtained in which the forward rate volatility processes satisfied ordinary differential equations in the maturity variable. Unfortunately,

transformation to Markov systems involve the introduction of additional state variables, which, at first sight, do not reveal any relationship to the variables observed in the market. In this paper, it is shown that these state variables are in fact affine functions of the value, slope, curvature, and higher derivatives at a finite number of points along the forward rate curve. Consequently, for the models presented in this paper, the entire forward rate curve is Markov with respect to a finite number of fixed tenor forward rates and their derivatives. It is further shown that the state variables can also be expressed as the affine functions of a finite number of yields, which are directly observed in the market. The latter observation plays a useful role in the estimation of model parameters.

CONCENTRATION AND SIZE DISTRIBUTION IN THE AUSTRALIAN COAL INDUSTRY

Tony Lawrance

University of New South Wales

We construct a data base of the Australian export coal industry for 1960 to 1996 and use the universal index of Hanna and Kay (1977) as for concentration analysis. We find the concentrations are declining and we compare our results with those of the ABS. We find the size distributions of are firms highly skewed, and fit a Weibull distribution. We prefer a model from a division of parts (Whitworth, 1961), which results from exogenous restrictions on the size of the industry and conservation of the mining tenements. Using a simulation program, we find the fits are higher than expected. We conclude that the most relevant parameter for concentration in this industry (and for industries exhibiting similar characteristics) is the number of firms.

ENERGY-USING CONSUMER DURABLES IN A CGE MODEL OF TAIWAN: THE CASE OF MOTOR VEHICLES

Huey-Lin Lee

Monash University

Most CGE models recognise no special complementarity between household demands for vehicles and their fuel. In such models, higher gasoline prices might increase demand for vehicles! Again, conventional CUE models do not treat vehicles as durables.

To address these problems we create a dummy industry, like that employed by many CGE models to treat household dwelling use. Car purchases are treated as additions to the capital stock of the new industry, which combines the services of car capital with gasoline to produce transport services purchased by households. A petroleum tax simulation illustrates the effect of our innovations.

MODELLING A CUSTOMS UNION'S CHOICE OF EXTERNAL TARIFF

Mark Melatos

University of Sydney

Customs union members must levy a common external tariff (CET). The mechanics of CET choice, however, have yet to be adequately explained. Notable exceptions are Gatsios and Karp (1991, 1995) who demonstrate that it may be in one member's interest to delegate authority over the choice of CET entirely to its partner. In this paper, a 3-good, general equilibrium trading world is simulated to investigate the role of delegation in CET choice. In contrast to previous work, this approach can explain partial delegation (CU members agree to share authority). Furthermore, relationships are obtained between the model parameters and the direction and degree of delegation.

DEBT FORGIVENESS; THE CASE FOR HYPER-INCENTIVE CONTRACTS

Gordon Menzies

Oxford University

We review two proposals for debt forgiveness; the Highly Indebted Poor Country Initiative (HIPC) and the Jubilee 2000 Coalition Initiative (J2K). We then consider the workhorse model of debt forgiveness (Krugman 1988). We show that the workhorse model solution is a sub- optimal contract, where the incentive parameter is set without regard to the cost of effort. A fully-optimal debt-overhang contract is derived, with an incentive parameter greater than the marginal social benefit of extra effort. The so-named Hyper-Incentive Contract eliminates the effects of moral hazard arising from hidden effort, and provides a fuller rationale for case-by-case debt-overhang contracts.

SOCIAL WELFARE IN A TRANSITION ECONOMY: THE CASE OF VIETNAM

Nguyen Thé Dzung

University of Wollongong

The paper provides an empirical case to debates on development alternatives and the relationship between economic transformation and economic and social development. It examines changes in social welfare in Vietnam under the transition from the centrally planned system into a market- oriented economy. Further, the paper presents an econometric model for a quantitative analysis of the changes and discusses policy options of future reforms. It concludes that the on-going transition has been accompanied with the country's shift from the 'support-led' pattern of welfare improvement to the 'growth-mediated' pattern. The shift has certain advantages but there also exist a number of challenges. So, in order to achieve a sustainable development and poverty reduction, the country should deepen the economic reform process and strengthen its social protection services.

OLDER WORKERS AND GOVERNMENT POLICY IN AUSTRALIA

Martin O'Brien
University of Newcastle

Explanations behind the decline in older male labour force participation rates in Australia over recent decades are divided between those that focus on the individual and the accumulation of wealth, versus those that emphasis external influences such as the deterioration of the labour market for older workers and the dearth of available employment. Common to both theories is a need for a non-employment source of income. This paper explores the role of government policy in the areas of social security and superannuation, as well as employment policy, as an influence on older male workers decision to remain in or leave the labour force. In particular, the paper addresses the reliance of older males on various pensions, as well as the effect of policy changes within these programs on pension takeup or labour force participation. Econometric modelling is used to explain past movements in older male labour force participation and pension takeup. The findings are of particular policy relevance in the light of recent welfare reform and efforts to encourage older worker participation in an ageing Australia.

FUNCTIONAL DIVERSITY AND THE NOAH'S ARK PROBLEM

Neil Perry
LaTrobe University

The Noah's Ark problem, addressed in economics and biology, is concerned with the allocation of limited conservation funds to conserve biodiversity and the development of a measure of biodiversity conservation. The problem for Noah is to choose which species come on board the Ark and which must be left behind with a view to maximising the diversity measure. In this paper I develop a diversity measure for Noah based on functional diversity, a component of biodiversity definitions neglected in the economics literature. Functional diversity is the number and types of interactions between organisms and the processes underlying ecosystems. Maximising this diversity measure leads to a species-ranking system based on functional similarity with different outcomes to one based on genetic difference.

STATE OWNED ENTERPRISE REFORM IN VIETNAM

Quoc Ngu Vu

Australian National University

Applying the Solow-type growth accounting technique, this paper reports the construction of an econometric model designed to analyse the effect of economic policies on the productivity of industrial SOEs in Vietnam for the 1976-98 period. The empirical work shows that the annual average TFP growth rate was 3 percent for the whole study period and 5 and 6 percent for the reform periods. This was seen as the result of different reform measures applied to industrial SOEs from the early 1980s and to a large extent, thanks to incentives and the greater autonomy given to managers and workers of SOEs.

FACTOR PROPORTIONS AND COMMODITY TRADE

John Romalis

Massachusetts Institute of Technology

This paper derives and empirically examines explicit predictions of the factor proportions model for commodity trade. It combines a many-country version of the Heckscher-Ohlin model with a continuum of goods developed by Dornbusch-Fischer-Samuelson (1980) with the Krugman (1980) model of monopolistic competition and transport costs. The commodity structure of production and bilateral trade is fully determined. Two key predictions emerge. There is a quasi Heckscher-Ohlin prediction. Countries capture larger shares of industries that more intensively use their abundant factor. There is a quasi-Rybcyzinski effect. Countries that accumulate a factor see their production and export structures systematically move towards industries that intensively use that factor. Both predictions receive support from the data. Factor proportions appear to be an important determinant of the structure of international trade.

A STRUCTURAL MODEL WITH REGIME SWITCHING: AN APPLICATION TO THE US GNP

Roland Shami

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The nature of business cycles suggests that activities during the expansionary phase are different from those during the recessioary phase. As linear models cannot capture this asymmetric behaviour, nonlinear models are frequently used to analyse the business cycle. One such model was proposed by Hamilton (1989, *Econometrica*). His main idea is to model a series using two unobserved components: the first being an autoregressive component and the second a two-state Markov process. These two states correspond to the expansionary and recessionary phases of the business cycle. In this paper, an alternative nonlinear model is developed using this two state Markov process along with a structural model that is related to simple exponential smoothing. The new model is used to analyse the U.S. business cycle using U.S. quarterly real GNP data. Model parameters are estimated using a Gibbs sampling method and forecasting distributions are produced. In addition, the stability of the new model is investigated against Hamilton's model on various other data series.

STOCHASTIC MODEL OF DEMAND FOR MEDICAL CARE WITH HEALTH INSURANCE

Alexandra Sidorenko

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The paper proposes a model of demand for medical care under uncertainty. Both health capital and wealth are modelled as Wiener processes. The model uses a continuous time stochastic optimisation technique to derive optimal solutions for consumption, leisure and medical care. Insurance against uncertain medical expenditure is then incorporated into the optimisation problem under the assumption of constant relative risk aversion of the value function, and constant elasticity, relative risk aversion and relative prudence of the health investment function. The optimal solution is shown to depend on the curvature of the value function, the curvature of the health investment technology, and variances of the stochastic shocks. Dynamic simulations of the model are carried out.

IN SEARCH OF TRUE PERFORMANCE: TESTING BENCHMARK-MODEL VALIDITY IN MANAGED FUNDS CONTEXT

Victor Soucik

Edith Cowan University

With the recent surge in the prominence of Managed Funds sector in financial markets, the ability to accurately measure the risk-adjusted performance of these funds has become vital. To this end we have set out to analyse a set of benchmarks with a view to assessing their comparative results as well as their individual efficiencies. Using an ASSIRT database on Australian managed funds we mitigate any data mining bias affecting US studies, as well as provide an international perspective on the managed fund performances. The examined benchmarks — which included 1) All Ordinaries Index, 2) Equally-Weighted 3) Value-Weighted and 4) Price-Weighted Index, 5) Fama and French's 3-Factor Portfolio, 6) Carhart's 4-Factor Portfolio, 7) Grinblatt & Titman's 8-Portfolio Benchmark, 8) Ferson and Schadt' Conditional Expectations Model and its modified version used by 9) Sawicki and Ong - were tested using the Jensen's alpha model, as well as the selectivity-timing decomposition models proposed by Treynor & Mazuy and Henriksson & Merton. We have also tested for the relative importance of three risk-free return proxies that coincide with 1) proxy used in general literature, 2) maturity of assets held by managed funds and 3) average life-span of managed funds. To control for several unique characteristics associated with new funds and funds nearing their demise, we have subdivided our sample period into three five-year time frames between 1985 and 1999. Finding that the choice of benchmark has a significant impact on the measured excess returns both with and without market-timing adjustment, we have next analysed the individual efficiency of each benchmark and each measurement model. To this end we have conducted tests against a set of passive portfolios that were controlled for known market biases, on the presumption that a lack of private information in the construction of such portfolios should produce zero abnormal return (as per Grinblatt and Titman, 1989). In the next stage we have examined the persistence in performance of managed funds by looking at relative changes in the above results across three sub-periods. Finally we have recognised that 1) the above benchmarking methods are heavily (if not exclusively) biased towards testing of equity funds and 2) apart from

selectivity and market timing, managed fund managers can also improve their returns through prudent asset allocation. We have therefore proposed and tested an innovative measure based on asset allocations, thus producing a benchmark that can be used independently of the fund's asset structure.

ASYMPTOTIC STABILITY OF STOCHASTIC GROWTH MODELS
WITH UNBOUNDED SHOCK

John Stachurski
University of Melbourne

Recent results concerning the stability of Markov models are applied to stochastically perturbed economic systems with unbounded noise. The techniques provide sufficient conditions for identifying systems that exhibit global asymptotic stability. The paper includes a new proof for a result pertaining to the stability of contractive dynamical systems on metric space.

ASPECTS OF MANAGEMENT STRUCTURES: AN INDIVIDUAL CHARACTERISTICS APPROACH

Mahmut Temur
University of New South Wales

We undertake a unique economy wide study of the empirical relationship between the characteristics of management structures at the job level, the individuals who fill the jobs and the industries in which the firms operate. For the first time we are able to deal with three key management issue concurrently: (i) level or position in the hierarchy, (ii) involvement in decision making, and (iii) span of control. We are also able to control for human capital, autonomy, some industry level characteristics and occupation. Our results support some recent theories, contradict a number of others and offer a range of new facts to guide future research.

UNDERSTANDING AND VALUING RISK IN HEALTH CARE DECISION MAKING: ISSUES FOR ECONOMIC EVALUATION

Rosalie Viney

University of Sydney

The outcomes of health care interventions are risky. If individuals value risk, this is relevant to the value that society places on health care and on different health care interventions. Conventional methods of economic evaluation have not adequately considered the impact of the value of risk associated with health care. These approaches do not distinguish between aggregating the value of the expected outcomes of the intervention to the individual and valuing the aggregated outcomes of the intervention for the population. In particular, the QALY (quality adjusted lifeyear) model which dominates economic evaluation imposes a number of restrictions on the individual's utility function. This paper proposes the use of stated preference discrete choice modelling to test the assumptions underlying the QALY and HYE (healthy year equivalents) approaches to valuing health states. A choice experiment is described and preliminary analysis and results from a pilot study are discussed.

DELAYS IN BARGAINING WITH INCOMPLETE CONTRACTS

Andrew Wait

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This paper examines the incentive to delay reaching a bargaining agreement (or innovation) when: there are multiple bargaining periods; the outcome of previous bargaining rounds affects the subsequent distribution of surplus; contracts are incomplete; and the parties are wealth constrained. Unlike in much of the literature a party may wish to delay reaching a surplus enhancing agreement despite both parties having symmetric information. In the model reaching agreement (innovation) affects parties' claim on future surplus either by altering their default payoffs (historical bargaining positions) or by changing their relative contemporaneous bargaining strengths. Delay will occur at different times depending on which of these assumptions applies, If agreement reduces the future default payoffs of a party, delay is more likely when expected future surplus is

lower. If innovation reduces current bargaining power, however, a party is more likely to delay agreement when expected future surplus is larger.

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