

Asymmetric information

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A newsletter to promote the exchange of information, news and ideas among members of the New Zealand Association of Economists (Inc).

PAST ISSUES

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New Zealand Association of Economists Inc.

JOHN CREEDY Editor *email*: john.creedy@vuw.ac.nz or

John.creedy@treasury.govt.nz. http://www.nzae.org.nz

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EDITORIAL

John Creedy (john.creedy@vuw.ac.nz; John.creedy@treasury.govt.nz)

The last issue of Asymmetric Information contained an obituary of Sir Frank Holmes, written by Gary Hawke. The present issue contains an obituary of Roger Kerr, contributed by Bryce Wilkinson. These articles clearly demonstrate how much we owe to these two outstanding individuals. Inspired by the idea that it would be interesting to read the reflections of a number of eminent New Zealand economists while we can still ask them questions, future issues of Al will contain a series of lengthy interviews. In addition, I have started a regular and lighter 'five minute interview' with well-known economists working in New Zealand, where each person is asked to respond to a common set of questions. The first 'subject' is Arthur Grimes. Another new series, introduced in the present issue, is called 'fine lines'. In each issue I will invite someone to write about one of their favourite diagrams. It does

not have to be well known: it might well be one they have devised themselves, and could be analytical or represent an important empirical phenomenon.

I'm pleased to report that Grant Scobie continues to entertain and educate us with his views on a selection of books. Stuart Birks explains why he has called his regular opinion piece 'Frames'. We also have a piece, in our regular series from Motu, on the role of book translations. Paul Walker continues to report on interesting Blogs. The present issue also contains a report of the first annual conference of the Government Economic Network (GEN).

If any readers would like to contribute occasional or regular pieces to *Asymmetric Information*, I'd be very pleased to hear from them.

OBITUARY

Roger Lawrence Kerr, CNZM, 1945-2011



Roger Kerr led public policy debates in New Zealand for 25 years as the founding executive director of the New Zealand Business Roundtable.

He also had a major influence on public policy through the assistance he gave policy makers and advisers both through submissions to select committees and government agencies and the generous provision of 'one-on-one' advice and material to those policy makers and journalists who had the wit to seek it, regardless of which party they represented. Many MPs and government ministers had the wit. For 15 years Roger established and implemented an annual Sir Ronald Trotter Lecture series that sought to give New Zealanders access to some of the world's leading thinkers on policy topics. Speakers have included Richard Epstein, Thomas Sowell, Antonio Martino (former Italian government minister), Yegor Gaidar (first

Russian Prime Minister), Francis Fukuyama, Martin Wolf (Financial

Times), Nigel Lawson (former British Chancellor of the Exchequer),

Bjorn Lomborg and Noel Pearson (Australian Aboriginal leader).

During these 25 years he made outstanding contributions to public policy development work and to public policy debate. Fundamental changes that the Roundtable advocated, often in the face of fierce criticism, and which have endured to an overwhelming degree overall include the goods and services tax, the State Sector Act 1988, the Reserve Bank Act 1989, the open economy, much deregulation and most privatisations. He also led, as research director, the foundational policy development work behind the current spending cap bill and regulatory reform proposals. He also put a sustained effort into opposing the ACC's statutory monopoly and into advocating options for improving outcomes in education, health and welfare. Under his leadership, the Roundtable has also been a leading contributor to public debate on constitutional issues, including MMP, Treaty of Waitangi issues and the seabed and foreshore debate.

The nominating and supporting letters for Roger's many awards by leading members of the community, including three former ministers of finance, put beyond any doubt the magnitude and extent of his contribution to economic policy making in New Zealand over several decades.

Roger was a staunch supporter of those who showed courage and political leadership in implementing well-conceived but unpopular reforms. He wrote a generous tribute to David Lange, no great admirer of the Roundtable, on his retirement from politics for his courage in leading the government that extricated New Zealand from the public debt and deficit spiral of the 1982-1984 period. He supported Ruth Richardson's June 1991 Budget at the time when a large group of Keynesian economists from the University of Auckland publicly declared unequivocally that the budget cuts "can only depress the economy further". (Victoria University of Wellington economists subsequently dated the June quarter 1991 as the trough of the recession and New Zealand shortly commenced one of the strongest and most sustained periods of growth in output and employment in decades. According to OECD statistics New Zealand recorded the highest employment growth in the OECD in the five years to 1996 and the 6th largest increase in real GDP.)

Roger was appointed to the position of executive director of the Roundtable in 1986 by the chief executives of some of New Zealand's most capable and far-sighted business leaders. These leaders were

Members are invited to submit brief articles on any issue of interest to NZAE members, and/or comments and suggestions. Enquiries and contributed articles should be sent to John Creedy (john.creedy@vuw.ac.nz; John.creedy@treasury.govt.nz).

Views and opinions expressed in these articles are those of the authors, and do not represent the views of the New Zealand Association of Economists

determined to create a business organisation that would lobby for policies for the benefit of the public at large and eschew any self-interested lobbying for business privileges.

Roger took them at their word and delivered on the objective, consistently advocating policies – ¬¬centred on open competitive markets, light-handed regulation where appropriate, public spending focused on public goods and a modest welfare safety net funded by broad-based taxes at a uniform (non-discriminatory) rate – whose pursuit saw many of the same chief executive's businesses put to the sword

Contrary to the representations of some critics, the Roundtable saw governments as having a central role to play as rule makers and umpires to protect individual and commercial freedoms. Amongst other things, they were needed to "protect property rights, promote competition, provide a monetary framework, step in to fill gaps where the market can't work or fails, look after the interests of people unable to make decisions for themselves and provide a social safety net, including underwriting access to services such as health and education".

He took up the Roundtable position after 20 years of being a public servant. In a 1997 speech he explained that:

Two things made me decide to give it a go in early 1986. First, it seemed to me that if New Zealand was going to make a lasting change in direction, it was essential that enough people in business understood why it had to do so and were prepared to stand by that view during painful years of restructuring. If the business sector uniformly opposed the changes, sooner or later governments would throw in the towel.

Second, I was persuaded that Sir Ron Trotter and Douglas Myers, who were by then chairman and vice-chairman of the Roundtable, had a vision for the organisation and the country, were not the sort to wilt in the face of inevitable controversy, and had economic instincts that I shared.

Roger brought outstanding personal qualities to the job: he was one of the nation's top scholars in terms of exam results across a full range of subjects, he had a prodigious capacity for work, exceptional self-discipline and intellectual rigour, courage, tough-mindedness, an unfailing optimism that over time sound arguments informed by experience would eventually be heeded, inexhaustible patience and persistence in this cause, and an innate modesty, that was reflected in his customary generosity and courtesy towards others, superb networking skills in searching for, encouraging and harnessing the talents of others.

Roger also had a deep-seated respect for democracy, when informed by reasoned debate, individual dignity, and the wisdom of crowds. He did not disparage the wisdom of 'experts' but believed that "whatever its benefits, expertise needs to be accountable". (In a 1994 article Roger held the above University of Auckland academics to account, publicly analysing the flaws in naïve Keynesian reasoning and awarding them a D-minus grade for their dire predictions.)

In general, Roger considered that the best mechanisms for making experts accountable and recognising and rewarding them appropriately are market mechanisms where the consumer is sovereign. He wrote that "[w]here markets are not workable, as with pure public goods, the elitism of ordinary politics could benefit from the additional accountability provided by the referendum". He suggested that betting markets, such as ipredict, could be seen as a sort of continuous popular referendum.

Prior to working for the Business Roundtable, Roger worked for 10 years (1967-1976) as a diplomat in the Ministry of Foreign Affairs followed by 10 years at the Treasury where he reached the position of Assistant Secretary.

As a diplomat (first secretary) in Brussels from 1970-1974 he was part of New Zealand's successful negotiating team at the time of Britain's application to join the European Economic Community. New Zealand was a supplicant trying to hold on to the diminishing

prosperity it drew from a shrinking British market while defending a 'fortress New Zealand' policy at home. In 1997 he ruefully wrote that *The Economist* magazine at the time, summed up what New Zealand had come to when it referred to two of those supplicants, Federated Farmers president Alec Begg and general secretary John Pryde as "those emblematic names, Begg and Pryde".

In Brussels he observed that imports could be ordered without a licence and currency exchanged without central bank approval. He started wondering if New Zealanders could ever look forward to such freedoms and considering to what degree New Zealand's deepest economic challenges were self-inflicted.

He did an economics degree part time at Victoria University and moved to the Treasury in 1976. One of his economic tutors, Roderick Deane, has described Roger as the best student he ever had.

Never one to talk about his own motivations, many years later he unobtrusively commented in an article that he considered that economics was "about making the best use of scarce resources so as to raise people out of poverty" (emphasis added). On another rare occasion he quietly commented that he thought that one measure of the quality of a society was how well its people cared for those who were genuinely incapable of fending for themselves. How this support was best provided as between family, friends, voluntary organisations, private charitable and philanthropic initiatives and a limited state safety net was a more complex matter, but he consistently saw a limited role for a state safety net.

His early Treasury career saw him involved with a range of industries. He found that:

All wanted to defend their protected patch, or extend it. Railways couldn't contemplate competition beyond the 40-mile limit, road transport firms needed licensing protection against new entrants, and the idea of free trade with Australia was anathema to most manufacturers. With the economy becoming increasingly stagnant, debt-ridden and inflation-prone, I came to realise that business lobbies in New Zealand had a lot to answer for.

The scope of his involvement in economic policy formation widened enormously when he moved into Treasury's 'medium-term think tank' Economics II division. First as section head and then as director, he threw himself with unmatchable energy and drive into all major aspects of Treasury's economic policy development work.

Issues that he contributed to materially under the Muldoon administration included transport deregulation, road user charges the first auctioning of import licenses, tariff reductions, closer economic relations with Australia, the production in 1984 of Treasury's blueprint for economic reform, *Economic Management*, the formation of state-owned trading enterprises, the subsequent removal of foreign exchange controls and floating of the exchange rate, financial sector liberalisation, privatisation, more decentralised public sector management (emasculating the heavily prescriptive Treasury regulations), and tax reform.

He set out to sharply raise the quality and intensity of internal debate and Treasury's policy advice. He did this by taking an active role in recruiting new graduates as well as by single-handedly creating a culture of peer review. One aspect was sometimes acerbic annotations of circulating Treasury reports. Others included searching ginger group discussions, brainstorming sessions on underdeveloped policy issues and the extensive circulation of the best and most insightful leading articles he had come across on relevant topics.

The intensive reading of relevant research that his leadership inspired led the economic divisions to quickly absorb new insights from institutional economics, transaction cost economics, public choice theory, auction theory and to a lesser degree game theory. One development was recognition of the fundamental importance of a comparative institutional approach to policy analysis, the centrepiece of which is using the opportunity cost of an achievable real world alternative to evaluate policy options, rather than the nirvana of the frictionless world of perfect competition.

In negotiating for the Roundtable position, one of Roger's conditions was an assurance that the organisation would not lobby to protect the chief executives' own positions by supporting anti-takeover legislation. That assurance was freely given and duly honoured.

Under Roger's leadership, the Business Roundtable staunchly opposed all forms of corporate privilege, including protectionism, anti-takeover laws, business subsidies, and tax privileges – a stance that came to be largely supported, through his leadership, by other major business organisations.

Remarkably, the business community rejected a proposal by Winston Peters in 1997 to spend \$100 million of taxpayers' money 'assisting' business and Roger took up the cudgel again in a speech in 2000 that opposed the new government's proposal to spend around \$100 million a year 'supporting' new and expanding firms. Its concluding paragraphs enduringly demonstrate his credo, vigour and clarity on this fundamental and timeless debate about 'laissez faire' capitalism vs corporate privilege:

The business community must keep explaining the facts of economic life to the public, and keep pressing for the fundamental policy changes that will lift economic performance. Last year the Manufacturers Federation stated that "it considers a significant cut in business tax would be more effective and cause less distortions than tax measures targeted at specific areas such as R &D which could influence business choices for tax rather than value-adding reasons". This year some in business have forgotten that message and are heading back down the corporate welfare path, including arguing for R & D tax concessions.

They should stop and turn around. Business organisations said 'thanks, but no thanks' to Winston Peters' \$100 million package of business assistance and they should respond the same way to the \$100 million that the coalition government is offering. After all, Mr Anderton has said "if it doesn't work, we'll stop doing it"; business can tell him why it doesn't work before he starts, and why thinking bigger would be even worse. 'Think Small' may do less economic damage than 'Think Big', but it is equally ill-conceived, is no answer to New Zealand's problems, and is a distraction from the task of putting together the strategy for economic growth that New Zealand desperately needs.

In time, the Roundtable achieved an enviable international reputation for the integrity, professionalism, scope, quality and quantity of its research and arguments in the pursuit of its principles. This achievement was almost entirely the product of the breadth of Roger's extraordinary intellect, his ability to engage the interest and respect of top international thinkers and experts, and a prodigious capacity for work.

One reason for his ability to network so successfully was that he was always focused on the achievement of a high quality policy outcome, rather than on his own contribution. He took pleasure in discovering talent in others and was always on the lookout for it, seeing it as something to tap into. He saw it as an opportunity to make more progress on at least one of a dozen or more policy fronts that his goal-orientated mind always had on its radar screen day and night.

Perhaps the most outstanding example of his ability to identify talent and see it applied to New Zealand problems is the relationship he developed with University of Chicago's Professor Richard Epstein. A citation for a prestigious US award for Richard in 2011 described him as "one of the most extraordinary legal scholars of this generation — or any other".

Roger first brought Richard to New Zealand in 1990 for a whirlwind speaking tour on a wide range of topics related to law and economics. A central aspect was the regulation of interactions between private citizens on the one hand and between citizens and the state on the other. Richard brought a positive analytical framework to the task of debating the most efficient interface between regulation through private law and competition and government regulation.

One result of that visit was a major book Simple Rules for a Complex

World, (1995) that provided a holistic framework for assessing all such questions. Three subsequent visits involved insightful addresses on a wide range of topics of special application which Roger's editorial pen helped Richard turn into 32 monographs. This collection of publications is a major contribution to public policy formulation in New Zealand.

Another very important and productive relationship was with George Mason University's Professor Tyler Cowan. Tyler's many contributions to Roundtable publications included a seminal analysis of the Reserve Bank based on an institutional economics framework, the analysis of constitutional changes already mentioned, and assessments of international experience with regulatory reform. An enduring insight was that cost-benefit analysis is not robust enough to be the centrepiece of attempts to bring greater discipline to regulatory assessment processes.

As part of his continuous networking activities, Roger would unstintingly give support, advice and resource material to officials and others, young and old, where he thought it could be useful, with no thought of receiving any recognition or acknowledgement of his assistance in the final report. Indeed, frequently no acknowledgement was made, given the polarising effect of the opposition to the Roundtable for many years.

He personally commissioned, oversaw and made extensive editorial contributions to all of the work produced by the Roundtable, totalling more than 200 books and reports and well over a thousand articles, op-eds, submissions, media releases, speeches and policy backgrounders.

The list of visiting scholars and authors who contributed to these publications and delivered its flagship annual lecture dedicated to Sir Ronald Trotter over 15 years reads like a scroll of the world's best and brightest.

The scope of this legacy is enormous, ranging far beyond a conventional focus on macroeconomics and microeconomics or industrial organisations. Major publications by top international experts included a pathbreaking analysis of constitutional arrangements, including MMP, books on many aspects of education, a sociological treatise on the family, contributions of a philosophical nature on the Treaty of Waitangi and education, an outstanding book on conservation strategies and books on civil society, poverty, dependency, middle class welfare and equity as a social goal.

Roger put an enormous effort during those 25 years into proposals for improving educational outcomes, at both school and tertiary levels. The proposals were centred on increasing competition and choice, empowering the customer and reducing provider capture. He was a driving force behind the Education Forum. He even served on the council of Victoria University of Wellington for five years, but decided that its poor governance arrangements were externally imposed to such an extent, that performance could only be improved satisfactorily if government were to step in.

Of course, there were plenty of chief executives who were not members of the Business Roundtable who did not agree that their privileges should be removed. For the entire 25 year period, Roger led the charge against the protected statutory monopoly positions enjoyed by some of the country's producer boards, particularly the Dairy Board.

For some years the Dairy Board staunchly defended its statutory privileges on 'weak seller' grounds. The argument asserted that the price overseas buyers would pay for 'X' units of New Zealand milk products would depend on the number of sellers rather than on what consumers were prepared to pay in order to be able to consume X units. The Dairy Board was a little surprised when Harvard University's Michael Porter did not endorse this argument in his study of New Zealand's competitiveness; but it held to its position.

In this writer's view, a turning point in this debate came when Roger commissioned an Australian economist, Denis Hussey, to report on the issue. Hussey's analytical contribution was to make a convincing case that it was not in the Dairy Board's commercial interests to

induce over-production of milk, yet this was what it was doing because it was paying farmers a price for milk that included a return on off-farm assets owned by the Board. The Board itself could see the logic of this position and the unbundling issue has remained central to the resolution of the Dairy Board's dilemma ever since.

Although Roger became a member of the Mont Pelerin Society during his time as executive director of the Business Roundtable, he never sought to justify or explain that decision, or to proselytise about the Society's virtues. Nor did he make the time to read much libertarian literature.

I think he was at the classical liberal end of the spectrum, partly out of a deep respect for the integrity, dignity and worth of New Zealanders as individuals that left little room for paternalism, partly out of respect for the evidence of the efficacy of decentralised spontaneous processes for harnessing dispersed information (see in particular his 2004 paper on the Wisdom of Crowds) and partly because he had no illusions about the strengths and weaknesses of government.

But his membership of the Society may have reflected a change in emphasis as between liberty and efficiency. During his time in the public service, the fundamental guide to policy advice was to find ways of obtaining better outcomes from a given level of resources, that is of improving economic efficiency, with Pareto optimality being the bedrock concept, but the sum of producer and consumer surplus being a more pragmatic application with dynamic efficiency considerations added where relevant.

That efficiency focus came through strongly in Treasury's revolutionary 1984 *Economic Management* advice to the incoming government. Efficiency is not, of course, the only consideration.

Economic Management did acknowledge the importance of equity and the Roundtable has published extensively on the importance of equity and fairness for policy-making and community well-being, including a monograph by Richard Epstein and a book entitled *Equity* as a Social Goal.

But efficiency and equity are not the only competing considerations. Respect for the integrity of the individual, implies a presumption in favour of liberty in its own right. I suspect that an examination of Roundtable documents would find a tendency to put more weight on the presumption in favour of liberty as the years went by. If so, this could partly be a tribute to the law and economics perspective brought to its work by Richard Epstein.

This presumption is at odds with paternalism and with the common interpretation of the behavioural economics literature that governments and bureaucrats are relatively immune from the flaws, relative to some ideal, that are considered to infect individual behaviour. Such presumptions are so strong that in recent decades it has sometimes seemed that words like liberty and freedom were ideologically verboten in public sector documents. The unequivocal statement in the Legislation Advisory Committee Guidelines that a presumption in favour of individual liberty is a fundamental common law principle is a distinguished exception. Roger wrote many articles and speeches making the case for economic freedom and the commonly superior efficacy of markets compared to specific and intrusive state direction and control.

Another important and fundamental debate in relation to public policy is the degree to which attempting to give policy advice is futile. The argument is that policy decisions are made by politicians on the basis of counting voters' heads. If voters have already worked out where the national interest lies and where their overall self interest lies, advising them or politicians to act differently is a waste of everyone's time. Why continue to offer policy advice if the arguments have already been considered and rejected? Moreover, anyone who calls influentially for the removal of statutory privileges from entrenched vested interests is guaranteed to be subject to verbal attacks or worse. The thoughtful public policy adviser has to ask why a government that is concerned with getting re-elected should listen to the adviser rather than to the votes of the vested interests.

A current example is the prime minister's acknowledgement that the only reason for continuing with interest-free student loans is the power of the student vote. Why would anyone's advice that the policy is making the country worse off make any difference to the policy decision? How can ideas about what is good hope to triumph over the reality of entrenched interests and the need for politicians to get re-elected?

Roger thought deeply about these fundamental questions while working in the Treasury prior to 1986. He gave his enduring answer in an essay that he saw as his departing gift to the Treasury. It was published by the CIS in 1988 as a 25 page monograph titled *Ideas, Interests & Experience*.

This little-known, but deeply thoughtful, essay acknowledged the difficulty, identified the danger that that the policy adviser would seek short-term policy gains based on exploiting ignorance, and found some comfort in the evidence that ideas to matter and that voters do learn from experience what works and what does not work over time.

Roger concluded that economists and economic agencies should use their acquired knowledge to shape the ideas that interact with interests and experience in the community, in an open, transparent and accountable manner. They should stick to the high road of giving the best advice they can and "avoid the advisory habits of the swamp, even if the journey is frustrating and sometimes very long".

One example of how long the journey can be and of how Roger stuck to the high road is his long advocacy of ending the ACC's statutory monopoly over the provision of accident compensation. Richard Epstein observed many years ago that Roger eschewed the option of using the latest public scandal about abuse of the scheme to make the case for reform. Instead his advocacy was always focused on making the principled case for competition and choice.

Few people have the patience to stick to the high road for public policy reform. In addition to the ACC and Dairy Board cases mentioned here, by the time of his death Roger had spent a decade diligently pushing the case for a Regulatory Responsibility Act, and only a few years less than that in pushing for a taxpayer bill of rights in New Zealand. The battle for a fundamental reform of the Resource Management Act stretched over at least two decades, and continues. So does the battle between ideas, interests and experience about privatisation.

But it is not only the advocates that need that patience, their funders need to be patient too. It is an enormous credit to Roger that he had the patience and was able to sustain the patience of funders for so long.

Notwithstanding his enormous commitment to work-related activities, Roger cared greatly for his family, while protecting them as best he could from the travails of his public position. He is survived by his wife Catherine Isaac, three sons from a previous marriage, their mother and one grandchild. A second grandchild arrived in January this year.

It is fitting to end with this tribute from his much admired friend and colleague, Richard Epstein:

Today New Zealand ranks near the top on most indices of economic freedom. Much of the credit for that improvement goes to Roger, whose dedication and wisdom has made the world a much richer place. We shall all miss him greatly, for the grandness of his character, for the strength of his moral fibre, for his clarity of his thought, and for the warmth of his friendship.

Bryce Wilkinson



FROM THE 2B RED FILE

by Grant M. Scobie (grant.scobie@treasury.govt.nz)

The summer break always holds the expectation that I will catch up on the ever mounting pile of books and even write three 2BRED files so I am ahead for the year. I just love the whooshing sound of New Year resolutions as they go flying out the window. Fishing and the inevitable bits of R&M around the bach seemed to displace what time I thought I'd have – so no break and we won't mention the word summer (I was in Washington DC prior to Xmas and it was almost warmer than Wellington).

However, knowing my obligations to my readers (both of them) I have settled back into serious reading mode. Our entree this time is by an economist well known here in New Zealand. *Tyler Cowen (2011) How America Ate All the Low-Hanging Fruit of Modern History, Got Sick, and Will (Eventually) Feel Better.* (New York: Dutton). Cowen's essential point is that the USA has had the good times, lived thinking it was richer than it really was, and now faces belt tightening and slower growth.

All of this is in a readable, almost racy, style in 84 pages (with useful chapter notes and a good index to follow). Education and innovation are two of the dominant themes. The USA has expanded its education system, raised participation and had a sustained period of productivity growth. But now things get tougher. The education system is producing a long tail of under achievers and better quality and greater accountability are needed (sounds like Kiwilandia to me?).

But he pins his hopes on the growing wealth of India and China that will create a demand for innovation as benefits will come from expanded markets; that the internet will help create a smarter better connected world; and that elementary schools will teach everyone to read and write, a challenge up to which they have not been so far. But don't hold your breath – recovery and a return to real growth is definitely for the long haul.

'Economists have made room for economic stability and for growth. But poverty for want of a theory is lost in economics...' These were the opening lines of a paper by Nobel Laureate T. (Ted) W. Schultz entitled "Investing in Poor People: An Economist's View" published in the American Economic Review (1965) 55(1-2), pp. 510-520. Much has been written and many approaches tried to address poverty in the intervening years. And it would be churlish not to acknowledge success where it has happened; millions in Asia are better off today than their parents or grandparents. Yet arguably Schultz's claim still rings true.

Part of the problem may well lie in the broad sweeping aggregate approaches that have been propounded, whether it was roads and dams (and their trickle down to the poor), getting the prices right (the Washington consensus of the 1980s), or the neo-institutional view (rule of law, enforcement of contracts, defined property rights). Much of what passes for development economics falls into these boxes. Of course (thank goodness) there are other views: William Easterly is one who has constantly snapped at the heels of the development establishment pointing out their failures.

And there have been exceptions: Muhammad Yunus and his micro finance movement (the Grameen Bank) and hundreds of NGOs that work on the ground have sought to fly at lower altitudes than the World Bank.

But few have really followed in the footsteps of Schultz and have started by trying to understand why the poor behave the way they do. Why for example, when Harvard's School of Public Health ran a nutrition programme in Bogota, did the recipients of the food parcels not consume all the extra calories and proteins provided, so that after the 'free' food, their consumption levels still remained below the recommended daily allowances?

Now we have a fresh look by two outstanding development economists: Abhijit V. Banerjee and Esther Duflo (2011) Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty (New York: Public Affairs). The authors draw on extensive field work in many countries to generate new insights into human behaviour and the lives of the poor. They draw on the evidence from micro datasets to pepper the volume with examples and to address questions such as: are there really a billion hungry people? What is wrong with large families? Why don't poor people want insurance? Why don't the poor save more?

No sweeping conclusions here – just small mincing steps in health, education, farming practices, electrification, communications ... all tailored in way they are congruent with the needs, incentives, constraints and aspirations of the poor. They, not the foreign aid bureaucrats know what is good for them. The authors won the Financial Times and Goldman Sachs Business Book of the Year Award 2011 (www.ft.com/bookaward).

Now be honest dear reader - do you know exactly what the acronym MONIAC stands for? Well, rather than turn to page 14 to find the answer as one so often has to do in such cases, let me refresh your memory: *Monetary National Income Analogue Computing Machine.* And shame on any member of the New Zealand economics profession for whom the name A.W.H. Phillips does not immediately spring to mind. The year 2008 saw your Association sponsor the biggest gathering of economists ever held in New Zealand. Over 500 participants from all over the globe gathered in the Wellington Town Hall for a conference to celebrate the 50th anniversary of the publication of that article now known to all as the Phillip's curve.

But the fascination with this Kiwi engineer turned social scientist did not end. A further conference was organised by the University of Trento in Italy to celebrate the 60th anniversary of the birth of MONIAC- that truly amazing contraption of pipes, pumps, valves and tanks that embodies more control theory and differential equations than I will ever fully appreciate. I can only urge you, if you have not done so to stop and see a working version in the museum of the Reserve Bank in Wellington.

The fact that we have this original albeit restored version in New Zealand is due to the interest and persistence of the present governor, Alan Bollard, a long-time Phillips-phile. Alan's latest contribution has been to pen a preface for a special edition of Economica politica: Journal of Analytical and Institutional Economics (Special Issue, 2011, http://www.mulino.it/edizioni/ riviste/scheda_fascicolo.php?isbn=23434). The issue contains 12 articles by Phillips scholars and is packed with colourful gems about the history of the machine, its development, its hydraulics, its mathematics, its use in teaching and its dispersion from LSE to other corners of the globe (not the least of which is the efforts to trace the fate of a copy bought by that far sighted organisation, the Central Bank of Guatemala). The 1950 *Economica* paper by Phillips is reproduced as is a facsimile of a type-written manuscript of his with hand drawn figures. And no such volume would be complete without the cartoon from **Punch** (Issue 15, April 1953) with a caricature of the machine.

"FRAMES"

by Stuart Birks, k.s.birks@massey.ac.nz

Framing involves, "selection, emphasis, exclusion and elaboration" (Severin & Tankard, 1997, p. 320). I decided to call this column "Frames" to emphasise that, whenever we (economists or others) attempt to describe a phenomenon, we go through a framing process. This is universal in any description. "Every narrative account necessarily presents some things and not others; consciously or unconsciously, every narrative makes assumptions about how the world works, what is important, what makes sense, and what should be" (Schudson, 2003, pp. 35-36). The same applies to more formal statements of relationships as in mathematical or econometric models, and these in turn are shaped by our definitions and measurement of variables, including the associated aggregations over time and space. Grouping and categorisation define the variables and hence the relationships that we consider.

While these aspects of analysis are inevitable, they play a large part in determining what we see and how we understand our environment. Consequently, they should not then be ignored. Lawson identifies problems with current approaches:

"If economic data record phenomena generated within an open and highly inter-related social system, and mainstream economists insist on analysing them using methods which presuppose they record social phenomena generated in systems that are closed and atomistic, any claims by these economists to be in touch with reality just because data are involved are not well founded. Indeed, they merely reveal the level of misunderstanding involved." (Lawson, 2003, pp. 21-22)

Although Lawson argues for ontology that overcomes such problems, this has yet to be developed.

There is a tendency, perhaps arising from the way economics is taught, or as a product of our own rhetoric as self-proclaimed experts in the field, to consider findings based on mainstream theory to be directly relevant to the real world. This includes the desirability of competitive markets, or of free trade, and perhaps even the so-called Coase Theorem, despite Coase pointing out that he has been misrepresented (Coase, 1991). A reluctance to forego the authority associated with an impression of wisdom about the economy would be understandable, but it may be causing us the embarrassment of having been caught out (as, perhaps, with the GFC).

Recognition of the need for more nuanced approaches can easily be found. To quote Rodrik (2007, p. 3):

"...the tendency of many economists to offer advice based on simple rules of thumb, regardless of context...is a derogation, rather than a proper application of neoclassical economic principles."

Also a paper on development (Lin, 2011) questioned the application of theory without regard to specific circumstances (of country and time). It highlighted three points: (i) Optimal structure (industry and infrastructure) depends on level of development; (ii) development as a continuum, not a small number of discrete states; (iii) changing states involves externalities, and government involvement is desirable.

A consideration of language highlights the way that the terms used can frame issues. While bi-lingual dictionaries might suggest that words are in a one-to-one relationship across languages, crude translations by this method are likely to give meaningless results.

One interesting analysis, with a clear relevance for framing, considered the effects of language differences on behaviour:

"I find that speakers of languages with little to no grammatical distinction between the present and future...engage in much more future-oriented behavior." (Chen, 2012, pp. 1-2)

One interpretation of Plato's allegory of the cave (http://www.youtube.com/watch?v=d2afuTvUzBQ) would be that the shadows are our models and theories, in which case he is suggesting that we should look beyond them for a more nuanced understanding of our environment. A paper by an economist raises concerns about the state of Australian higher education (Lodewijks, 2011). He includes an entertaining account of the dissonance between educationalists recommendations and what works for students. We should be careful that economists' recommendations do not suffer from the same problem.

Although these perspectives seem to have received little attention in recent years, and they are presented in relation to more recently popularised concepts, they are not new. We can see similar points raised by Hayek in 1974 and by Keynes in a work originally published in 1937:

"I prefer true but imperfect knowledge, even if it leaves much indetermined and unpredictable, to a pretence of exact knowledge that is likely to be false." (Hayek, 1974)

"[I]n ordinary discourse, where we are not blindly manipulating but know all the time what we are doing and what the words mean, we can keep 'at the back of our heads' the necessary reserves and qualifications and the adjustments which we shall have to make later on." (Keynes, 1973, pp. 297-298)

If we do not teach ifs and buts of theory, we should at least qualify its applicability. We are presenting analogies. These have limitations. We should note the simplifying assumptions and the other important aspects that should be considered for application to the real world. Some of these and related issues are discussed in an online conference on economics ethics. The papers can be accessed via: http://weaethicsconference.wordpress.com/

- Chen, M. K. (2012). The effect of language on economic behavior: Evidence from savings rates, health behaviors, and retirement assets. Retrieved from http://faculty.som.yale.edu/keithchen/papers/LanguageWorkingPaper.pdf
- Coase, R. H. (1991). The institutional structure of production Nobel Prize lecture. Retrieved 3 March 2012, from http://nobelprize.org/nobel_prizes/economics/laureates/1991/coase-lecture.html
- Hayek, F. A. v. (1974). The Pretence of Knowledge. Retrieved 1 March 2012, from http://www.nobelprize.org/nobel_prizes/economics/laureates/1974/hayek-lecture.html
- Keynes, J. M. (1973). *The collected writings of John Maynard Keynes* (Vol. 7). London: Macmillan.
- Lawson, T. (2003). Reorienting economics. London: Routledge.
- Lin, J. Y. (2011). New Structural Economics: A Framework for Rethinking Development. *The World Bank Research Observer*, 26(2), 193-221.
- Lodewijks, J. (2011). The elephant in the room: Conflicting demands on academics in *Australasian higher education*. *Australasian Journal of Economics Education*, 8(1), 17-40.
- Rodrik, D. (2007). *One economics, many recipes: globalization, institutions, and economic growth.* Princeton: Princeton University Press.
- Schudson, M. (2003). *The sociology of news*. New York: Norton. Severin, W. J., & Tankard, J. W. (1997). *Communication theories: origins, methods, and uses in the mass media* (4th ed.). New York: Longman.



INSIGHTS FROM BOOK TRANSLATIONS ON THE INTERNATIONAL DIFFUSION OF KNOWLEDGE

Increases in the aggregate stock of knowledge possessed by societies lie at the heart of modern economic growth and intellectual development. These increases, made possible only by existing knowledge, are driven both by innovation at home and by the diffusion of ideas developed abroad. The implications of idea flows are striking: Klenow and Rodriguez-Clare (2005) estimate world production would be just 6% of its current level if countries did not share ideas. Yet, although theoretical economists have studied ideas and their diffusion extensively, empirical studies are scarce because ideas are inherently difficult to measure. Empirical studies of idea flows tend to use proxies such as trade flows, foreign direct investment, migration, and patent citations. However, with the exception of the latter, these measures are not pure idea flows, and do not capture the key properties of ideas, namely non-rivalry and disembodiedness.

For her doctoral dissertation, completed recently at Stanford University, Isabelle Sin proposed a novel measure of idea flows that captures the properties of non-rivalry and disembodiedness, namely book translations, and used it to study the factors that affect the international diffusion of ideas. The purest measure of idea flows used previously is patent citations; book translations offer a complementary measure of knowledge diffusion that captures a broader definition of knowledge. Although much of the endogenous growth literature has implicitly or explicitly restricted its attention to technological ideas narrowly defined, a much wider range of ideas are likely to be important for economic and intellectual development. Book translations encompass a broader set of ideas than purely technological knowledge. They are also generated by a quite different process to patent citations, meaning the two measures capture different aspects of knowledge flows.

In order to study book translations empirically, Sin constructed a new data set from an international bibliography of translations collected by the United Nations Educational, Scientific and Cultural Organization. The data set contains detailed bibliographic information on every translation published between 1980 and 2000 for up to 80 countries each year. This amounts to over two million translations. For every fifth year from 1949 to 1979, she also digitized from hard copy a representative sample of the translations published annually in each country, including information on the country and year of translation, the subject of the book, the original and target languages, and the length of the book. This amounts to approximately 100,000 translations. For specific sub-samples she also collected additional information such as the year in which the original book was first published, the sub-field of the book, and the author's political views. These data allowed her to draw a detailed picture of the changing translation flows between a wide range of countries for the period 1949 to the present.

First looking at the data descriptively, she found the most translated language is English, which accounted for over 46% of all translations between 1949 and 2000, rising from 31% in 1959 to 61% in 1999.

The most prolific translating country in 1959 was the Soviet Union, which translated nearly 5,000 titles that year. By 1999, after the collapse of communism in Eastern Europe and the disintegration of the USSR. Germany had risen to be the top translating country with nearly 10,000 translations annually; it was followed by Spain, France, and Japan. European countries translate more on average than countries on other continents, and Muslim countries (such as Albania, Egypt, and Turkey) translate 73% fewer titles than Roman Catholic countries (such as Peru, France, and Slovakia), even after controlling for population, income and openness. She also found that in the years 1998-2000, the bulk of translated books were translated within 10 years of publication, though the speed with which titles are translated varies considerably by original language and translating country. English and Italian books are translated faster than French and German books on average; richer countries and countries that trade more translate faster.

To study how distance affects translation flows between countries. she next estimated a "gravity" model of translations, in which translation flows between two countries depend on the economic sizes of the countries and the distance between them. Despite translations having zero transportation costs, she found that translations decrease significantly with physical distance, with 3 to 5% decrease in translations for every 10% increase in distance in the 1990s; however, distance inhibited translations even more in the past. Surprisingly, the elasticity is larger for sciences than for the arts, suggesting that distance inhibits the flow even of more "useful knowledge". Translations decrease in distance especially in less developed countries, suggesting countries with more to gain from adopting foreign ideas are less able to access them. She then augmented the gravity model to include measures of linguistic. religious, and cultural distance. These were all shown to reduce translations, but together they account for only a quarter of the correlation between translations and physical distance. She also found translations occur significantly faster between geographically closer countries, suggesting the relative importance of supply-side frictions in the flow of ideas.

Finally, in joint work with Ran Abramitzky, she studied how the collapse of the Communist regime in Eastern Europe at the close of the 1980s affected the international diffusion of ideas. They showed that while translations between Communist languages decreased by two thirds with the collapse, Western-to-former Communist translations increased by a factor of seven and reached Western levels. Convergence was full in economically-beneficial fields such as sciences and only partial in culturally-beneficial fields such as history. The effects were larger for more Western-oriented countries. These findings help us understand how institutions shape the international diffusion of knowledge and demonstrate the importance of preferences in determining the type of ideas that diffuse into a country.

In future work, Sin hopes to expand her research on the international diffusion of ideas and explore possible ways for New Zealand to increase the extent to which it takes advantage of foreign advances in knowledge. She also plans to study the diffusion of ideas within New Zealand, such as between universities and industry, and as carried by workers between different firms.

Abramitzky, R. Sin, I. (2011) Book Translations as Idea Flows: The effects of the collapse of Communism on the diffusion of knowledge. http://www.motu.org.nz/publications/detail/book_translations_as_idea_flows_the_effects_of_the_collapse_of_communism_on

Klenow, P. and Rodríguez-Clare, A. (2005) Externalities and Growth. *In Handbook of Economic Growth*. Vol. 1A (edited by Philippe Aghion and Steven N. Durlauf). New York: Elsevier.

Isabelle Sin joined Motu Economic and Public Policy Research as a fellow in January 2012. Her full dissertation is available for download at http://purl.stanford.edu/df340nb1179.

BLOGWATCH

by Paul Walker (paul.walker@canterbury.ac.nz)

On the rest-of-the-world blogging front the new boys on the blogging block are Daron Acemoglu and James Robinson. Their blog is "Why Nations Fail" and can be found at http://whynationsfail.com/. The blog is related to their forthcoming book, also called, "Why Nations Fail". Well worth a look.

At the "Becker-Posner Blog" http://www.becker-posner-blog.com/ Capy Becker asks `Is Capitalism in Crisis?' http://www.becker-posner-blog.com/2012/02/is-capitalism-in-crisis-becker.html In his view: "Capitalism lost prestige as a result of the severity of the Great Recession, but so too did governments. I do not believe that capitalism is in a real crisis, partly because the defects in financial and housing markets can be corrected to a significant extent. More importantly, reliance on competitive capitalism has been the only way that countries have been able to reduce poverty and continue to grow over long periods of time. The great majority of developing and other countries will not forget this fundamental reality as the world pulls out of the Great Recession."

Posner's http://www.becker-posner-blog. view com/2012/02/is-capitalism-in-crisis-posner.html> is a little different: "I think there may be a looming crisis of capitalism, though one that has nothing to do with banking, but rather with technological progress, and specifically with the effect of that progress on income inequality. Technological progress in recent decades has included not only the well-known advances in computerization, communications, and medical treatment, but also important advances in marketing, including political influence and manipulation, and management. The overall effects of these advances on many fronts have included a sharpening of competition, an increase in government debt to finance middleclass entitlements, particularly medical, a reduction in the demand for manual labor, and an increase in the financial returns to IQ and to higher education (which are correlated). These developments seem to be increasing the inequality of income and wealth and creating sharper class divisions than the nation had become accustomed to in the decades following the end of the 1930s depression."

Winton Bates at his blog "Freedom and Flourishing" http://wintonbates.blogspot.co.nz/ asks 'How does income inequality affect happiness?" http://wintonbates.blogspot.co.nz/2012/02/how-does-income-inequality-affect.html. He argues there are at least three different parts to the complex relationship between income inequality and happiness that might be relevant: (1) the effects of relative income levels on happiness, (2) the more general effects of income inequality on happiness and (3) the effects of income inequality on happiness inequality.

At the "Knowledge Problem" blog http://knowledgeproblem.com/ Michael Giberson reminds us that A. C. Pigou was into public choice before there was any public choice to be into http://knowledgeproblem.com/2012/02/20/a-c-pigou-public-choice-economist-on-the-use-of-government/. Giberson quotes Pigou from 1920: "It is not sufficient to contrast the imperfect adjustments of unfettered enterprise with the best adjustment that economists in their studies can imagine. For we cannot expect that any State authority will attain, or even wholeheartedly seek, that ideal. Such authorities are liable alike to ignorance, to sectional pressure, and to personal corruption by private interest. A loud-voiced part of their constituents, if organized for votes, may easily outweigh the whole."

From VoxEU.org http://www.voxeu.org/ comes this posting by Simon Wren-Lewis about 'The return of schools of thought in macroeconomics' http://www.voxeu.org/index.

php?q=node/7656>. Wren-Lewis argues that just five years ago, macroeconomists talked about a new synthesis, bringing together Keynesian and Classical ideas in a unified framework. Following the Great Recession, it appears that macroeconomics has once again split into schools of thought. Wren-Lewis seeks to explain why macroeconomics fragments in this way.

On the New Zealand blog front, at his blog "Fair Play and Forward Passes" http://fairplayandforwardpasses.blogspot.co.nz/ Sam Richardson comments on the 'Hamilton headache: Claudelands claims 'overly optimistic" http://fairplayandforwardpasses.blogspot.co.nz/2012/02/hamilton-headache-claudelands-claims.html. It's being reported that the \$68m Claudelands Events Centre in Hamilton is facing a \$1.5m deficit in its first year of operation along with projected deficits until 2014/5. Sam points out that "questions are rightly being asked after the initial projection was for a \$1.1m surplus in its business case." But as Sam also explains this is the same story we see all around the world: overstated measures of benefits, understated measures of costs and a projected bottom line that is much more palatable than what actually eventuates.

At "Groping to Bethlehem" http://gropingtobethlehem.wordpress.com/> Bill Kaye-Blake thinks he has found 'Another piece of the productivity puzzle' http://gropingtobethlehem.wordpress.com/2012/02/09/another-piece-of-the-productivity-puzzle/. Bill points to the fact that US GDP per hour growth accelerated from 1.3% 1980-1995 to 2.2% 1995-2006, whereas in Europe productivity growth slowed from 2.3% to 1.4% and notes that US people management practices could be one explanation for this difference. He goes on to say, "The finding is important for NZ. Here are some general observations about our economy:

- relatively low labour productivity growth
- relatively low investment, both capital shallowness and low R&D expenditure
- wide dispersion in managerial quality, with a long tail of low performers.

[...]

So — not only do low investment and poor management each affect labour productivity, but there is also an interaction term. The impact is magnified. Low productivity growth starts to be less of a puzzle to explain, although it is still hard to know what to do about it."

James Zuccollo at the "TVHE" blog http://www.tvhe.co.nz/ asks `Will the pseudoephedrine ban reduce P availability?' http://www.tvhe.co.nz/2012/02/23/will-the-pseudoephedrine-ban-reduce-p-availability/ Zuccollo looks at a Oregon study on the effects on the availability of P of a policy change making pseudoephedrine-based cold medicines prescription-only, and he concludes "So the ban on selling effective cold medicine over the counter had no observable effect upon the P problem, but does cause inconvenience for people with a cold."

At "Offsetting Behaviour" http://offsettingbehaviour.blogspot.co.nz/ Eric Crampton looks at 'Emissions elasticity and car import regulations' http://offsettingbehaviour.blogspot.co.nz/2012/02/emissions-elasticity-and-car-import.html. He notes that New Zealand now bans the import of cars that fail to meet the Japan 05 emission regulations, which effectively bans older car imports. Not surprisingly used vehicle imports have fallen following the introduction of the new regulations. The question is, What will happen to used car affordability and to average fleet age? As Crampton argues vehicle emissions could go up: "If newer used imports become too expensive, folks will hold onto older cars with worse emissions for longer. The aggregate emissions profile can then get worse despite a cleaning up of the incoming cohort of vehicles."

HOW MANY ECONOMISTS DOES IT TAKE TO CHANGE THE PUBLIC SECTOR?

Wednesday 14th December saw the inaugural Government Economist Network Annual Conference at the James Cook Hotel Grand Chancellor. Two hundred economists and non-economists from the public sector, academe, research institutes and consultancies gathered to hear speakers from the newly-minted Minister of Finance to one of the youngest ever tenured professors at Harvard talk about a range of issues on economics in government. The event was chaired by MED's Head of Economic Research, Philip Stevens, who did his best to give the lie to economics' reputation as the 'dismal science'.

The importance the public sector and the incoming government placed on the role of economic analysis in policy-making was clearly signalled by the two opening speakers: Gabriel Makhlouf, Chief Executive and Secretary to the New Zealand Treasury, and Hon Bill English, Minister of Finance and Deputy Prime Minister. Mr English arrived quite literally straight from receiving his warrant. Perhaps his first official act as a Minister was to talk about the importance of high quality economic analysis. Mr English joked that he came out of the lift at the wrong floor and was confronted by a group of happy people in party hats and immediately knew that "these guys are definitely not economists". He repeated his desire for officials to 'scare me' – providing innovative policy options backed by sound analysis. He also worried about such analyses being neutered by management prejudging what he would like to see.

The opening remarks were followed by Professor Neil Quigley from Victoria University of Wellington talking about the implications of incomplete contracts for the organisation of the public sector. Prof Quigley suggested that whilst the theories of agency, transaction costs and industrial organisation on which the New Public Management of the 1980s were still relevant, subsequent thinking about incomplete contracts and residual control rights were also a useful approach for a range of contemporary public sector investment, ownership and governance problems.

Drs Graham Scott and Veronica Jacobsen talked about building economic capability in the public sector. Dr Scott reflected on the findings of the Review of Expenditure on Policy Advice of weaknesses in: the commissioning of advice, leadership and management of policy units, the processes within and across policy units, and systems for managing quality, cost, HR and knowledge. Dr Jacobsen made the case for the importance of economics for policy. Her case was that economics is a way of





Treasury Secretary Gabriel Makhlouf and the Minister of Finance, the Hon Bill English, talk about the fundamental importance of economics to quality policy making





Adolf Stroombergen and Chris Schilling enjoy a drink and Arthur Grimes listens intently as Nick Hallett explains how the debate about computable general equilibrium versus cost benefit analysis is wrong-headed and is rather one of good versus bad cost benefit analysis. Pictured right, keynote speaker Harvard Professor Raj Chetty.

thinking that provides a sound starting point for analysis, a reality check on policy effectiveness and a means of assessing the merits of alternative policies. Empirical economists unpick what is happening in the real world and, without sound evidence and analysis, policy risks being based on intuition, instinct or even dogma. She also talked about building capability, emphasising that it is not just about training; it also requires leadership and management, engagement with the broader community (including external experts) and professional development opportunities. It was no surprise that she felt that the GEN itself was a great vehicle for building economic capability across the public sector.

The keynote speech was delivered by Professor Raj Chetty. Prof Chetty is one of the youngest tenured professors in the history of Harvard University and was named by the *New York Times* as one of the top young economists in the world. He gave an inspiring and illuminating talk on work he and colleagues have been doing on the long-term impacts of teachers.

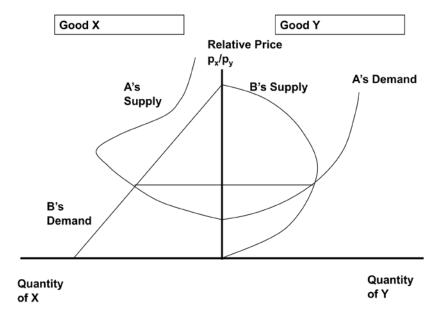
Prof Chetty gave an object lesson on how sophisticated analysis can be presented in a clear way to the non-economist and can be used to provide the basis for the consideration of clear policy options. He untangled the influences of parents, peers and the local environment on pupil performance to uncover the impact teachers on test scores and, more importantly, future life outcomes such as earnings, college attendance and teenage pregnancy.

The final session of the day was entitled 'Beyond Cost Benefit Analysis'. Dr Arthur Grimes from Motu Economic and Public Policy Research considered the impact of considering real option in the cost-benefit analysis of government investments. He showed how ignoring them and relying on standard cost-benefit analysis may lead to the wrong choices being made, illustrated with the example of Auckland's Harbour Bridge and Northern Motorway. Following this, Dr Adolf Stroombergen of Infometrics and Chris Schilling of the New Zealand Institute of Economic Research Inc (NZIER) joined forces to talk about computable general equilibrium versus cost benefit analysis. They were joined by Arthur Grimes and MED's Nick Hallett, Chief Advisor in the Energy and Communications Branch, for a panel discussion on project evaluation. Nick Hallett kicked the discussion of by explaining how the debate about computable general equilibrium versus cost benefit analysis is wrong-headed and is rather one of good versus bad cost benefit analysis. The conclusion of the discussion was 'know what you are buying'.

All agreed that it had been a successful event, although no formal evaluation was undertaken. The battle to improve economics capability in the government and the quality of policy advice starts here!

FINE LINES: A FAVOURITE DIAGRAM

John Creedy (john.creedy@vuw.ac.nz; John.creedy@treasury.govt.nz)



This is a back-to-back diagram of trade or exchange involving two goods X and Y and two traders A and B. Person A is a demander of good Y and supplier of good X, while B is a demander of good X and supplier of good Y. For this two-good model, it is only necessary to specify demand functions, and the associated supply functions are obtained directly from the reciprocal demand (balance of payments) property that the supply of Y equals demand for X multiplied by the relative price of X to that of Y. The diagram here assumes that each demand is a linear function of the relative price. Of course it is really only necessary to use one side of the diagram, and the left hand side is the most convenient. Indeed it is quite tricky to draw the full diagram when there are three equilibria. The diagram shows immediately that: backward bending supply functions arise naturally in the reciprocal demand and supply context; multiple equilibria can exist (the demand and supply curves can intersect up to three times, and there can be two distinct equilibria when two coincide in a tangency position); hysteresis in price movements exists (for example, the relative price path is different for outward and inward shifts of B's demand curve); the relative price can 'jump' up or down in response to a very small change in demand in some ranges and; the middle equilibrium of three is stable. The distributional analogue of multiple equilibria is that if the curves are subject to random shocks over time, a multimodal distribution of relative prices can arise. If the demands are instead specified as quadratic functions of relative prices, there can be five equilibria, with stable and unstable points alternating. I first produced this diagram when converting Whewell's (1850) mathematical model of trade into diagrams. I later accidentally found, what I should already have known, that the left hand side (turned 90 degrees) is similar to diagrams produced by Walras (1874), when he converted Cournot's (1838) one-good model of trade between regions into a two-good model. On then finding the diagram in modified form in Launhardt (1885), I edited an English translation of that amazing book. Wicksell (1895) reproduced one of Launhardt's versions, and borrowed heavily from his discussion, but for some unaccountable reason Wicksell was highly, and unfairly, critical of Launhardt. The diagram seems to

have been largely forgotten, though Vickrey (1964) derived it from the Edgeworth Box diagram and a variant appears in Atkinson and Stiglitz (1980), based on Shapley and Shubik (1977). The full story even includes the colourful Dionysius Lardner, who escaped to France after an enormous fine was imposed on him in a famous divorce case. He translated part of Cournot, and drew a quadratic total revenue curve associated with a linear demand curve. In the diagram here, B's supply of good Y, corresponding to the linear demand for good X, is a quadratic function: Lardner's diagram merely needs his price axis changing to relative price. His book on Railway Economy started the amazing library of Foxwell (after Jevons encouraged him to buy it), whose collecting led to him being bankrupted twice. Lardner conclusively lost his argument with Brunel, after claiming that no steam ship could carry enough fuel to cross the Atlantic. For further details of the diagram and its properties, see Creedy (1999).

References

Atkinson, A. B. and Stiglitz. J. E. (1980) Lectures on Public Economics. London: McGraw-Hill.

Cournot, A. A. (1838) Researches into the Mathematical Principles of the Theory of Wealth (translated 1927 by N.T. Bacon and introduced by I. Fisher). London: Stechert-Hafner.

Creedy, J. (1999) The rise and fall of Walras's demand and supply curves. Manchester School, 67, pp. 192-202.

Launhardt, W. (1885) Mathematical Principles of Economics. Translated 1993 by H. Schmidt and edited by J. Creedy. Aldershot: Edward Elgar.

Shapley, L. S. and Shubik, M. (1977) An example of a trading economy with three competitive equilibria. Journal of Political Economy, 85, pp. 873-875.

Vickrey, W. S. (1964) Microstatics. New York: Harcourt Brace Walras, L. (1874) Elements of Pure Economics. Translated 1954 by W. Jaffe. London: Allen and Unwin.

Whewell, W. (1850) Mathematical exposition of some doctrines of political economy. Reprinted in Political Economy. Gregg International (1968).

Wicksell, K. (1895) Value, Capital and Rent. Translated 1954 by S. H. Frowein, London: Allen and Unwin.

THE FIVE-MINUTE INTERVIEW WITH... ARTHUR GRIMES

1. When did you decide that you wanted a career in economics?

I settled on economics a couple of years after leaving university, after flitting between music and economics. I finally realised that economics was more enjoyable as a career and music was more enjoyable as a hobby.

2. Did any particular event or experience influence your decision to study economics?

I was very politically aware and involved when I was at school in the 1970s, and that naturally led to a strong interest in economics.

3. Are there particular books which stimulated your early interest in economics?

I read *The Limits to Growth*, published by the Club of Rome assiduously (around 1974). At the same time I was fascinated by Paul Samuelson's *Economics textbook*. So I was well set up early on to entertain competing views on the nature of economic processes.

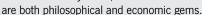
4. Did any teachers, lecturers or supervisors play a significant role in your early education?

Bruce Jones was my teacher at school. He had come to New Zealand from Australia to try and make the New Zealand Commonwealth and Olympic Games team as a 10,000 metre runner. He happened to have an economic degree - which was most unusual for teachers in the 1970s – and he really sparked my interest in the subject. As an undergraduate at Waikato, Brian Silverstone was a great teacher and mentor as was Prof John Ward. It was a small, but close-knit department and all the staff were available to discuss the subject. At LSE, I had some wonderfully inspiring teachers including: John Sutton, Richard Layard, Partha Dasgupta, Ken Binmore, David Webb, Charles Goodhart, Mervyn King (now BoE Governor) and my thesis

supervisor Chris Pissarides (now a Nobel Prize winner). Rod Deane was a great influence once I joined the Reserve Bank.

5. Do you have any favourite economists whose works you always read?

I am very eclectic in my reading and don't tend to have 'favourites'. However, if I had to name one, it would be Amartya Sen; his works



6. Do you have a favourite among your own papers or books?

The next one is always going to be the best! Of the past ones, I would probably go with the ANZAC Dollar book that I co-wrote with Frank Holmes (with Roger Bowden). It analysed both the pro's and con's of a currency union and stimulated plenty of debate and subsequent literature.

7. What do you regard as the most significant economic event in your lifetime?

- For New Zealand: the 1984-1991 reforms.
- For the world: the opening up of China under Deng Xiaoping

8. What do you like to do when you are not doing economics?

I play jazz saxophone and harmonica in my band *Percolator* – and yes we are available for gigs! I also occasionally play classical bassoon. Until recently, I was very involved in football as a player and then a coach, but now I'm content to just watch the Phoenix and whoever my adult sons are playing for. My wife and I enjoy plenty of walks around Wellington and in theWaitakeres, and swimming in the wild surf at Karekare is fantastic.



The Law and Economics Association of New Zealand is a registered charity which exists to advance the study and understanding of law and economics (the "and" being conjunctive!). LEANZ is run by a volunteer committee composed of economists and lawyers and functions mainly in Auckland and Wellington but we are keen to reach out to interested people throughout New Zealand.

LEANZ has a full programme for 2012. Our website is at <u>www.leanz.org.nz</u>. Our activities include:

- Regular monthly seminars February-November in Auckland and Wellington on a range of topics and attended by a range of economists, lawyers and others in the public and private sectors;
- 2. Annual General Meeting, this year in Wellington on 25 June to be addressed by Professor David Harper, a New Zealander who is a professor of economics at NYU.
- 3. a study day for academics teaching and researching law and economics on 26 June. Anyone who might be interested in this, and who has not already been contacted, should write to the President, Bernard.robertson@lexisnexis.co.nz

- 4. a downloadable very introductory course on law and economics will be available through the website later this year.
- 5. Fellowship of LEANZ: the minimum requirement to apply for election as a Fellow is 100,000 published words in law and economics, interpreted broadly, and five years membership (compoundable). Candidates are put forward for election by the current Fellows after assessment of their portfolio. Fellows may use the postnominal LEANZF.
- 6. Scholarships and Senior Scholarships: scholarships are to assist with masters or doctorate level study of law and economics with a view to teaching in New Zealand. Senior scholarships are intended to enable current academics with little or no exposure to law and economics to undertake a developmental opportunity with a view to affecting their teaching and research.

Membership of LEANZ is a mere \$75 and supports the seminar programme. Seminars are free and open to all, however, and readers are welcome to test the water by attending seminars and introducing themselves to committee members and those who live and work outside Wellington and Auckland are of course welcome to attend seminars that happen to be on when they are visiting.

RESEARCH IN PROGRESS...

Continuing our series on the research projects currently underway in Economics Departments and Economics Research Units throughout New Zealand, in this issue we profile the research currently being undertaken by economists on the various campuses of Massey University. The objective of this section is to share information about research interests and ideas before publication or dissemination - each person was invited to provide details only of research that is new or in progress.

Economics Research at the Massey University as at March 2012

Compiled by Stuart Birks (k.s.birks@massey.ac.nz) Contact details are available at: http://economics-finance.massey.ac.nz/staff.php

James Alvey J.E.Alvey@massey.ac.nz James Alvey is continuing work on ethical foundations of economics, especially in the history of economic thought. He is also continuing work on various aspects of the work of Adam Smith, especially his ethics and theology.

Faruk Balli <u>F.Balli@massey.ac.nz</u> has research interests lying between international macroeconomics and international finance. Currently he is working on topics including: risk-sharing and capital Gains; impacts of Turkish soap operas on inbound tourism of Turkey; time-varying spillover effects on the sectoral equity returns; determinants of portfolio holdings on sector of holder basis; and remittances and risk-sharing on the emerging markets.

Stuart Birks <u>K.S.Birks@massey.ac.nz</u> is researching conceptual and methodological aspects of economics, the relationship of theory to the real world and the implications of rhetoric and framing. This includes consideration of developments in pluralist and heterodox economics. He also has an ongoing interest in social issues and the operation of the law.

Sue Cassells S.M.Cassells@massey.ac.nz is currently engaged in two areas of research interest. Firstly, using choice modelling techniques for non-market valuation in the environmental economics context and secondly, environmental practices and attitudes within SMEs in the manufacturing sector.

Jianguo Chen J.G.Chen@massey.ac.nz is currently researching mainly in two areas: corporate finance and international financial market performance. He has several working papers of corporate finance: one on company's financing and accounting corruption behaviour (Chinese data), one on special relationship of top management (Chinese data) and another on product market competition and capital structure issues (New Zealand data). The other stream is based upon his previous research on the country vs. industry effects of international portfolio investment. One working paper discusses the research methodologies used in the area and the other is on the information effects.

Jing Chi J.Chi@massey.ac.nz is currently undertaking research on: (1) the performance of Chinese Initial Public Offerings (IPOs) in the new ChiNext market; (2) the pricing and performance of rights issues in the Chinese markets; and (3) how do mutual fund holdings affect corporate governance in China.

Hans-Jürgen Engelbrecht <u>H.Engelbrecht@massey.ac.nz</u> has on-going research interests in economic growth, innovation, knowledge-based economy and 'happiness' issues (including environmental and inter-disciplinary aspects). He is currently working on two projects. One tries to develop a general model of the innovation – subjective well-being (SWB) nexus which is currently missing from the literature. This is of interest to innovation researchers, and also evolutionary and Schumpeterian economists who arguably lack a meaningful perspective on social welfare. The second project explores the relationship between SWB, total (or comprehensive) wealth (instead of GDP) and natural capital in a) OECD countries and b) a wider sample of countries.

Simona Fabrizi S.Fabrizi@massey.ac.nz is researching: (1) the role of learning on firms' incentives to innovate and collude when entering new markets/introducing new products and the mechanism designs which help re-establish market efficiency; (2) the role of asymmetric information on corruption; (3) issues on competition and regulation in network industries, such as roaming in the mobile Internet; (4) the manipulations of consumers' reference-dependent preferences by upstream suppliers – such as via recommended retail prices – and their implications for competition policy and the treatment of vertical restraints.

Susan Flint-Hartle S.L.Flint-Hartle@massey.ac.nz is currently preparing the Franchising New Zealand 2012 survey in collaboration with Griffith University and the Asia Pacific Centre for Franchising Excellence. Massey and Griffith Universities will collaborate once again to undertake the second biennial survey of franchising in NZ with the aim of obtaining current information about the size, growth and characteristics of the franchising sector. The information will provide current knowledge about franchising practices in New Zealand and benefit those involved, including franchisors, franchisees, franchising consultants, service providers, educational institutions, and government. As there is no registration mechanism for franchise organisations, the survey will provide relevant information about the industries and organisations involved in franchising in 2012. The Massey research team is lead by Dr Susan Flint-Hartle from the School of Economics and Finance, Albany.

Rukmani Gounder R.Gounder@massey.ac.nz is researching i) Education, Health and Poverty Reduction in Small Island Nations estimating the monetary effects of education at the aggregate and disaggregated levels; returns to education and the determinants of poverty utilising basic needs based poverty and food poverty in the case of Fiji. ii) Aid for Trade in the Asia-Pacific - evaluating the effectiveness of Aid for Trade in Asia-Pacific nations using a framework based on the linkages between inputs, objectives, outputs, outcomes and impacts. iii) Motivations of Remittances Flows to the Pacific Islands – the impact of remittance flows from New Zealand to Tonga, Niue and Fiji. iv) The effect of Maritime Transport Cost on Trade: Asia-Pacific Economies - examining the effect of maritime transport cost on bilateral trade in the Asia-Pacific region. v) Foreign Direct

Investment in the Pacific Island Nations – empirical analysis of the linkage between FDI inflows and economic growth, determinants of FDI and the productivity effects of FDI by sectors in PNG, Fiji, Tonga, Samoa and Solomon Islands.

Chienwei (Jerry) Ho <u>C.Ho@massey.ac.nz</u>, is mainly focused on the areas of behavioural finance and asset pricing. Specifically, he is interested in exploring the relationship between investor sentiment and asset pricing. The topics he is currently working on include 1) Whether investor sentiment is a priced factor? 2) Can investor sentiment as a priced factor help to capture the financial market anomalies, namely, the size, value, and momentum effects? 3) How investor sentiment differently affects the stock returns at the market level across countries? 4) Does investor sentiment influence stock return volatility as well as stock returns? 5) How the degree of fatality in air crash events affects the stock prices of the crash and non-crash airlines?

Claire Mathews C.D.Matthews@massey.ac.nz My current research is exploring issues related to KiwiSaver, and payment methods. The KiwiSaver research includes both the behaviour and attitudes of individuals, as well as activity at the provider level. The payment methods research mainly focuses on consumers' choices about payment methods, including mobile banking and direct debits. My broader research interests include retail banking more generally, financial literacy, financial advice, and retirement income.

Hatice Ozer-Balli <u>H.Ozer-Balli@massey.ac.nz</u> broadly focuses on applied time series econometrics and international finance. Currently she is working on many different topics including

- Impacts of Turkish soap operas on inbound Tourism of Turkey
- Income and consumption smoothing
- Risk Sharing for MENA countries
- Operational efficiency of Asia Pacific airports
- Median Unbiased Estimation of Structural Change Models: An Application to PPP
- Forecasting airport passenger traffic: the case of Hong Kong International Airport
- Wind farms and residential Property Values
- New Zealand's preferential trading arrangements: Implications for the New Zealand dairy industry
- Time Varying Spillover Effects on the Sectoral Returns for Australian and New Zealand Equity Markets

Amelia Pais A.Pais@massey.ac.nz is working on measures to assess which factors increase banks' systemic and individual risks; and which measures regulators should undertake to better manage those risks.

Kim Hang Pham Do K.H.Phamdo@massey.ac.nz Kim Hang's main research interests are the following: (1) a bargaining approach to transboundary water management in joint work with Harold Houba and Xueqin; (2) how issue linkage could help mitigate externalities in transboundary river basins in joint work with Ariel Dinar and Daene McKinney; (3) efficient allocations for games with externalities.

Sam Richardson <u>S.A.Richardson@massey.ac.nz</u> is currently researching in the economics of sport. Areas of particular interest include examining the realised impacts of major sporting events hosted in New Zealand, the justification for government involvement in the construction of sports facilities, measuring consumer benefit from sporting events, the role of sport in economic development, and the wider relationship between professional sport and the economy. Many of these ideas are manifested in their infancy in occasional blog postings at Fair Play and Forward Passes, http://fairplayandforwardpasses.blogspot.co.nz/.

Shamim Shakur <u>S.Shakur@massey.ac.nz</u> researches primarily in the areas of international trade, agricultural policy and financial economics. Most recent research activities include WTO trade negotiations, regional trade cooperation and computable general equilibrium (CGE) modelling. His current research is focusing on economic integration in the Asia-Pacific region.

David Smith <u>D.J.Smith@massey.ac.nz</u> David's primary research interests are in topics related to corporate finance and in particular the capital structure and financing behaviour of New Zealand firms. He is currently researching the capital structure choices made by New Zealand firms and factors that determine how quickly New Zealand firms adjust towards target capital structures.

David Tripe <u>D.W.Tripe@massey.ac.nz</u> David Tripe's research focus relates to the New Zealand and Australian banking systems. He has been looking at the effect of the Reserve Bank's new rules for bank liquidity, and at the expansion of the Australian banking market to more readily incorporate building societies and credit unions seeking bank status. This links to other work on the returns on equity being earned by banks – what is a long-run sustainable return in a competitive market?

Carolyn Wirth <u>C.G.Wirth@massey.ac.nz</u> is currently investigating the corporate implications of environmental regulatory delay, by studying the NZ stock market reaction to announcements by NZ listed companies of their progress in gaining resource consents to undertake major capital expenditure projects.



FIRST CALL FOR PAPERS 53RD NEW ZEALAND ASSOCIATION OF ECONOMISTS ANNUAL CONFERENCE

TO BE HELD AT THE PALMERSTON NORTH CONVENTION CENTRE 27 JUNE - 29 JUNE 2012

The New Zealand Association of Economists is calling for papers for its 53rd Annual Conference, to be held at the Palmerston North Convention Centre. Abstracts can be submitted here:

http://www.certain.com/system/profile/form/index.cfm?PKformID=0x12472562b72.

Submitters wishing to organise full sessions can indicate so on the on-line submission form, or can contact the organisers directly.

As in recent years, submitters are asked to submit a **1,000-word abstract** of their papers. Submissions will be quality-assured on the basis of the abstracts, which will also be used to ration the limited spaces for oral presentations. To be considered as quality assured, a full paper must be submitted by 14 June.

At the 2012 conference, there will be a limited number of sessions with discussants. Submitters wishing to have their papers included in a discussant session are required to be available to act as a discussant in another session if required, and to have their full paper submitted by 7 June.

The conference will also feature an **expanded poster session**. Submissions not judged suitable for oral presentations may be included in the poster session. Poster presentations may also be appropriate for work in progress and student research.

Important dates are:

Monday, 26 March 2012	Conference registration opens
Wednesday, 28 March 2012	Abstracts due
By Thursday, 19 April 2012	Notification of acceptances
Thursday, 10 May 2012	Early-bird registration closes
Thursday, 7 June 2012	Full papers due (discussed sessions and prize entries)
Thursday, 14 June 2012	Full papers due (all other quality-assured papers)

As always, papers on any topics in economics are welcome. Submissions from new and emerging researchers, government and private sector economists are especially encouraged.

Please address conference enquiries to:

Dr Seamus Hogan

NZAE Organising Committee
Department of Economics and Finance
University of Canterbury
Private Bag 4800
Christchurch, 8140

Phone: 64 3 364-2524 Fax: 64 3 352-2625

Email: seamus.hogan@canterbury.ac.nz

Lea Boodée

Conference Administrator onCue Conferences + Events 63 Trafalgar Street PO Box 1193

Nelson

Phone: 64 3 546-6330 Fax: 64 3 929 5512 Email: lea@on-cue.co.nz

NZEP has a keen interest in research on important issues relevant to New Zealand, Australia and the Asia-Pacific. The journal also publishes survey articles, book reviews and welcomes articles that explore important policy initiatives affecting the region and the implications of those policies. Authors are invited to submit their manuscripts to NZEP online (http://www.tandf.co.uk/journals/rnzp).

Currently, there are firm plans to publish three guest-edited special issues. These are on Quality of Life (guest edited by Gail Pacheco, Stephanié Rossouw and Don Webber), New Zealand's Macroeconomic Imbalances (guest edited by Viv Hall, John Janssen and Christie Smith) and Innovation in Teaching Undergraduate Economics (guest edited by David Colander, Michael Cameron and Mary Hedges). NZEP remains happy to consider further proposals from prospective guest-editors for special issues on specific issues and areas of research that are of interest to the NZEP readership.

Mark Holmes, Editor-in-Chief.

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Applications are now being sought for the **tenth A R Bergstrom Prize in Econometrics**.

The objective of the Prize is to reward the achievement of excellence in econometrics, as evidenced by a research paper in any area of econometrics. The Prize is open to New Zealand citizens or permanent residents of New Zealand who, on the closing date of applications, have current or recent (i.e. within two years) student status for a higher degree. It is intended that the awardee will utilise the proceeds to assist in financing further study or research in econometrics in New Zealand or overseas.

The Prize can be awarded once every two years, with its value currently being \$2000. The selection committee will consist of Professors P C B Phillips, V B Hall and their nominees.

Applications/nominations must include:

- a formal letter of application and, in the case of students, a letter of nomination by their research adviser or chairperson
- a research paper written by a single author, reporting original research in any area of econometrics
- · a CV and relevant academic transcripts

Applications should be emailed or posted

by 24 August 2012, to:

Professor V B Hall School of Economics and Finance Victoria University of Wellington P O Box 600 Wellington NEW ZEALAND

Email: viv.hall@vuw.ac.nz

The Prize is supported by funds generously provided by the following sponsors:

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ABOUT N7AF

The New Zealand Association of Economists aims to promote research, collaboration and discussion among professional economists in New Zealand. Membership is open to those with a background or interest in economics or commerce or business or management, and who share the objectives of the Association. Members automatically receive copies of New Zealand Economic Papers, Association newsletters, as well as benefiting from discounted fees for Association events such as conferences.

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The NZAE web-site address is: http://nzae.org.nz/ (list your job vacancies for economists here).

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Full Member: \$120 | Graduate Student: \$60 (first year only) If you would like more information about the NZAE, or would like to apply for membership, please contact:

Bruce McKevitt - Secretary-Manager,
New Zealand Association of Economists
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