2018 highlights

Last year, I commented that a key output for almost all academics is their publications. This year has been especially pleasing in that regard, with papers accepted and published on measuring income mobility and poverty persistence (with co-author John Creedy) in *Oxford Economic Papers* and the *Economic Record*, and (with Marisa Ratto) on responses to New Zealand’s GST penalties in the *US National Tax Journal*. These publications represent the culmination of two major research projects begun in 2016 on income mobility and tax compliance responses.

Other Chair in Public Finance (CPF) tax compliance research showed a significant advance in 2018 in the form of the first ‘tax gap’ estimates for the self-employed in New Zealand. Officials at Inland Revenue (IR) have rightly been sceptical over the years of conventional, but inadequate, tax gap measures. As a result, they do not publish aggregate tax gap numbers for New Zealand, unlike several other countries. However, working on IR’s own tax return declared income data with IR researcher Dr Ana Cabral, we were able to produce more reliable estimates of ‘missing income’ by the self-employed. These suggest that, on average, the self-employed appear to declare around 20 percent less personal income on their tax returns than equivalent employees. Importantly, equivalent estimates based on household survey data, rather than IR tax return data, yield substantial underestimates of the income gap.

A major focus throughout the year was establishing a project to build models of income taxation for New Zealand that capture behavioural responses by taxpayers when personal taxes and transfers change. This was supported by the Ministry of Business, Innovation and Employment. In the early phases of the project in 2017, the first workable prototype microsimulation models were developed and tested, and agreements reached with overseas collaborators to benchmark our models against theirs. In 2018, the project team extended and tested these models to benchmark them against models for other small fiscal economies such as Australia, Belgium, and Norway, and engage in vital knowledge transfer through technical advisory groups, liaison with tax officials, workshops, masterclasses, and conference presentations. Several working papers and journal publications have resulted.

In 2018, the Treasury published the second edition of its *Investment Statement*—the first was in 2014. I was privileged to be a part of Treasury’s external engagement process and launch panel (in March) for the *Statement*, and it is pleasing to see each new iteration evolve. More importantly, now that the Treasury, rather than the Government, is responsible for this periodic exercise, it brings a more accountable and transparent contribution to New Zealand’s fiscal reporting framework. As well as providing regular oversight and assessment of the overall state of the Crown’s net asset position, the 2018 *Statement* highlighted specific areas of both weaknesses and strength within the Crown portfolio. Perhaps the most worrying aspect to emerge was the continued inadequate reporting metrics on asset performance provided by various Crown entities, despite ongoing pressure for improvement.

There was another successful public economics research day in April, and a joint tax workshop and microsimulation masterclass with the Tax Administration Research Centre (University of Exeter, UK) in December, each held in Wellington. We were delighted to have leading public economics researchers from Australia, the UK, the US, and New Zealand at these events, which enable policy officials and academics to share ideas, practical experience, and policy-relevant research.

Finally, our regular newsletters provided updates of recent research and events throughout the year and featured articles from other public finance scholars and officials. A particularly interesting example, in November, was from Georgina Haarhoff at the Welsh Treasury, UK, as the Welsh Government seeks to implement its newly devolved tax-raising powers.
Initiatives are already being planned for 2019. These include:

- assessing the work and forthcoming final report of the Government’s Tax Working Group and potential policy initiatives in response

- holding another two-day workshop on international tax modelling and benchmarking to be held at the Tax Administration Research Centre, University of Exeter, UK in March, including several collaborators from Australia, the UK, and other European countries

- planning and delivering the next New Zealand public economics research day in 2019

- further developing a new independent tax-transfer microsimulation model hosted at Victoria University, with Nazila Alinaghi, John Creedy and a new PhD student, Christopher Ball

- researching tax incentives for charitable giving with Peer Skov (Auckland University of Technology) and a new PhD student, Amy Cruickshank

- developing the next phase of work with Nazila Alinaghi and John Creedy on measuring household income mobility and poverty persistence in New Zealand using Statistics New Zealand’s Integrated Data Infrastructure.

On government policy, 2019 can be expected to be the year—in the middle of the Government’s Parliamentary term—when the outcomes from numerous policy reviews and working groups get turned into policy proposals. The big public finance policy initiatives can be expected to be the Government’s chosen approach to its proposed Independent Fiscal Institution and the tax changes arising from the Tax Working Group’s recommendations. Will a capital gains tax proposal finally make it onto New Zealand’s fiscal landscape before the next election? What type of ‘independent oversight’ of governments’ fiscal policy settings will the current government opt for?

In a rare example of cross-party political cooperation in 2018, both Government and Opposition parties agreed to support a bill that will require future New Zealand governments to report on, and target, child poverty levels. This begs the question of how poverty levels or reductions are to be measured, but provides ample opportunity for rigorous and transparent research on child poverty measurement to become front and centre of that national discourse. Let’s hope we can do better than some of the crude household measures currently prominent in popular debates. The roles of the Government’s own spending and tax raising are clearly critical for measurement of these poverty outcomes.

Finally, in 2019 we say au revoir, but not adieu, to Anna Burnett, our CPF administrator, as she takes an extended period of maternity leave. By the time she returns I’m sure we will be desperate to welcome back her unique combination of professional expertise and perennial smile.

Norman Gemmell
Chair in Public Finance
Aims and objectives

The CPF was established in 2011 at Victoria University of Wellington with sponsorship for five years from four external sponsors. In 2017, a new five-year term of sponsorship began with the New Zealand Treasury, Inland Revenue, Ministry of Education, and the Productivity Commission joining the University in supporting the Chair.

The Chair is in Victoria Business School within the School of Accounting and Commercial Law and reports to an advisory board. The Chair aims to build up expertise in the area of public finance and to promote research, debate, policy analysis, and advice on public finance matters. Specifically, the Chair’s objectives are:

- to advance rigorous, respected public finance research in New Zealand
- to improve the quality of public finance analysis and discussion among key stakeholders in New Zealand
- to develop public finance research and teaching capabilities in New Zealand
- to research these topics, focusing on broad conceptual, empirical and policy issues, and on specific applications to New Zealand public finance and social welfare policy debates
- to strengthen collaboration between the University and the public and private sectors on public finance issues.

Advisory board

The CPF is supported by an advisory board that includes senior representatives from the University and partner and sponsoring organisations. The role of the board is to advise and support:

- the research work programme of the CPF
- links with key stakeholders
- policy and public engagement initiatives
- the financial underpinning of the Chair.

The Chair reports regularly to the advisory board on the research, public and executive education, and other matters relevant to its work programme.

Reflecting the changes in sponsorship of the CPF in 2018, the board members were:

- **Mr Gerald Minnée**
  Policy Director, Ministry of Business Innovation and Employment (advisory board chair)

- **Dr Matt Benge**
  Chief Economist, Inland Revenue

- **Mr Paul Conway**
  Director, Economics and Research, New Zealand Productivity Commission

- **Mr Tim Ng**
  Chief Economic Adviser, the Treasury

- **Dr Philip Stevens**
  Group Manager Analysis and Research, Ministry of Education

and, from Victoria University of Wellington:

- **Professor Ian Williamson**
  Pro-Vice-Chancellor and Dean, Victoria Business School

- **Associate Professor Carolyn Fowler**
  Head of the School of Accounting and Commercial Law

- **Professor Girol Karacaoglu**
  Head of the School of Government

- **Associate Professor Jack Robles**
  Head of the School of Economics and Finance.
# Research

## RESEARCH HIGHLIGHTS 2017–2018

### The Impact of Taxes and Public Spending on Long-run OECD Growth

**Researchers**
Norman Gemmell, Richard Kneller, Danny McGowan, Ismael Sanz, and José Sanz-Sanz

This research project was completed in 2017 with the publication of research on the links between public spending and economic growth and the analysis of firm-level data on the effect of corporate tax rates on growth rates in various OECD countries, including a case study of Germany.

**Published paper**

### Estimating the Elasticity of Taxable Income (ETI) in New Zealand

**Researchers**
John Creedy, Norman Gemmell, and Josh Teng

This project investigates two aspects of the ETI concept: the impact of different econometric approaches on estimates of the elasticity of taxable income, based on the New Zealand 2001 reform; and analysis of the 2010 tax reforms that reduced all marginal income tax rates and simultaneously raised the rate of GST.

**Published papers**


**Working paper**

### The Size and Scope of the Public Sector in New Zealand

**Researchers**
Norman Gemmell, Derek Gill, and Loc Nguyen

This project began by documenting the changing size and scope of the public sector in New Zealand since the early 20th century, using a variety of metrics to assess government size. Using a public expenditure to GDP ratio metric, the project examines how far short- and long-term changes in size since the 1970s can be explained by existing theories of public expenditure applied to New Zealand. The work is being undertaken in conjunction with the New Zealand Institute of Economic Research (NZIER) and is contributing to their public data project (www.data1850.com).

**Published papers**


### Income Inequality, Income Mobility and the Tax/Benefit System in New Zealand

**Researchers**
Christopher Ball, John Creedy, Norman Gemmell, and Loc Nguyen

This project aims to identify the extent of income inequality and income mobility among New Zealand taxpayers over several decades, including annual estimates of income inequality since the 1930s. Current research is focusing on conceptual and empirical linkages between alternative inequality and mobility measures and the roles of taxes, transfers, and other forms of social welfare spending in mitigating or enhancing income mobility and inequality.

**Published papers**


**Working paper**
Local Taxes and Auckland Agglomeration

Researchers Norman Gemmell, Arthur Grimes, and Mark Skidmore

In 2010, the Auckland super city was formed through the amalgamation of seven local authorities, consisting of around 200 suburban entities and towns. The amalgamation resulted in communities using capital values as the basis for local taxation (rates), whereas some communities had previously used land values. The new city also transitioned to a single system of ‘development contributions’ paid by developers. This project examines how far the changes in the Auckland property tax regime affected the location and intensity of building development. This research was undertaken with the support of Lincoln Institute of Land Policy, Cambridge, Massachusetts, USA; and Motu Economic and Public Policy Research, Wellington, New Zealand.


Public Service Productivity

Researchers Norman Gemmell, Patrick Nolan, and Grant Scobie

This project reviews current evidence on public-sector productivity in New Zealand at both the aggregate level and for key sectors, drawing on international literature on concepts, measurement, and evidence. It aims to develop a principled framework for the analysis of public-sector productivity with a focus on the micro level. This micro focus began in 2015–16 with public education. Specifically, the project reviewed existing evidence on productivity in the New Zealand education sector and assessed new approaches to adjusting for quality in measuring education sector productivity in New Zealand. In 2016–17, the project examines similar issues for public-sector health services.


Tax compliance and behavioural responses

Researchers Ana Cabral, Norman Gemmell, John Hasseldine, and Marisa Ratto

Early research for this project (2012–16) examined the reliability of alternative measures of taxpayer compliance: the so-called tax gap. Having reviewed conventional methodologies, current research is concentrating on assessing new methods proposed by the International Monetary Fund and OECD and on how taxpayers’ behavioural responses can be suitably recognised. Recent research has focused on two aspects. Firstly, compliance enforcement and penalties, testing for the effects of both actual and perceived penalty rates on late payment compliance based on an experiment involving New Zealand GST payers. Second, measuring income gaps for self-employed taxpayers using both survey and administrative (register) data, allowing for differences in measurement error across datasets.


Modelling and Benchmarking Personal Income Taxes and Transfers in New Zealand

Researchers Nazila Alinaghi, John Creedy, Norman Gemmell, Nicolas Hérault, Penny Mok, and Matt Nolan

This project began in mid-2016 and is developing new behavioural microsimulation models of personal income taxes and transfers in New Zealand. These will be benchmarked internationally by comparing them with similar models for Australia and some European countries. The project aims to improve the evidence base for tax policy advice in practice and is being conducted in collaboration with modellers at the New Zealand Treasury. It is also supported by a three-year Endeavour Fund grant from the Ministry of Business, Innovation and Employment. Current applications of the microsimulation model include examining optimal income tax reforms and the inequality impacts of changes to minimum wage rates versus taxes and transfers.


JOURNAL ARTICLES, BOOKS AND BOOK CHAPTERS


POLICY/MEDIA ARTICLES

CONFERENCE AND SEMINAR PRESENTATIONS

Lead presenter in bold


WORKING PAPERS IN PUBLIC FINANCE

The Working Papers in Public Finance series includes papers by the Chair, New Zealand Public Finance (NZPF) research associates, and other public finance researchers.

Papers in the 2018 series

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<thead>
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<th>Number</th>
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<tr>
<td>WP14/2018</td>
<td>Buckle, R.</td>
<td>Thirty years of inflation targeting in New Zealand: The origins, evolution, and influence of a monetary policy innovation</td>
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<td>A quarter of a century of fiscal responsibility: The origins and evolution of fiscal policy governance and institutional arrangements in New Zealand, 1994 to 2018</td>
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<td>Nolan, M.</td>
<td>Did tax-transfer policy change New Zealand disposable income inequality between 1988 and 2013?</td>
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<td>Creedy, J., and Gemmell, N.</td>
<td>Income inequality in New Zealand: Why conventional estimates are misleading</td>
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<td>WP10/2018</td>
<td>Harkness, J., and Tipper, A.</td>
<td>Environmental taxation and expenditure in New Zealand</td>
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<td>Creedy, J., Gemmell, N., Hérault, N., and Mok, P.</td>
<td>Microsimulation analysis of optimal income tax reforms: An application to New Zealand</td>
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<td>New Zealand wage equations: 1988–2013</td>
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<td>The elasticity of taxable income of individuals in couples</td>
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<td>WP03/2018</td>
<td>Buckle, R., and Creedy, J.</td>
<td>The impact on research quality of performance-based funding: The case of New Zealand’s PBRF scheme</td>
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<td>Nolan, M.</td>
<td>Income tax and transfer policy changes in New Zealand: 1988–2013</td>
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<td>WP01/2018</td>
<td>Nolan, M.</td>
<td>Horizontal and vertical equity in the New Zealand tax-transfer system: 1988–2013</td>
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NEWSLETTERS

Public finance newsletters were produced in March, July, and November (available at www.victoria.ac.nz/sacl/centres-and-institutes/cpf/publications/newsletters). Each newsletter aims to provide summaries of recent research, discussion of topical public finance policy issues, and reports on recent and forthcoming events.

The 2018 newsletters included:

- summaries of research on research quality impacts of the PBRF, and horizontal and vertical equity in the New Zealand tax-transfer system (March)
- links to the new OECD tax database—Global Revenue Statistics (July)
- a report from the Welsh Treasury on its new devolved tax-raising powers within the UK tax system (November).

To receive future issues of the newsletter, email cpf-info@vuw.ac.nz asking to be added to the email list.
PUBLICATION OUTREACH

The CPF uses various tools to track the number of publication downloads and citations to show which research areas are generating most interest. Citations of journal publications are tracked by Publish or Perish software. The Working Papers in Public Finance (WPPF) series is tracked via Research Papers in Economics (RePEc) and Victoria Research Archives.

Total number of citations

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*Due to a change in the Publish and Perish software, this appears not to be comparable to previous values.

Downloads for the WPPF series began in September 2012. The table below shows the download statistics through the Victoria University of Wellington Research Archive and RePec for each calendar year, from September 2012 to December 2018.

WPPF series downloads (annual)

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The full RePEc abstract view and download statistics for the WPPF series are below.

**PHD STUDENTS**

**David Law, OECD**

**Research project:** The performance of the New Zealand economy: Savings and retirement income

**Abstract:** This thesis uses a variety of empirical techniques and data sources to explore aspects of New Zealand’s savings behaviour, policy, and other issues related to retirement income adequacy such as housing affordability. The performance of a flagship policy (KiwiSaver) is examined, with attention given to whether membership has been associated with higher levels of net wealth, saving, or improved expected retirement-income outcomes. With KiwiSaver’s poor performance, the effects of other retirement income policies on national savings are examined by developing a model that links these policies to reductions in New Zealand Superannuation costs. Finally, patterns of housing affordability across individuals are described and explained using panel-regression techniques, and the likely effects of a policy designed to improve housing affordability are explored.

**Status:** Awarded PhD in 2018.

**Alastair Thomas, OECD Centre for Tax Policy and Administration**

**Research project:** The distributional effects of consumption taxes in OECD countries

**Abstract:** This research investigates the distributional effects of consumption taxes in OECD countries. The analysis is based on consumption tax microsimulation models constructed using household expenditure microdata for 23 OECD countries, including New Zealand. The first part of the research investigates whether consumption taxes are regressive or progressive, by undertaking a detailed distributional analysis of consumption tax burdens across income and expenditure deciles. The models are then used to examine the effectiveness of reduced and zero GST/VAT rates at achieving redistributional goals. A third part of the research will be to simulate the redistributive effects of various hypothetical reforms, including removing poorly targeted reduced and zero GST/VAT rates identified in the prior analysis.

**Status:** Following a temporary suspension of Alastair’s PhD research in 2017, he resumed his studies in 2018 and is expected to submit in 2019.

**Matt Nolan, Senior Analyst, Economics, Inland Revenue.**

**Research project:** Household tax-transfer policies and New Zealand’s income distribution: 1981–2014

**Abstract:** This research investigates the role changes in tax and transfer policy settings played in the evolution of income inequality in New Zealand between 1984 and 2013. By adding to our understanding of the role of policies in influencing income inequality, Matt hopes his research will help inform the current policy debate about income inequality in New Zealand. Prior to undertaking his research, Matt was a macro-economic forecaster at Infometrics. His role focused on investigating patterns in household consumption and private investment. Matt moved to a new role in 2018, working in Inland Revenue’s policy and strategy team.

**Status:** Submitted PhD in 2018.
RESEARCH FELLOWS AND SCHOLARS

During 2018, Dr Nazila Alinaghi continued in her role as research fellow in Public Finance and joined the team working on tax microsimulation modelling. The Chair also continued to co-supervise research scholar Huon Fraser on a joint project with the Productivity Commission on health-sector productivity.

**Nazila Alinaghi**

**Research fellow in Public Finance**

Dr Nazila Alinaghi joined the University to work with the Chair on public finance research and engagement. Nazila, originally from Iran, completed her PhD at the University of Canterbury on the topic of taxes and growth, and was recently awarded three prizes at the 2017 New Zealand Association of Economists annual conference. These included the Jan Whitwell prize for best conference presentation by a student, the Seamus Hogan prize for best public policy paper written by a student, and a Graduate Study Award Prize for participation in the 2017 conference. Nazila produced two working papers in her first three months and is currently working on tax-transfer microsimulation modelling and estimating taxable income elasticities (tax compliance) for New Zealand.

**Huon Fraser: Research scholar**

**Topic:** Measuring health-sector productivity

**Sponsored by:** New Zealand Productivity Commission

**Research project:** This project is part of a larger investigation into the determinants of productivity growth in the public sector; in this case focusing on the question of how to assess changes in productivity in the health system. The project initially reviewed local and international evidence on health-sector productivity and examined how techniques can best be applied in New Zealand. A second phase of work, begun in October, is collecting suitable New Zealand data to investigate public health productivity growth over the past decade.
Events and stakeholder engagement

Events included:

■ Public guest lecture by Professor Miranda Stewart: Company Tax in the Trump Era: Options for Fiscally Sustainable Reform. (February)
■ Tax-Transfer Microsimulation Models: International Benchmarking Workshop (March)
■ Public Economics Research Day (April)
■ Public Economics Workshop on Modelling Tax Policy and Compliance, sponsored jointly with the Tax Administration Research Centre, University of Exeter, UK (December)
■ Tax-Transfer Microsimulation Masterclass, sponsored jointly with the Tax Administration Research Centre, University of Exeter, UK (December).

More details of those events are on the CPF website at www.victoria.ac.nz/sacl/centres-and-institutes/cpf/events

Other engagement activities included the Chair being:

■ a member of the Treasury’s External Engagement Group for Investment Statement 2018 (January-March)
■ a member of the Treasury’s Investment Statement launch event panel (March)
■ the chair of the Treasury’s tax modelling Technical Advisory Group (January–April)
■ an adviser to Inland Revenue and Treasury officials on their Tax Working Group background research papers (May–June)
■ a presenter and adviser to the Welsh Treasury, Cardiff, UK (September).

Working with sponsors

Financial support from sponsors in 2018 included core funding for the CPF from Victoria University of Wellington, Inland Revenue, the Ministry of Education, the Treasury, and the New Zealand Productivity Commission.

We have also received funding or in-kind support for specific events or pieces of work from the following organisations:

■ New Zealand Institute of Economic Research for research on income inequality and income mobility
■ New Zealand Productivity Commission for a 2017–18 research scholarship
■ Ministry of Business Innovation and Employment and the Tax Administration Research Centre for research and workshop support on tax microsimulation
■ The Treasury for hosting a roundtable on fiscal sustainability.