MOTU ECONOMIC AND PUBLIC POLICY RESEARCH AND MOTU RESEARCH AND EDUCATION FOUNDATION

Motu

Annual Report July 2013 – June 2014



PRODUCING HIGH-QUALITY RESEARCH PROMOTING REASONED DEBATE DISSEMINATING TOPICAL ECONOMIC AND PUBLIC POLICY RESEARCH

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MOTU ECONOMIC AND PUBLIC POLICY RESEARCH AND MOTU RESEARCH AND EDUCATION FOUNDATION



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From the Director

Motu Economic and Public Policy Research Trust was established in 2000 to promote high-quality research, broad dissemination of research results, and building of New Zealand's capability for economic analysis applied to public policy. Motu is independent and has a reputation for world-class research that is not compromised by any ideology or political position. Motu is funded through research grants, sponsorship for our Public Policy Seminar Series, and philanthropic support through the Motu Research and Education Foundation.

I became Motu Director and Senior Fellow in May of 2013. My experience since then has confirmed the reaons why I chose to come. Motu offers a distinctive blend of world-class research, policy analysis, mentoring and capacity building. I am very proud of the strength of Motu's reputation, and the consensus that Motu plays a uniquely important role in supporting good public policy in New Zealand.

Public policy in a democracy is built on a complex base of political forces, judgment and ideology. But I believe firmly that understanding the facts and analysing the economic forces at work can make a difference in ensuring that policy will work for the long-run wellbeing of New Zealand. And economic analysis of specific, immediate policy issues is going to be much more effective if it is built on a base of research over a number of years that elucidates the overall structure and functioning of the relevant parts of the socio-economic system in New Zealand. Economists and other social scientists in universities are often focused on relatively general, abstract research, rather than research focused specifically on understanding New Zealand. Thus Motu fills a vital and distinctive niche lying between the academic researchers and the policy consultants/advisers, by undertaking ongoing, systematic research on New Zealand.

We at Motu believe that dissemination and capacity building should go hand-in-hand with undertaking the best research. Our Public Policy Seminars and mentorship and internship programmes are described later in this Report. We also try to incorporate capacity building directly into our research projects using conferences, workshops and dialogue groups.

Motu's unique place in the New Zealand research ecosystem is demonstrated by our role in the successful proposal to establish a new Centre of Research Excellence ("CoRE") Te Pūnaha Matatini, led by the University of Auckland. The CoRE programme, funded by the Tertiary Education System, is highly competitive. In 2014, six proposals were accepted for funding out of approximately 30 submitted. Te Pūnaha Matatini will study methods for the analysis of complex systems and networks, and apply those methods to ecological and economic/social systems. Motu researchers form the core of the Economics and Social Systems Research Theme, and I am the Theme Leader. This represents the only significant economic or social science research theme in any of the CoREs. Our research will map how individuals and firms in New Zealand participate in local, regional and global innovation networks, and the effect that their participation in such networks has on their economic performance.

In 2013/14, Motu researchers undertook important research in environment, macroeconomics and economic growth, labour economics, and productivity analysis. Highlights of this work are summarised in this Report.

Our financial performance in 2013/14 showed a significant improvement over the difficult year of 2012/13. We are now operating on a sustainable financial basis, and expect to continue to grow our research activity and revenue at a steady pace. In the coming year, we will be seeking new funding sources to allow us to establish a new research programme in agricultural economics, and to strengthen our efforts to build economic capability and economic understanding in New Zealand. In connection with these efforts, we will be launching a newly enhanced website early in 2015.

I encourage you to browse this Report for a snapshot of our people and programmes. If you would like further information about anything we do, please email me at adam.jaffe@motu.org.nz.

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Adam B. Jaffe Director and Senior Fellow

From the Board Chair

Motu is a small but very special and very important organisation within New Zealand's research system. Our research is consistently of a very high international standard and is unique in its relevance to important long-term economic policy choices facing New Zealand in areas such as infrastructure, climate change, productivity, longevity and the performance of firms and cities.

Motu continues its unrelenting commitment to high-quality research, and this is a tribute to the vision of the founding Senior Fellows Suzi Kerr and Dave Maré and all the Senior Fellows who work, and have worked, at Motu. Also impressive is the commitment to building research and research-related capability in New Zealand through the employment of research analysts and interns – all of whom are very impressive and talented young people – and the proactive undertaking to disseminate their research widely and freely through seminars and publications.

High-quality, research-based public policy is crucial to achieving the government's stated goals of improving economic, social and environmental outcomes for all New Zealanders. There is considerable potential for the public sector to work more effectively with research organisations such as Motu and its extensive network of New Zealand and international researchers to ensure that the issues that the country will inevitably face over the next few decades are being progressively informed by a relevant research programme. Building such relationships is also vital to increasing the public sector's capability to effectively utilise insights from research and incorporate research into policy making in a consistent and coherent way.

What a difference a year makes! A raft of new research contracts have been signed and the turnaround in finances has been spectacular. A lot of credit has to go to the Director for this, ably supported by the Senior Fellows and Fellows.

I would like to thank the Trust Board and the Foundation Board for their commitment and hard work. All give their time willingly and freely.

John Hay

John Hay Chair of the Trust Board



Motu works to build economic and public policy research capacity in New Zealand and prioritises disseminating our research to ensure that our findings are freely available. We invest in young researchers and help to develop collaborative research networks and relationships with universities within New Zealand and overseas. These activities increase Motu's profile and help to build trust in our research, independence, and charitable status.

About Motu

Motu Economic and Public Policy Research Trust has six core purposes:

- 1. To carry out empirical research of high quality, suitable for acceptance in reputable journals;
- 2. To make existing knowledge more accessible for policy debates in New Zealand;
- 3. To disseminate our work and our knowledge;
- 4. To build New Zealand's capability to carry out empirical and theoretical research;
- 5. To maintain close links with international experts working in our fields; and
- 6. To facilitate the visits of relevant international experts to New Zealand.

Research and Research Dissemination

Motu's 2013/14 research is summarised later in this Report. Motu is committed to making the results of this research on key issues facing New Zealand accessible to public and private decision-makers and the general public. Indeed, Motu does not take on any research project unless the project sponsor agrees in advance that whatever the results turn out to be, they will be published. Our two publication series, the Motu Working Paper Series and Motu Notes, are both available free from our website, www.motu.org.nz. Motu Working Papers are technical papers intended for working economists and other experts, while Motu Notes are less technical and designed to appeal to a general or policy audience. Motu also maintains an online archive of our public datasets.

Motu releases an electronic newsletter, the Motu Research Update, approximately six times a year. Its articles are short, topical, and designed to be accessible to a wide audience. Subscription to this series is also free on our website.

Public Events

Motu's Public Policy Seminar Series, which saw seminars held in both Wellington and Auckland, features internationally recognised and local speakers. It aims to encourage informed debate on important economic and public policy issues.

In April 2014, Nick Hanley gave a public policy seminar on measuring sustainable development and Professor Frank Convery of University College Dublin spoke on whether small countries can make a difference in climate policy. During 2014 Motu also participated in a series of panel seminars, "The Ballot Box", run through the University of Auckland. The Ballot Box aimed to deepen understanding of major issues facing New Zealand before the general election. Adam Jaffe served as moderator on the panels. Arthur Grimes spoke at a June panel on housing affordability, Motu affiliate Sholeh Maani spoke at a June panel on minimum and living wages, and Suzi Kerr spoke at an August panel on environmentalism.

Investing in Young Researchers

A key way in which Motu builds research capability in New Zealand is through its commitment to employing and training. Internships assist young researchers to build a firm skills base, strengthening New Zealand's research networks and empirical research capability. From December 2013 until February 2014 Motu hosted five interns: Campbell Will, working with Suzi Kerr on her project "Understanding the relationship between household characteristics and GHG emissions from consumption"; Jason Mika, working with Arthur Grimes on potential research use of the Poutama Trust database; Fraser McKay, working with Arthur Grimes on the factors that affect measured wellbeing in Māori and Pākehā communities; Nathan Chappell, working with Isabelle Sin on a project on how social networks affect labour market outcomes, and in particular the effects of iwi-ties for Māori; and Victoria Larsen, who worked with Adam Jaffe to examine how Marsden grants affect the research productivity of grantees. The interns wound up their time at Motu in February, and their contributions are appreciated. Nathan will be joining Motu as a research analyst in 2015.

Motu research analysts are typically outstanding graduates with curious minds, and Motu offers them

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a challenging environment where their skills are extended. Motu welcomed three new research analysts in 2014: Anna Robinson and Judd Ormsby (University of Otago) and Matt Thirkettle (University of Canterbury). Anna is currently working with Arthur Grimes on the Resilient Urban Futures project and Judd is working with Suzi Kerr, Catherine Leining and Corey Allan on the Low Emissions Future project. Matt, who worked with Adam Jaffe on firm productivity in New Zealand, has left Motu to pursue a PhD at Cornell University.

Teaching

Motu's senior fellows build research capability through their work with universities. This includes research collaboration, teaching, and supervising thesis students. Dave Maré is an adjunct professor of Economics at Waikato, where he assisted with the teaching of an Urban and Regional Economics course and is helping to supervise Michael Krausse, a PhD student looking at the impact of borders on economic activity. Dave is also co-supervising Michael Fletcher's PhD study at the Auckland University of Technology, on the New Zealand child support system.

Arthur Grimes is an adjunct professor of Economics at the University of Auckland. He teaches half of a third-year Applied Econometrics course and supervises graduate students. Arthur is currently supervising three University of Auckland PhD students and three Honours/Masters students and is cosupervising a PhD student at each of University of Waikato and University of Otago. In 2013 Arthur was awarded a Visiting Professorship by the NZ–UK Link Foundation, an organisation established to enhance links between New Zealand and the UK by facilitating academic and educational exchanges. Arthur spent three months at the School of Advanced Studies in the University of London, delivering a public lecture series on central banking.

Following his co-supervision of her PhD at Waikato University, Richard Fabling has an ongoing collaborative role with Lynda Sanderson, funded by the Treasury. Together with Steve Stillman, he is supervising Michelle Poland's (Worksafe NZ) PhD on the relationship between work practices, accident rates, and firm performance. Richard also works closely with Statistics New Zealand staff to improve their understanding of micro economic uses of their data.

Motu People

Senior Fellows



Adam Jaffe Director and Senior Fellow

Adam B. Jaffe joined Motu as Director in May 2013, coming from Brandeis University where he was the Fred C. Hecht Professor of Economics. He has been Chair of Economics and Dean of the Faculty of Arts and Sciences at Brandeis, Associate Professor of Economics at Harvard University, and Senior Staff Economist at the President's Council of Economic Advisers. Adam's research focuses on technological innovation and technology diffusion, particularly as it affects environmental and energy technologies. In addition to his scholarly activities, Adam is active in public policy formulation and debate.



Arthur Grimes Senior Fellow

Arthur has a BSocSc (Hons) from University of Waikato, and completed his PhD in Economics at the London School of Economics in 1987. Before joining Motu, Arthur was Director of the Institute of Policy Studies, Victoria University of Wellington, and had prominent roles at the Reserve Bank of New Zealand and National Bank of New Zealand. He has published papers on macroeconomics, banking and finance, housing, and infrastructure topics in international academic journals, and has authored or edited five books. In 2005, Arthur was awarded the prestigious NZIER Economics Award. He is currently Chair of the Hugo Group, Member of the Financial Markets Authority, Adjunct Professor of Economics at the University of Auckland and Honorary Professor of Economics at the University of Waikato.



Suzi Kerr Senior Fellow

Suzi founded Motu with Dave Maré in 1998 and was Director as well as Senior Fellow until 2009. She graduated from Harvard University in 1995 with a PhD in Economics. She has also worked at the University of Maryland at College Park, Resources for the Future (USA), and the Joint Center for the Science and Policy of Global Change at MIT, and more recently was a Visiting Professor at Stanford University for the 2009/10 year and at the University of the Andes in Bogotá, Colombia in early 2014. Her current research work focuses on climate change. She empirically and theoretically investigates domestic and international climate change policy with special emphasis on land use in both the tropics and New Zealand and on emissions pricing. She leads work on climate change impacts and adaptation in New Zealand. She has also worked extensively on economic instruments for managing water quality, fisheries and air quality.



David C. Maré Senior Fellow

Dave has been a Senior Fellow at Motu since 2000 and an Adjunct Professor of Economics at the University of Waikato since 2009. Before founding Motu with Suzi Kerr, he was a researcher at the New Zealand Department of Labour. Dave gained his PhD in Economics at Harvard University in 1995, specialising in labour economics and urban economics. His current research interests include the economics of immigration, the economic performance of cities and regions, and patterns of labour market adjustment – for individuals and in aggregate.



Fellows



Catherine Leining Policy Fellow

workers and firms.

Richard Fabling Senior Fellow

Catherine Leining joined Motu as a Policy Fellow in November 2013. She has over 20 years of international experience in climate change and environmental policy. Her work at Motu focuses on shaping a low-emission future for New Zealand and the evolution of emissions trading in New Zealand and internationally. In New Zealand, she has held policy positions at the Ministry for the Environment, Ministry of Foreign Affairs and Trade, Wellington City Council and New Zealand Transport Agency.

Richard joined Motu as a Senior Fellow in October 2011, having previously held senior research positions at the Reserve Bank of New Zealand and the Ministry of Economic Development. He holds a doctorate from the University of Waikato in Applied Mathematics. Richard's current research focuses on the firm-level determinants of productivity growth, the behaviour and performance of internationally engaged businesses, and the effect of the Global Financial Crisis on



Trinh Le Fellow

Before joining Motu in 2014, Trinh was a Research Fellow at Melbourne Institute of Applied Economic and Social Research (University of Melbourne), and a consultant to the World Bank. Previously she worked at New Zealand Institute of Economic Research (NZIER) and the New Zealand Treasury. She holds a PhD from the University of Canterbury. Trinh is interested in applied microeconomics, particularly in the areas of labour markets, education and development. At Motu, Trinh is currently working on firm productivity in New Zealand.



Isabelle Sin Fellow

Isabelle returned to Motu as a Fellow in 2012 after completing her PhD at Stanford University in 2011. Her research areas are applied microeconomics and economic history, particularly in the fields of the economics of knowledge and its international and domestic diffusion. In her dissertation she studied flows of book translations between countries to gain insight into the international flow of ideas codified in books. Isabelle graduated from the University of Canterbury in 2002 with an honours degree in economics. She then worked at the Reserve Bank of New Zealand and Motu before leaving New Zealand to pursue her doctoral studies.



Levente Tímár Fellow

Levi has been at Motu since 2009. He fills a joint role with GNS Science, established to strengthen integrated environmental economic research across the two organisations. Levi earned a PhD in economics from North Carolina State University in 2008, where his doctoral dissertation focused on human-mediated aquatic invasions. He was interested in modelling behavioural responses to policy changes, and the consequent effect on the spread of invasive species in freshwater environments. His current research interests revolve around rural land use and its role in climate change mitigation, and quantifying the value of natural hazard risk mitigation.

Board of Trustees



Dr John Hay Chair Dr John Hay & Associates John became board chair in November 2011.



Stephen Goldson AgResearch Principal Scientist; Strategy Advisor to the Office of the Prime Minister's Science Advisory Committee



Horiana Irwin-Easthope Kahui Legal Solicitor



Rob Fenwick Living Earth Co-Founder



Neil Green Senate SHJ Chief Executive Officer



Adam Jaffe Motu Director and Senior Fellow



Peter O'Shea Barnados General Manager, Corporate Services



Bruce Wills Federated Farmers President



Deborah Cobb-Clark Melbourne Institute of Applied Economic and Social Research Director and Ronald Henderson Professor

Victoria University of Wellington

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Affiliates





Viv Hall Victoria University of Wellington Professor and Macarthy Chair of Economics

Dean Hyslop Victoria University of Wellington Professor of Econometrics

Sholeh Maani University of Auckland Professor of Economics, Graduate School of Management

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Affiliates (continued)



Tim Maloney University of Auckland Associate Professor of Economics



James Sanchirico

Resources for the Future Professor in the Department of Environmental Science and Policy; University Fellow at Resources for the Future

Lynda Sanderson New Zealand Treasury Senior Analyst

Grant Scobie



John McDermott Reserve Bank of New Zealand Head of Economics

Philip McCann

University of Groningen

Professor of Economics



Richard Newell *Duke University* Gendell Associate Professor of Energy and Environmental Economics



Steven Stillman University of Otago Professor of Economics

Adolf Stroombergen

Chief Economist

Infometrics

New Zealand Treasury

Principal Advisor in Policy

Coordination and Development



Les Oxley *University of Canterbury* Professor of Economics and Finance



Jacques Poot University of Waikato Professor of Population Economics

Robert MacCulloch *University of Auckland* Professor and Matthew S Abel Chair in Macroeconomics



Malathi Velamuri *Victoria University of Wellington* Lecturer in the School of Economics and Finance

Research Analysts

In 2013/14, Motu's research analysts were Corey Allan, Sean Hyland, Judd Ormsby, Anna Robinson and Matt Thirkettle.

Research

Motu's success as an organisation is built on our ability to produce high-quality, topical economic and public policy research. We have a strong desire to prove the academic quality of our work through publication, including in international journals. The audience we most wish to impress are top international academics and New Zealand and international policy makers and private sector leaders who are keen to understand and apply our results. We involve end-users at all stages of the research process to ensure our research is relevant and valuable.



Climate and Environment

Motu's environment team is now primarily working on climate change issues; during 2013/2014 we produced a number of presentations and papers in this field.

Climate Change

Two main climate change-related programmes form the focus of Motu's work: 'Shaping New Zealand's Low Emission Future', largely funded by the Aotearoa Foundation with co-funding from Meridian Energy, Z Energy and the Ministry for the Environment, and 'Climate Change Impacts and Implications' funded by the Ministry of Business, Innovation and Employment (MBIE) through a NIWA subcontract.

'Shaping New Zealand's Low Emission Future' is an extensive multi-disciplinary programme, running from 2013 to 2015. It involves significant research, stakeholder dialogue, and international exchanges. The intention of the programme is to develop new ideas to achieve greater momentum in emission-reduction opportunities, policies and actions. Applied research is underway on the history and evaluation of the NZ ETS and analytical work on domestic carbon market dynamics in relation to this research was presented at the NZAE conference in July 2014.

The Low-Emissions Future Dialogue brings together stakeholders and technical experts from a range of organisations to discuss the many possible pathways toward New Zealand's global low-emission future. The group's work has a technical, not a political, focus. Motu staff prepared a substantive background paper on New Zealand's current climate change landscape, which will be issued as a Motu Note, as well as a 'mapping' of complementary climate change initiatives in New Zealand. Motu is collaborating with the Sustainable Business Council and Dr Taciano Milfont of Victoria University of Wellington on a Horizon Research survey on climate change beliefs and individual behavioural responses in New Zealand. The survey results will be analysed in papers by Motu staff and Taciano Milfont, and will help to inform discussions by Motu's Low-Emissions Future Dialogue. The *Agricultural Emissions* blog continues and recently a new blog has been established, *New Zealand's Low-Emission Future*. This blog is evolving as a collaborative effort with the Climate Change Research Institute at Victoria University of Wellington.

Several opportunities for collaboration with other researchers in New Zealand and overseas have been identified and are building on earlier joint work, particularly on emission offsets; linking and investment issues are two key areas of interest. Early work in these areas has focused particularly on linking issues and developing countries; this work has been supported by Suzi Kerr's posting in Colombia from January through June 2014.

A paper on rural land value changes over time and agricultural profitability is currently being completed. This work has been extended to explore the role of climate in determining rural land values. Motu is working with NIWA and Crop and Food to develop a simulation model of responses to climate change.

Adam Jaffe and Suzi Kerr have completed a review of The Climate Casino by Yale Economist William Nordhaus for the *Journal of Economic Literature (JEL)*. The *JEL* is published by the American Economic Association, and is widely read.

Our key water-quality related work in 2013–14 was the completion of modelling, with NIWA, of historical and projected nutrient leaching for a major Parliamentary Commissioner for the Environment report. As background to this work we completed an upgrade of our LURNZ land use model, ran workshops on water quality and land use modelling and estimated distributions of nutrient and greenhouse gas efficiency across actual New Zealand farms. Our work on the Nutrient Trading and Water Quality programme is now largely complete, however, papers are forthcoming on the Lake Taupo trading system and on the impacts of different allowance allocation systems when farmers are heterogeneous.

Publications

- Allan, Corey, Adam B. Jaffe and Isabelle Sin. 2014. "Diffusion of Green Technology: A Survey." International Review of Environmental and Resource Economics 7:1, 1–33. Available online athttp://dx.doi. org/10.1561/101.00000055. Also published as Motu Working Paper 14-04. Wellington: Motu Economic and Public Policy Research.
- Anastasiadis, Simon, Suzi Kerr, Marie-Laure Nauleau, Tim Cox and Kit Rutherford. 2014. "Does Complex Hydrology Require Complex Water Quality Policy?" *Australian Journal of Agricultural and Resource Economics* 58:1, 130–45. Available online at http://onlinelibrary.wiley.com/doi/10.1111/1467-8489.12024/abstract.
- Anastasiadis, Simon, and Suzi Kerr. 2013. "Land Use and Farming Intensity: For 1996, 2008 and 2020." *Report for the Parliamentary Commissioner for the Environment*. Welington: Motu Economic and Public Policy Research.
- Anastasiadis, Simon; Suzi Kerr; Adam Daigneault; Graeme J. Doole; Suzie Greenhalgh; Oscar Montes de Oca Munguia; Daniel Rutledge and James Turner. 2013. "Understanding the Practice of Land Use Modelling." Wellington: Motu Economic and Public Policy Research.
- Anastasiadis, Simon, Suzi Kerr, Chris Arbuckle, Sandy Elliott, John Hadfield, Blair Keenan, Richard McDowell, Trevor Webb and Roger Williams. 2013. "Understanding the Practice of Water Quality Modelling." Wellington: Motu Economic and Public Policy Research.
- Anastasiadis, Simon, and Suzi Kerr. 2013. "Mitigation and Heterogeneity in Management Practices on New Zealand Dairy Farms." *Motu Working Paper 13-11*. Wellington: Motu Economic and Public Policy Research.
- Funk, Jason, Chris Field, Adam Daigneault and Suzi Kerr. 2014. "Modeling the impact of carbon farming on land use in a New Zealand landscape." *Environmental Science and Policy* 37, 1–10.
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- Jaffe, Adam B., and Suzi Kerr. Forthcoming. "The Science, Economics and Politics of Global Climate Change," review of *The Climate Casino* by W. Nordhaus, *Journal of Economic Literature*.
- Keller, E.D., Baisden, W.T.; Timar, L.; Mullan, B. and Clark A. 2014. "Grassland Production under Global Change Scenarios for New Zealand Pastoral Agriculture." *Geoscientific Model Development Discussions*, 7(3): 3307–65.
- OECD. 2013. *Water Security for Better Lives*, OECD Studies on Water, Paris: OECD Publishing. Contributor to chapters 3 and 4. Available online at http://dx.doi.org/10.1787/9789264202405.
- Pemberton, Josh, and Suzi Kerr. 2013. "Value and Natural Capital: Examining the Economist's Perspective." Motu Note #14. Wellington: Motu Economic and Public Policy Research.
- Romanos, Carl, Suzi Kerr and Campbell Will. 2014. "Greenhouse Gas Emissions in New Zealand: A Preliminary Consumption-Based Analysis." *Motu Working Paper* 14-05. Wellington: Motu Economic and Public Policy Research.
- Timar, Levente, and Suzi Kerr. 2014. "Land-use Intensity and Greenhouse Gas Emissions in the LURNZ Model." *Motu Working Paper* 14-03. Wellington: Motu Economic and Public Policy Research.
- van Benthem, Arthur, and Suzi Kerr. 2013. "Scale and Transfers in International Emissions Offset Programs." Journal of Public Economics 107, 31–46.

Presentations

- Allan, Corey. 2014. "Tracking Progress toward a Low-Emission Future." Motu Low-Emission Future Dialogue, Wellington, May 8.
- Daigneault, Adam, and Suzi Kerr. 2013. "What's the Use? How to Get More From Land-Use and Economic Models." Landcare Research Link Seminar, Wellington, October.
- Kerr, Suzi. 2013. "What We Do and Don't Know about Tackling New Zealand's Agricultural Emissions." Institute of Governance and Policy Studies Roundtable 'Agriculture Revisited', Victoria University of Wellington, December 5.
- Kerr, Suzi. 2013. "ETS for Climate Scientists." New Zealand Climate Change Centre, NIWA, Wellington, December 3.
- Kerr, Suzi. 2013. "Challenges Going Forward: Linking (and Agricultural Emissions)." Institute of Policy and Management, Chinese Academy of Sciences, Beijing, October.
- Kerr, Suzi. 2013. "Policy Instability and Investment Certainty under Emissions Trading." Institute of Policy and Management, Chinese Academy of Sciences, Beijing, October.
- Kerr, Suzi. 2013. "Allocation of Allowances in Greenhouse Gas Markets: Lessons from New Zealand." China– Australia Carbon Market Design Expert Workshop: Allocation Approaches and Lessons Learnt So Far, hosted by the Centre for Energy and Environmental Markets, University of New South Wales, and Institute of Energy, Environment and Economy, Tsinghua University. Beijing, October 12.
- Kerr, Suzi. 2013. "Making Emissions Trading Effective: Lessons from New Zealand." Symposium on Theoretical Advances and Empirical Lessons of Emissions Trading Schemes, Institute of Policy Management, Chinese Academy of Sciences, and Fraunhofer Institute for Systems and Innovation Research, Beijing, October 10–11.
- Kerr, Suzi. 2014. "Raising Agricultural Productivity and Land Values through Greenhouse Gas Policy: Lessons for Colombia from New Zealand." CEDE Seminar, Universidad de los Andes, May 27.
- Leining, Catherine. 2014. "Today's Climate Change Landscape." Motu Low-Emission Future Dialogue, Wellington, May 8.
- Kerr, Suzi and Judd Ormsby. 2014. "Thinking Differently about New Zealand's Climate Change Solutions." Motu Low-Emission Future Dialogue, Wellington, May 8.
- Timar, L. 2014. "Modelling the Free Allocation of Nutrient Discharge Allowances among Heterogeneous Farmers in the Lake Rotorua Catchment." Australian Agricultural and Resource Economics Society (AARES) conference. Port Macquarie, February 6.

Labour and Population Economics

Motu's Labour and Population Economics work has this year has looked at the role of migration and skills on innovation in New Zealand firms, Māori mobility, and educational outcomes.



Migration

Dave Maré is analysing patterns of mobility across New Zealand regions, as an input into the modelling of multi-regional demographic and economic change. This work contributes to Ngā Tangata Oho Mairangi, a two-year MBIE-funded programme of work lead by the University of Waikato's National Institute of Demographic and Economic Analysis (NIDEA) and Massey University.

Dave has been working with Keith McLeod (MBIE) and Richard Fabling to estimate the impact of firms' own workforce composition on their innovation outcomes – focusing on employees' skill and recent migration history. This extends earlier work that examined the impact of the composition of the local population.

Isabelle Sin and Steve Stillman have been working on a project investigating the geographical mobility of Māori in New Zealand. In particular, they are interested in how Māori ties to the traditional lands of their iwi and their social ties to other iwi members can be used to study how social networks affect location choice and labour market outcomes. They are nearing completion on the first of two related papers, which updates previous work describing the geographical mobility and responsiveness to labour market shocks of Māori in New Zealand.

Education and Skills

With support from MBIE, Isabelle Sin and Dave Maré recently completed a scoping study funded by the Tertiary Education Commission (TEC) that uses Statistics New Zealand's Integrated Data Infrastructure (IDI) to investigate questions in tertiary education

Isabelle Sin and Dave Maré are continuing work funded by the Tertiary Education Commission (TEC) that uses Statistics New Zealand's Integrated Data Infrastructure (IDI) to investigate questions in tertiary education. They are nearing completion on the first of two phases of the project, a study that describes the pathways students choose after they complete compulsory education. Isabelle and Dave are working with TEC to define more specific questions that will be addressed in the second phase of the project and to explore further projects.

Presentations

Sin, Isabelle. 2013. "Māori Mobility, Networks, and Economic Development." Presentation to the Ministry of Business, Innovation and Economics, Wellington, November.



Economic Geography

Motu's economic geography programme has this year continued its work in infrastructure planning and urban development, and has considered the effects of the Christchurch earthquakes on property and labour outcomes.

Infrastructure and How Infrastructure Links Shape Urban Development in New Zealand

Arthur Grimes is leading this programme on the impacts of infrastructure. In early 2014 Arthur's chapter, "Regional Growth and Infrastructure", was published in the *Handbook of Regional Science*, by Springer–Verlag.

Arthur Grimes continues to lead one strand of the Resilient Urban Futures programme, which is led by University of Otago with a consortium of research bodies and funded by the Ministry of Business Innovation and Employment (MBIE). Research is being carried out to determine the role of infrastructure links in the growth of cities and towns in New Zealand. Subsequent research in the programme will examine the effects of fast broadband provision on firm location and productivity, and will analyse optimal infrastructure planning regimes for the northern part of the North Island. In addition to this, University of Auckland PhD student Eilya Torshizian is being supervised by Arthur within this programme; his work looks at the relationship between house crowding and density and residential satisfaction.

Economic Responses to the Canterbury Earthquake: Evidence from Labour and Property Markets

Two projects examining the economic impacts of the Christchurch earthquakes have been funded by MBIE through the natural hazards platform. The first project uses property data to examine how the earthquakes have affected the pricing of disaster risk in other parts of New Zealand post-earthquakes. The second project uses unit record administrative data to examine business and labour market outcomes in Christchurch following the earthquakes. These projects are being conducted by Levente Timar, Richard Fabling and Arthur Grimes

Publications

Grimes, Arthur, and Nicholas Tarrant. 2013. "A New Zealand Urban Population Database." *Motu Working Paper* 13-07. Wellington: Motu Economic and Public Policy Research.

Grimes, Arthur. 2014. "Infrastructure and Regional Growth." In *Handbook of Regional Science*, edited by M. Fischer and P. Nijkamp, chapter 28. Berlin: Springer Verlag.

Presentations

- Grimes, Arthur, Eyal Apatov, Larissa Lutchman and Anna Robinson. 2014. "Infrastructure's Long-Lived Impact on Urban Development: Theory and Empirics." Paper presented to New Zealand Association of Economists conference, Auckland, July.
- Torshizian, Eilya and Arthur Grimes. 2014. "Residential Satisfaction, Crowding and Density: Evidence over Different Geographic Scales in Auckland." Paper presented to New Zealand Association of Economists conference, Auckland, July.

Housing

Motu's 2013/2014 work on housing in New Zealand furthered research in the areas of health, rural communities and the impact of the global financial crisis on housing.



Arthur Grimes continued the collaborative research effort to evaluate the effectiveness of the government's New Zealand Insulation Fund (NZIF). This work considered improvements in health outcomes and the reduction in household energy usage. In relation to this work he is co-supervising PhD student Nick Preval at Otago University to assess the health outcomes from the programme over a longer period.

Arthur has led two further housing-related programmes, working with Motu RA Sean Hyland. The first is a programme funded by the Kelliher Foundation, "How do Commodity Prices Affect Rural Community Outcomes?" which was published as Motu Working Paper 13-10.

The second housing market programme developed the work of the New Zealand Regional Housing Model, which was funded by the Department of Building and Housing. The research was extended to examine the effects of the Global Financial Crisis on housing outcomes for New Zealanders. This research was released as Motu Working Paper 13-12 and a paper applying the model has been accepted for publication in *Contemporary Economic Policy*.

Publications

- Bergstrom, Katy, Arthur Grimes and Steve Stillman. 2013. "Does Selling State Silver Generate Private Gold? Neighbourhood Impacts of State Housing Sales." *Urban Studies*, 51(6), 1257-1273.
- Grimes, Arthur, and Sean Hyland. 2013. "Passing the Buck: Impacts of Commodity Price Shocks on Local Outcomes." *Motu Working Paper* 13-10. Wellington: Motu Economic and Public Policy Research.
- Grimes, Arthur, and Sean Hyland. 2013. "Housing Market Dynamics and the GFC: The Complex Dynamics of a Credit Shock." Forthcoming in *Contemporary Economic Policy* and published as *Motu Working Paper* 13-12. Wellington: Motu Economic and Pubic Policy Research.
- Roskruge, Matthew, Arthur Grimes, Philip McCann and Jacques Poot. 2013. "Homeownership, Social Capital and Satisfaction with Local Government." *Urban Studies* 50(12), 2517–34.



Productivity and Innovation

Motu's work this year in the areas of productivity and innovation has considered the role migrants and research and development play in New Zealand firms' innovation.

International Engagement and Firm Performance

Isabelle Sin, in collaboration with Dave Maré, Lynda Sanderson, Adam Jaffe and Richard Fabling, has nearly completed an investigation of the relationships between employee characteristics and the international engagement of New Zealand firms, and the relationship between the international engagement of firms and their levels of innovation. The investigation uses Statistics New Zealand's Integrated Data Infrastructure.

Earnings in Foreign-owned Firms

Dave Maré is working with Lynda Sanderson (Treasury) and Richard Fabling to look at the magnitude and causes of higher wage rates paid by foreign-owned firms, and whether employees in such firms maintain higher earnings when they move to other firms. This work is being carried out on contract to the Treasury.

Productivity Research Using the Longitudinal Business Data

Adam Jaffe, Dave Maré, Richard Fabling, and Trinh Le have launched the Research Partnership for the Longitudinal Business Database, funded by the Productivity Commission, the Treasury and the Ministry of Business, Innovation and Employment (MBIE), through the "Productivity Hub." This two-year programme is devoted to research on productivity issues in New Zealand, using Statistics New Zealand's Longitudinal Business Database (LBD). Projects under this programme include a survey of how different econometric methods affect measurements of productivity, an overview of research and development and innovation statistics available in the LBD, and an analysis of how different government research and development support programmes affect innovation at the firm level.

Science and Innovation Policy

Adam Jaffe has reported to MBIE, GNS Science, Environmental Science and Research (ESR), and BRANZ on methodologies for evaluating and assessing the social and economic impact of the research they do. Each of these entities is now considering how to use the frameworks for further analysis.

Publications

Allan, Corey, Adam Jaffe, and Isabelle Sin. 2014. "Diffusion of Green Technology." *International Review of Environmental and Resource Economics*, 7:1, pp. 1–33. Available online at http://dx.doi.org/10.1561/101.00000055.

Fabling, Richard, and Lynda Sanderson. 2014. "Foreign Acquisition and the Performance of New Zealand Firms." *New Zealand Economic Papers*, 48(1), 1–20.

Maré, David C., and Richard Fabling. 2013. "Productivity and Local Workforce Composition." In *Geography, Institutions and Regional Economic Performance*, edited by R. Crescenzi and M. Percoco. Berlin and Heidelberg: Springer–Verlag.

Maré, David C., Richard Fabling, and Steven Stillman. 2013. "Innovation and the Local Workforce." *Papers in Regional Science* 93.1, 183–201. Available online at http://onlinelibrary.wiley.com/doi/10.1111/j.1435-5957.2012.00479.x/abstract.

- Jaffe, Adam B. 2013. "Science and Innovation Policy for Small Countries." Keynote address, Asia–Pacific Innovation Conference, National Taiwan University, December 7.
- Jaffe, Adam B. 2013. "Capitalizing on Science for Innovation: Policy Issues and Research Agenda." Keynote address, International Workshop on Science Sources of Innovation, National Institute of Science and Technology Policy, Tokyo, March 17.
- Jaffe, Adam B. 2013. "Science and Innovation Policy for New Zealand." Motu Public Policy Seminar, Motu Economic and Public Policy Research, Wellington, September 4.
- Jaffe, Adam B. 2013. "The Economics of Open Innovation." Open Access and Research Conference, Queensland University of Technology, Brisbane, November 1.
- Jaffe, Adam B. 2013. "An Economic Perspective on Science and Innovation Policy." Economic Analysis of Industry and Innovation Programs Design Workshop, Australian National University, Canberra, September 20.



Macroeconomics and Other Topics

Motu's programmes in macroeconomics, monetary economics and economic performance have included research in the areas of wellbeing and sustainability, the role of culture in economic value and banking systems since the global financial crisis.

Exchange Rates and Prices

Richard Fabling is working with Lynda Sanderson (Treasury) to better understand the relationship between exchange rate volatility and export performance.

Testing the Validity and Robustness of Wellbeing and Sustainability Measures

The Royal Society of New Zealand's Marsden Fund is funding Arthur Grimes' research programme on the validity and robustness of national measures of wellbeing and sustainability. Funding began in July 2013 and extends for three years. The programme is co-led by Les Oxley of the University of Waikato and Jamie Ataria (Lincoln University) and Robert MacCulloch (University of Auckland) are associate investigators. Work in the programme to date includes:

1. An analysis of how international migration flows relate to a range of national wellbeing and sustainability measures, with Les Oxley and Nicholas Tarrant;

2. Examination of Māori versus Pākehā values and attitudes, with Robert MacCulloch, Motu Māori intern, Fraser McKay and University of Auckland PhD student (and Motu Māori intern), Rawinia Kamau;

3. An analysis of new sustainability measures for New Zealand, with Les Oxley and Mubashir Qasim, a PhD student at University of Waikato; and

4. Development of a new measure of material wellbeing across countries, with Sean Hyland.

Worker Flows and Employment Growth

Richard, together with Lynda Sanderson (Treasury), is contributing New Zealand results to two OECD-led cross country studies – one looking at the relationship between gross worker flows and net employment growth at the firm level, and the second looking at the relative contribution of different sorts of firms (e.g. small vs. large, new vs. old) to aggregate employment growth.

Central Banking

Arthur Grimes prepared and delivered a set of four public lectures on central banking topics in London (September – December 2013) during his time as the NZ–UK Link Foundation Visiting Professor at the University of London. The topics included: inflation targeting, exchange rate systems, macroprudential policies, and microprudential policies. They were delivered at the Bank of England, University College London, London School of Economics, and Institute of Advanced Legal Studies. The lectures received considerable media coverage in the UK and in the *Chicago Tribune* and have been released together as Motu Working Paper 14-02; the microprudential lecture appeared in the UK journal, *The Company Lawyer*. As a result of these lectures, Arthur was requested to deliver a seminar on "Central Banking after the GFC" to the All Party Parliamentary Group on Economics, Money & Banking, at the House of Commons (UK).

Value and Culture

Suzi Kerr, Arthur Grimes and Motu RA Corey Allan conducted an analysis of the ways in which cultural activities contribute to a broad concept of economic value. The research was funded by the Ministry for Culture and Heritage (MCH) and was released both as an MCH paper and as Motu Working Paper 13-09. It has been presented to a number of audiences in Wellington. Arthur provided a video presentation for an MCH symposium on the topic in June this year; the video is available at https://www.youtube.com/watch?v=Yy3EE9c_jZU.

Māori Firm Performance

Jason Mika, a Motu Māori intern, prepared the report "The Efficacy of Using the Poutama Trust Database for Research", under Arthur Grimes' supervision. The report is the first year's contribution to a three-year programme employing Māori interns to use the Poutama Trust's extensive database on Maori businesses. The research is designed to determine which types of assistance help lift Māori businesses performance. A second Māori intern will work on this project over the summer of 2014/15.

Publications

- Allan, Corey, Arthur Grimes and Suzi Kerr. 2013. "Value and Culture." *Motu Working Paper* 13-09. Wellington: Motu Economic and Public Policy Research.
- Di Tella, Rafael, and Robert MacCulloch. 2014. "Culture, Beliefs and Economic Performance." *Motu Working Paper 14-06*. Wellington: Motu Economic and Public Policy Research.
- Fabling, Richard, and Arthur Grimes. Forthcoming. "Over the Hedge: Do Exporters Practice Selective Hedging?" *Journal of Futures Markets*. Earlier version available as *Motu Working Paper* 14-01. Wellington: Motu Economic and Public Policy Research.
- Fabling, Richard, and Lynda Sanderson. Forthcoming. "Export Performance Invoice Currency, and Heterogeneous Exchange Rate Pass-Through," *The World Economy.*
- Fabling, Richard, Norman Gemmell, Richard Kneller and Lynda Sanderson. 2013. "Estimating Firm-Level Effective Tax Rates and the User Cost of Capital in New Zealand." *Motu Working Paper* 13-14. Wellington: Motu Economic and Public Policy Research.
- Grimes, Arthur. 2014. "Four Lectures on Central Banking." *Motu Working Paper* 14-02. Wellington: Motu Economic and Public Policy Research.
- Grimes, Arthur. 2014. "Responsibility and Accountability in the Financial Sector." Company Lawyer 35:2, 44-9
- Grimes, Arthur. 2013. "Monetary Policy and Economic Imbalances: An Ethnographic Examination of Central Bank Rituals." *Journal of Economic Surveys* 27:4, 634–640.
- Grimes, Arthur, Les Oxley and Nicholas Tarrant. 2014. "Does Money Buy Me Love? Testing Alternative Measures of National Wellbeing." In *Economics of Wellbeing*, Volume 5 of *Wellbeing: A Complete Reference Guide*, edited by D. McDaid and C. Cooper. London: Wiley. DOI: 10.1002/9781118539415.
- Grimes, Arthur, Sean Hyland and Gemma Wills. 2014. "A New Cross-Country Measure of Material Wellbeing." Paper presented to New Zealand Association of Economists conference, Auckland, July.
- Guyonne Kalb, Trinh Le and Felix Leung. 2014. "Outcomes for Teenage Mothers in the First Years after Birth." *Melbourne Institute Working Paper Series No. 06/14.* Melbourne Institute of Applied Economic and Social Research, The University of Melbourne.

Presentations

- Grimes, Arthur. 2014. "Investing in Auckland: Implications of Investing in Auckland's Infrastructure & Amenities." Presentation to Auckland Council (Long Term Plan Strategy Session), February 26.
- Grimes, Arthur. 2014. "Unlocking the Value of Land for Auckland's Growth." Presentation to Committee for Auckland Symposium, February 25.
- Grimes, Arthur. 2013. "Responsibility and Accountability in the Financial Sector." NZ-UK Link Visiting Professorship Lecture at the Institute of Advanced Legal Studies, School of Advanced Study, University of London, December 3. Also delivered to the Law and Economics Association of New Zealand, Auckland, February 26.
- Grimes, Arthur. 2013. "Central Banking After the GFC." Seminar to the All Party Parliamentary Group on Economics, Money & Banking, House of Commons, United Kingdom, November 27.

- Grimes, Arthur. 2013. "Spatial Impacts of Infrastructure Investment." Paper with Bill Cochrane, Philip McCann and Jacques Poot. Seminar to University of St Andrews, Edinburgh, November 21.
- Grimes, Arthur. 2013. "How Prudent are Macroprudential Policies?" NZ-UK Link Visiting Professorship Lecture at the London School of Economics, November 14.
- Grimes, Arthur. 2013. "Economic Impacts of the Creation of Brasilia City: A Natural Experiment in Regional Science." Paper with Jacques Poot and Valente Matlaba. Seminar to Spatial Economics Research Centre (LSE), November 6. Also delivered to the New Zealand Econometrics Study Group, University of Waikato, February 21.
- Grimes, Arthur. 2013. "A Floating Exchange Rate is the Worst Exchange Rate Regime (Except for All the Others that Have Been Tried)." NZ–UK Link Visiting Professorship Lecture at University College, London, October 24.
- Grimes, Arthur. 2013. "Inflation Targeting: 25 Years' Experience of the Pioneer." NZ–UK Link Visiting Professorship Lecture at the Bank of England, September 25. Also delivered at the University of Groningen, the Netherlands, November 11.

Motu Foundation

The Motu Research and Education Foundation is a related but separate entity to the Motu Economic and Public Policy Research Trust. It was established in 2006 with the aim of building world-class economic research capability in New Zealand. To do this, the Foundation works alongside a range of organisations, particularly the Motu Economic and Public Policy Research Trust, with generous financial support from patrons and donors.

The Motu Foundation

The Motu Research and Education Foundation was established in 2006 with the aim of building world-class economic research capability in New Zealand. To do this, the Foundation works alongside a range of organisations, particularly the Motu Economic and Public Policy Research Trust. Its work is made possible by generous financial support from patrons and donors.

The Motu Foundation

Established under its own Trust Deed in September 2006, the Motu Research and Education Foundation is a separate, but related entity to the Motu Economic and Public Policy Research Trust (Motu Research). The Foundation Trust has a broad mandate to help support economic research of international quality and to build strong economic capability within New Zealand.

High-quality public policy is critical to the future development of New Zealand. The Foundation's focus is on building world-class applied economic research capability to ensure that public policy decisions can be well informed by thorough and non-partisan research.

The Foundation collaborates particularly with Motu Research. Through the Trust the Foundation works to build capability by freely disseminating research, offering internships and scholarships for young economists, administering grants for research leadership and research collaboration, and providing seed funding for new research ventures.

The Motu Foundation is dependent on the support of patrons and donors for its funding and thanks them for their generosity and support.

Priorities and Activities

Over the past year the Foundation has continued to fund a number of initiatives, including:

1. Building Research Leadership and Economic Research Capability

To support the growth of a world-class economic research capability in New Zealand, in 2013/14 the Foundation allowed Motu Research to employ five top graduates, Nathan Chappell, Victoria Larsen, Fraser McKay, Jason Mika and Campbell Will, as summer interns. Building on our existing successful internship programmes, the Foundation has received a grant from the Poutama Trust to fund a Māori intern each year at Motu Research.

The summer internships at Motu Research have created opportunities for some of New Zealand's best graduates to gain first-hand research experience and be supervised by excellent researchers. It is exciting to see how past interns have proceeded to complete PhDs and are now embarking on their careers as researchers or working in important public policy areas.

In 2012, the Foundation established the Sir Frank Holmes Prize. This prize will be awarded annually to a top New Zealand final-year Economics undergraduate moving on to postgraduate studies in economics with a focus on application of econometrics to public issues. In October 2013 Motu was delighted to award the second Sir Frank Holmes Prize to Athene Laws, a student at Victoria University of Wellington. Sponsored by the Hugo Group and awarded by Motu annually, the Sir Frank Holmes Prize recognises both general academic excellence and the strong quantitative skills required to support both world-class research and high-quality public policy.

Motu also awards one Thesis Scholarship per year to a promising university student of Māori descent. Through this scholarship, we hope to enhance Māori research capability and encourage students of Māori descent to develop an interest in researching topics relevant to public policy development. Our 2014 recipient is Lara Greaves (Ngāti Kurī, Te Āti Awa, Ngā Puhi), who completed her BA and Honours degree at The University of Auckland. For her honours thesis, she developed a latent class model predicting the demographic characteristics and voting behaviour of swing voters in the New Zealand population. Her research addresses differing aspects of Māori identity. The Foundation also provided funding to bolster Motu Research's successful internal seminar series. This series, which is attended by Motu staff and local academics and researchers, aims to allow Motu researchers and visiting local and international scholars the opportunity for feedback on work in progress, while simultaneously allowing Motu's research to remain up-to-date with current research methodology and topics. It builds internal capability as well as developing Motu's relationships with local and visiting researchers. These seminars are based on works in progress and aim to increase collaboration in research in order to further understanding in economic analysis.

2. Research Dissemination

We ensure that existing knowledge, information and research about New Zealand public policy is readily accessible in New Zealand. This includes promoting the work of Motu Research through various publication channels including online, at conferences, seminars, workshops, and dialogue groups, and through teaching.

The Foundation continued to support events and communication channels to ensure that public policy research is readily accessible to those individuals, organisations and groups who can make use of its findings.

3. Supporting High-Quality Research

In 2013/142/13, the Kelliher Trust provided a grant through the Foundation that enabled research into the factors affecting changes in rural land pricesdeterminants of agricultural productivity in New Zealand. This research was undertaken by Research Analyst Corey AllanMatt Thirkettle under the mentorship of Suzi KerrAdam Jaffe.

Patrons and Donors

Our activities are funded through generous support from patrons, and other donations. Our patrons are the backbone of the Motu Research and Education Foundation. Their commitment provides an ongoing level of financial support that makes the Foundation's work possible.

The Foundation had seven patrons during 2013/14:

Auckland Council

Environmental Protection Agency

Fletcher Building Limited

Mighty River Power Limited

Ministry of Business, Innovation and Employment

Ministry for the Environment

Spark

In addition, as discussed above, the Foundation received funding from the Poutama Trust and the Kelliher Trust in support of our internship and mentorship programs. We continue to benefit from a generous donation from the Tindall Foundation in the 2007/08 year.

Financial Position

Our financial base continues to grow, and with this our ability to make a difference. Since the Foundation was established, our Investment Fund has built up to just over \$600,000. In 2013/14 we provided \$135,000 in funding for scholarships and research.

We are currently investing in a long-term development strategy to promote Motu to potential supporters, as well as ensuring the Foundation's ongoing funding for the next decade.

Foundation Board of Trustees

The Motu Research and Education Foundation is governed by a Board of Trustees, which consists of distinguished people from New Zealand's business and community sectors.



Neil Green *Chair Senate SHJ* Chief Executive Officer



Adam Jaffe Motu Director



Dr John Hay Dr John Hay & Associates Managing Director

Kerry Prendergast (CNZM) *Environmental Protection Authority* Chair



John Roberts Veda Advantage New Zealand and International Managing Director

Financial Information

Financial Information

The Motu Economic and Public Policy Research Trust's work is funded through research grants and sponsorship.

List of Grants

The following is a full list of grants and funding sources (of greater than \$30,000) active during the 2013/14 financial year:

Aotearoa Foundation, "Low Emissions Future", 2013–2015, \$600,000.

Institute of Geological & Nuclear Sciences Limited (GNS Science), "MSI Natural Hazards", 2012–2015, \$270,000.

Ministry of Business, Innovation and Employment (MBIE), "Research to Estimate the Effect of Exporting on Innovation and the Role of Immigrants", 2013–2014, \$50,000.

Motu Research and Education Foundation, "Kelliher Agricultural Productivity Project", 2014, \$50,000.

National Institute of Water and Atmospheric Research Limited (NIWA), "Climate Impacts", 2012–2016, \$600,000.

New Zealand Productivity Commission, "Research Partnership for Use of the Longitudinal Business Database (LBD), 2013–2016, \$400,000.

The Royal Society of New Zealand, "Marsden Fund – Wellbeing & Sustainability Measures", 2013–2016, \$773,913.

Tertiary Education Commission, "Tertiary IDI Pathways Project", 2013–2015, \$85,000.

University of Otago, Wellington, "Resilient Urban Futures", 2012–2016, \$408,000.

University of Waikato, "Nga Tangata Oho Mairangi", 2013–2014, \$100,000.

University of Waikato, "The Sub-national Mechanisms of the Ending of Population Growth: Towards a Theory of Depopulation", 2014–2017, \$75,000.

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Motu Economic and Public Policy Research Trust

Summary Group Statement of Financial Performance for the Year Ended 30 June 2014

| | 2014 | 2013 |
|---------------------------------|-----------|-----------|
| | \$ | \$ |
| INCOME | | |
| Research Grants | 1,321,087 | 953,972 |
| Interest Received | 69,254 | 86,589 |
| Patron Income and Donations | 90,000 | 100,000 |
| Other Income | 65,190 | 55,284 |
| Total Income | 1,545,531 | 1,195,845 |
| LESS EXPENSES | | |
| Personnel | 1,091,964 | 911,632 |
| Research Project Costs | 190,887 | 142,227 |
| Other Operating Expenses | 278,801 | 357,594 |
| Total Operating Expenses | 1,561,652 | 1,411,453 |
| (DEFICIT)/SURPLUS | (16,121) | (215,609) |
| OTHER EXPENSES | | |
| Senior Fellow Research Accounts | 34,689 | 15,396 |
| TOTAL EXPENSES | 1,596,341 | 1,426,850 |
| NET (DEFICIT)/SURPLUS | (50,810) | (231,005) |
| | | |

Motu Economic and Public Policy Research Trust

Summary Group Statement of Movements in Equity for the Year Ended 30 June 2014

| | 2014 | 2013 |
|--|-----------|-----------|
| Net /Definit)/Cumulus for the user | \$ | \$ |
| Net (Deficit)/Surplus for the year | (50,810) | (231,004) |
| Total recognised revenues & expenses | (50,810) | (231,004) |
| Opening Equity | 1,514,403 | 1,745,407 |
| Closing Equity | 1,463,593 | 1,514,403 |
| | | |
| SENIOR FELLOW RESEARCH RESERVE | | |
| Opening Senior Fellow Research Reserve | 257,200 | 272,645 |
| | | |
| Transfers (to)/from Accumulated Funds | (18,378) | (49) |
| Expenses funded by Reserve | (34,689) | (15,396) |
| Closing Senior Fellow Research Reserve | 204,133 | 257,200 |
| Closing Senior Fellow Research Reserve | 204,133 | 237,200 |
| ACCUMULATED FUNDS | | |
| Opening Accumulated Funds | 1,257,203 | 1,472,762 |
| | | |
| Net (Deficit)/Surplus for the year | (50,810) | (231,004) |
| Net Transfers from/(to) Senior Fellow Research Reserve | 53,067 | 15,445 |
| | | |
| Closing Accumulated Funds | 1,259,460 | 1,257,203 |
| This Statement has been prepared on the basis as described p. 36 | | |

Motu Economic and Public Policy Research Trust

Summary Group Statement of Financial Position as at 30 June 2014

| | 2013 | 2013 |
|---------------------------------------|-----------|-----------|
| | \$ | \$ |
| CURRENT ASSETS | | |
| Cash and Bank | 90,652 | 138,937 |
| Investments | 1,673,199 | 1,387,519 |
| Accounts Receivable | 274,724 | 462,137 |
| Work in Progress | 20,202 | 65,748 |
| Total Current Assets | 2,058,777 | 2,054,341 |
| CURRENT LIABILITIES | | |
| Accounts Payable and Accrued expenses | 211,764 | 215,020 |
| Income Received in Advance | 454,561 | 460,613 |
| Total Current Liabilities | 666,325 | 675,6323 |
| WORKING CAPITAL | 1,392,452 | 1,378,708 |
| NON-CURRENT ASSETS | | |
| Plant, Property & Equipment | 63,830 | 55,695 |
| Investments | - | 80,000 |
| Accounts Receivable | 7,311 | - |
| Total Non-Current Assets | 71,141 | 135,695 |
| | | |
| NET ASSETS | 1,463,593 | 1,514,403 |
| | | |
| Represented by; | | |
| Accumulated Funds | 1,259,460 | 1,257,203 |
| Senior Fellow Research Reserve | 204,133 | 257,200 |
| | | |
| EQUITY | 1,463,593 | 1,514,403 |
| | | |

Motu Economic and Public Policy Research Trust

Note to the Summary Group Financial Statements for the Year Ended 30 June 2014

The summary financial statements for Motu Economic and Public Policy Research Trust for the year ended 30 June 2013 on pages 35 and 36 have been extracted from the full financial reports. The full financial reports were adopted by the Board of Trustees on 29 October 2014. The full financial statements were prepared in accordance with New Zealand generally accepted accounting practice ("NZ GAAP"). NZ GAAP in the case of the Group means Statement of Standard Account Practice and Financial Reporting Standards. The Group qualifies for the Framework for Differential Reporting.

The summary financial statements cannot be expected to provide as complete an understanding as provided by the full financial reports. A copy of the full financial reports can be obtained by email to: finance@motu.org.nz.

The auditor BDO Wellington has reviewed the summary financial statements for consistency with the audited full financial statements. An unqualified audit opinion has been issued. These summary financial statements have been approved for issue by the Board of Trustees.

John Hay

John Hay Chair

29 October 2014



REPORT OF THE INDEPENDENT AUDITOR ON THE GROUP SUMMARY FINANCIAL STATEMENTS TO THE MEMBERS OF MOTU ECONOMIC AND PUBLIC POLICY RESEARCH TRUST

The accompanying group summary financial statements which comprise the summarised group statement of financial position as at 30 June 2014, the summarised group statement of financial performance, and the summarised group statement of movements in equity for the year then ended, and related notes, are derived from the group audited financial statements of Motu Economic and Public Policy Research Trust for the year ended 30 June 2014. We expressed an unqualified audit opinion on those financial statements in our report dated 29 October 2014.

The group summary financial statements do not contain all the disclosures required for full financial statements under generally accepted accounting practice in New Zealand. Those financial statements, and the summary financial statements, do not reflect the effects of events that occurred subsequent to the date of our report on those financial statements. Reading the group summary financial statements, therefore, is not a substitute for reading the audited group financial statements of Motu Economic and Public Policy Research Trust.

Board of Trustees' Responsibility for the Summary Financial Statements

The Board of Trustees are responsible for the preparation of a summary of the audited financial statements in accordance with FRS-43 *Summary Financial Reports*.

Auditor's Responsibility

Our responsibility is to express an opinion on the group summary financial statements based on our procedures, which were conducted in accordance with International Standard on Auditing (New Zealand) (ISA (NZ)) 810 Engagements to Report on Summary Financial Statements.

Other than in our capacity as auditor we have no relationship with, or interests in, Motu Economic and Public Policy Research Trust and its subsidiary.

Opinion

In our opinion, the group summary financial statements derived from the audited group financial statements of Motu Economic and Public Policy Research Trust for the year ended 30 June 2014 are consistent, in all material respects, with those financial statements, in accordance with FRS-43 *Summary Financial Reports*.

BDo Wellington

BDO Wellington 29 October 2014 Wellington New Zealand

PRODUCING HIGH-QUALITY RESEARCH PROMOTING REASONED DEBATE DISSEMINATING TOPICAL ECONOMIC AND PUBLIC POLICY RESEARCH



MOTU RESEARCH AND EDUCATION FOUNDATION info@motufoundation.org.nz www.motufoundation.org.nz

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