

CURRICULUM VITAE

Levente Timar

PRESENT POSITION

Research Fellow	Motu Economic and Public Policy Research Level 1, 97 Cuba Street Wellington 6011, New Zealand levente.timar@motu.org.nz (04) 939 4250	2014–
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PAST POSITIONS

Research Economist	GNS Science, Lower Hutt, New Zealand & Motu Economic and Public Policy Research Wellington, New Zealand	2009–2016 2009–2014
Adjunct Lecturer	North Carolina State University	2009
Tutor	North Carolina State University	2008–2009
Graduate Research Assistant	North Carolina State University	2004–2008
Graduate Teaching Assistant	North Carolina State University	2001–2003, 2008

EDUCATION

PhD	Economics	North Carolina State University	2008
MA	Economics	North Carolina State University	2004
BA	Economics	University of Northern Iowa	2001

PEER-REVIEWED PUBLICATIONS

- McDonald, N., L. Timar, G. McDonald and C. Murray. 2020. “Better resilience evaluation.” *Bulletin of the New Zealand Society for Earthquake Engineering*, 53(4): 203-214.
- Timar, L.; A. Grimes and R. Fabling. 2018. “That Sinking Feeling: The Changing Price of Urban Disaster Risk Following an Earthquake.” *International Journal of Disaster Risk Reduction*, 31: 1326-1336.
- Timar, L.; A. Grimes and R. Fabling. 2017. “Before a Fall: Impacts of Earthquake Regulation on Commercial Buildings.” *Economics of Disasters and Climate Change*, 2(1): 73-90.
- Keller, E.D.; W.T. Baisden; L. Timar; B. Mullan and A. Clark. 2014. “Grassland Production under Global Change Scenarios for New Zealand Pastoral Agriculture.” *Geoscientific Model Development*, 7: 2359–2391.

Kerr, S.; S. Anastasiadis; A. Olssen; W. Power; L. Timar and W. Zhang. 2012. “Spatial and Temporal Responses to an Emissions Trading Scheme Covering Agriculture and Forestry: Simulation Results from New Zealand.” *Forests*, 3(4):1133–1156.

Timar, L. and D.J. Phaneuf. 2009. “Modeling the Human-Induced Spread of an Aquatic Invasive: The case of the Zebra Mussel.” *Ecological Economics*, 68: 3060–3071.

REFEREED CONFERENCE PROCEEDINGS

Ausseil, A.G.E.; K. Bodmin; A. Daigneault; E. Teixeira; E.D. Keller; M.U.F. Kirschbaum; L. Timar; A. Dunningham; C. Zammit; S. Stephens; M. Cameron; P. Blackett; G. Harmsworth; B. Frame; A. Reisinger; A. Tait and D. Rutledge. 2016. “Climate change impacts and implications: an integrated assessment in a lowland environment of New Zealand.” Proceedings of the 8th International Congress on Environmental Modelling and Software, International Environmental Modelling and Software Society (iEMSs). 10-14 July 2016, Toulouse, France.

Johnston, D.M.; J.S. Becker; M.A. Coomer; S. Cronin; M.C. Daly; E. Doyle; S. Glassey; B. Glavovic; R. Houghton; M. Hughes; S. Johal; S. Jolly; G.S. Leonard; L. Patterson; R. Peace; W.S.A. Saunders; K. Stuart; R. Tarrant; H. Taylor; I. de Terte; L. Timar; R. Tuohy; K.C. Wright; D. Paton; S. Reese; K. Ronan and T. Wilson. 2011. “Exploring elements of an effective recovery process.” Proceedings of the Ninth Pacific Conference on Earthquake Engineering: Building an Earthquake Resilient Society. Auckland, New Zealand.

BOOK CHAPTERS

Fabling, R.; A. Grimes and L. Timar. 2019. “Natural Selection: Firm Performance Following a Catastrophic Earthquake,” in *Resilience and Urban Disasters: Surviving Cities*, edited by Kamila Borsekova and Peter Nijkamp, Edward Elgar Publishing.

OTHER PUBLICATIONS

Vetharanim I., K. Müller, J. Stanley, C. van den Dijssel, L. Timar and M. Cummins. 2021. “Modelling the effect of climate change on land suitability for growing perennial crops.” MPI Technical Paper No: 2022/06.

Timar, L. and Eyal Apatov. 2020. “A Growing Problem: Exploring Livestock Farm Resilience to Droughts in Unit Record Data.” *Motu Working Paper* 20-14, Motu Economic and Public Policy Research, Wellington.

Timar, L. 2019. “Climate and Land Use Change: a Synthesis of LURNZ Modelling” Motu Note #35 - May 2019, Motu Economic and Public Policy Research, Wellington.

Hendy, Jo, Anne-Gaelle Ausseil, Isaac Bain, Élodie Blanc, David Fleming, Joel Gibbs, Alistair Hall, Alexander Herzig, Patrick Kavanagh, Suzi Kerr, Catherine Leining, Laëtitia Leroy, Edmund Lou, Juan Monge, Andy Reisinger, Jim Risk, Tarek Soliman, Adolf Stroombergen, Levente Timar, Tony van der Weerdan, Dominic White and Christian Zammit. 2018. “Land-use modelling in New Zealand: current practice and future needs.” *Motu Working Paper* 18-16, Motu Economic and Public Policy Research, Wellington.

- Daigneault, A.; S. Elliot; S. Greenhalgh; S. Kerr; E. Lou; L. Murphy and L. Timar. 2017. "Modelling the Potential Impact of New Zealand's Freshwater Reforms on Land-Based Greenhouse Gas Emissions." *Motu Working Paper* 17-10, Motu Economic and Public Policy Research, Wellington.
- Rutledge, D.T., A.G.E. Ausseil; T. Baisden; G. Bodeker; D. Booker; M.P. Cameron; D.B.G. Collins; A. Daigneault; M. Fernandez; B. Frame; E. Keller; S. Kremser; M.U.F. Kirschbaum; J. Lewis; B. Mullan; A. Reisinger; A. Sood; S. Stuart; A. Tait; E. Teixeira; L. Timar; C. Zammit. 2017. "Identifying Feedbacks, Understanding Cumulative Impacts and Recognising Limits: A National Integrated Assessment. Synthesis Report RA3." *Climate Change Impacts and Implications for New Zealand to 2100*. MBIE contract C01X1225, Wellington.
- Rutledge, D.T.; T. Baisden; N. Cradock-Henry, E. Keller; N. Mason; B. Mullen; J. McC. Overton; A. Sood; S. Stuart; A. Tait; L. Timar; V. Vetrova; C. Zammit. 2017. "Upper Waitaki Catchment. Synthesis Report RA2, Uplands Case Study." *Climate Change Impacts and Implications (CCII) for New Zealand to 2100*. MBIE Contract C01X1225, Wellington.
- Ausseil, A.G.E.; K. Bodmin; A. Daigneault; E. Teixeira; E.D. Keller; T. Baisden; M.U.F. Kirschbaum; L. Timar; A. Dunningham; C. Zammit; S. Stephens; R. Bell; M. Cameron; P. Blackett; G. Harmsworth; B. Frame; A. Reisinger; A. Tait and D. Rutledge. 2017. "Climate Change Impacts and Implications for New Zealand to 2100: Synthesis report RA2 lowland case study." *Synthesis Report LC2714*. *Climate Change Impacts and Implications for New Zealand to 2100*. MBIE contract C01X1225, Wellington.
- Timar, L. 2016. "Yield to change: Modelling the land-use response to climate-driven changes in pasture production" *Motu Working Paper* 16-15, Motu Economic and Public Policy Research, Wellington.
- Timar, L. 2016. "Does money grow on trees? Mitigation under climate policy in a heterogeneous sheep-beef sector." *Motu Working Paper* 16-09, Motu Economic and Public Policy Research, Wellington.
- Fabling, R.; A. Grimes and L. Timar. 2016. "Labour market dynamics following a regional disaster." *Motu Working Paper* 16-07, Motu Economic and Public Policy Research, Wellington.
- Timar, L.; A. Grimes and R. Fabling. 2015. "Before a Fall: Impacts of Earthquake Regulation and Building Codes on the Commercial Building Market." *Motu Working Paper* 15-19, Motu Economic and Public Policy Research, Wellington.
- Timar, L.; S. Anastasiadis and S. Kerr. 2015. "Cost sharing and free allocation in a nutrient trading system with heterogeneous farms: A model of the Lake Rotorua catchment." *GNS Science Report* 2014/27.
- Timar, L.; E. Keller and T. Le. 2015. "A regional summary of 2012 land use." *Technical Documentation*, Motu Economic and Public Policy Research, Wellington.
- Timar, L.; A. Grimes and R. Fabling. 2015. "The Changing Price of Disaster Risk Following an Earthquake." *Asymmetric Information*, Newsletter of the New Zealand Association of Economists, Issue No. 52, April.

- Timar, L.; A. Grimes and R. Fabling. 2014. "That Sinking Feeling: The Changing Price of Disaster Risk Following an Earthquake." *Motu Working Paper* 14-13, Motu Economic and Public Policy Research, Wellington.
- Fabling, R.; A. Grimes and L. Timar. 2014. "Natural Selection: Firm Performance Following the Canterbury Earthquakes." *Motu Working Paper* 14-08, Motu Economic and Public Policy Research, Wellington.
- Buxton, R.; K.C. Wright; M.C. Daly; L. Timar and D. Mieler. 2014. "Single Infrastructure Failures: Capturing outage information for MERIT *Modelling the Economics of Resilient Infrastructure Tool*." *GNS Science Report* 2014/22.
- Timar, L. and S. Kerr. 2014. "Land-use Intensity and Greenhouse Gas Emissions in the LURNZ Model." *Motu Working Paper* 14-03, Motu Economic and Public Policy Research, Wellington.
- Timar, L.; R. Fabling and A. Grimes. 2013. "Economic Lessons from Christchurch." *Natural Hazards 2012*, Natural Hazards Annual Report, GNS Science Miscellaneous Series 51. Lower Hutt.
- Kerr, S.; S. Anastasiadis; A. Olssen; W. Power; L. Timar and W. Zhang. 2012. "Spatial and Temporal Responses to an Emissions Trading System Covering Agriculture and Forestry: Simulation Results from New Zealand." *Motu Working Paper* 12-10, Motu Economic and Public Policy Research. Wellington.
- Timar, L. 2011. "Rural Land Use and Land Tenure in New Zealand." *Motu Working Paper* 11-13, Motu Economic and Public Policy Research. Wellington.
- Timar, L. 2011. "Modelling Rural Land Use Decisions in New Zealand." *Asymmetric Information*, Newsletter of the New Zealand Association of Economists, Issue No. 41, August.
- Baisden, W.T.; E.D. Keller; L. Timar; D. Smeaton; A. Clark; A. Ausseil; W. Power and W. Zhang. 2010. "New Zealand's Pasture Production in 2020 and 2050." *GNS Science Consultancy Report* 2010/154.
- Zemansky, G.; T. Hong; P. White; L. Timar; S. Song and J. Thorstad. 2010. "Framework for Assessment of Climate Impacts on New Zealand's Hydrological Systems." *GNS Science Report* 2010/57.
- Timar, L. 2008. "Modeling the Anthropogenic Spread of an Aquatic Invasive Species: The case of Zebra Mussels and Transient Recreational Boating in Wisconsin." Doctoral Dissertation. North Carolina State University, Raleigh, NC, USA.

CONFERENCE PRESENTATIONS

- "That sinking feeling: the changing price of disaster risk following an earthquake." Paper presented at the New Zealand Association of Economists (NZAE) conference. Wellington, New Zealand (1 July 2015).

- “That sinking feeling: the changing price of disaster risk following an earthquake.” Paper presented at the Australian Agricultural and Resource Economics Society (AARES) conference. Rotorua, New Zealand (13 February 2015).
- “Modelling the free allocation of nutrient discharge allowances among heterogeneous farmers in the Lake Rotorua catchment.” Paper presented at the Australian Agricultural and Resource Economics Society (AARES) conference. Port Macquarie, Australia (6 February 2014, **Heading West Award**).
- “Farm heterogeneity and the free allocation of nutrient discharge allowances in the Lake Rotorua catchment.” Paper presented at the New Zealand Agricultural and Resource Economics Society (NZARES) conference. Lincoln, New Zealand (30 August 2013).
- “The Land Use in Rural New Zealand project: spatial land use, land-use change and model validation.” Paper presented at the New Zealand Agricultural and Resource Economics Society (NZARES) conference. Lincoln, New Zealand (29 August 2013).
- “Allocation and Cost Sharing in Greenhouse Gas Markets.” Paper presented at the New Zealand Climate Change Conference (NZCCC). Palmerston North, New Zealand (5 June 2013).
- “Allocation and Cost Sharing in Environmental Markets: Heterogeneity and Market Interactions.” Joint presentation with B.L. Yeo in the *Market-Based Instruments for Freshwater Management in New Zealand* mini-symposium at the Australian Agricultural and Resource Economics Society (AARES) conference. Sydney, Australia (6 February 2013).
- “Rural Land Use and Land Tenure in New Zealand.” Paper presented at the annual conference of the European Association of Environmental and Resource Economists (EAERE). Prague, Czech Republic (28 June 2012).
- “What should we do about CO₂? Initial public perceptions of carbon capture and storage (CCS) in New Zealand.” Poster presented at the Cooperative Research Centre for Greenhouse Gas Technologies (CO₂CRC) Research Symposium. Adelaide, Australia (1 December 2011).
- “Socio-Economic Impacts of the Agricultural Emissions Trading Scheme.” Paper presented at the New Zealand Agricultural and Resource Economics Society (NZARES) conference. Nelson, New Zealand (25 August 2011).
- “Māori Land and Rural Land Use in New Zealand.” Paper presented at the New Zealand Association of Economists (NZAE) conference. Wellington, New Zealand (29 June 2011).
- “Modelling Rural Land Use in New Zealand. A Discrete Choice Perspective.” Paper presented at the Australian Agricultural and Resource Economics Society (AARES) conference. Melbourne, Australia (8 February 2011).
- “Spatial Allocation of Land Use Transitions.” Paper presented at the New Zealand Agricultural and Resource Economics Society (NZARES) conference. Nelson, New Zealand (27 August 2010).
- “New Zealand’s Pasture Production in 2020 and 2050.” Paper presented at the New Zealand Agricultural and Resource Economics Society (NZARES) conference. Nelson, New Zealand (26 August 2010).

OTHER PRESENTATIONS

- “The Land Use in Rural New Zealand (LURNZ) model.” Future Landscapes for New Zealand’s Horticultural and Arable Industries Workshop, Palmerston North, New Zealand (7 June 2018).
- “Transitioning to a lower net emissions New Zealand.” Climate Change Ambassador Workshop, Wellington, New Zealand (16 May 2018).
- “Deep dive: the LURNZ model.” Motu Researcher Workshop – Land Sector, Wellington, New Zealand (30 April 2018).
- “Assessing drought impacts.” Motu Researcher Workshop – Land Sector, Wellington, New Zealand (30 April 2018).
- “Land use change: modelling the impacts of markets, policy and climate in LURNZ.” Forest Ecosystem Services Workshop, Havelock, New Zealand (24 May 2017).
- “Modelling the land-use response to climate change: LURNZ simulations for RCP 8.5.” Climate Change Impacts and Implications: Uplands Workshop, Christchurch, New Zealand (4 October 2016).
- “Modelling horticulture changes in LURNZ.” Motu Land and Climate Economics Workshop, Wellington, New Zealand (30 May 2016).
- “That sinking feeling: the changing price of disaster risk following an earthquake.” GNS Science, Lower Hutt, New Zealand (7 July 2015).
- “Land-use responses to pastoral yield changes in the LURNZ model.” Motu Land-use Researchers’ Workshop, Wellington, New Zealand (17 February 2015).
- “Allowance allocation in nutrient markets with heterogeneous farmers: the Lake Rotorua catchment.” Lake Rotorua Catchment Stakeholder Advisory Group meeting, Bay of Plenty Regional Council, Rotorua, New Zealand (13 May 2013).
- “Policy incidence and permit allocation in LURNZ.” Motu Climate Economics Research Workshop, Wellington, New Zealand (5 March 2013).
- “Greenhouse gas emissions in LURNZ.” Motu Climate Economics Research Workshop, Wellington, New Zealand (4 March 2013).
- “Land use in rural New Zealand (LURNZ).” Dairy NZ Sustainable Economics Workshop, Hamilton, New Zealand (12 October 2012).
- “Land tenure and rural land use: insights from a discrete choice model.” Ministry for Primary Industries, Wellington, New Zealand (13 August 2012).
- “Payments for ecosystem services.” GNS Science, Lower Hutt, New Zealand (Avalon: 22 May 2012 and NIC: 28 May 2012).

- “Payments for ecosystem services.” Forest Ecosystem Services Workshop, Wellington, New Zealand (16 May 2012).
- “Whose mitigation is it anyway?” AgDialogue Meeting 9, Wellington, New Zealand (8 May 2012).
- “The impact of the NZETS on local communities: spatially modelling the distribution of GHG liabilities.” Motu Climate Economics Research Workshop, Wellington, New Zealand (20 March 2012).
- “Māori land and rural land use in New Zealand.” Ministry for the Environment, Wellington, New Zealand (3 August 2011).
- “Māori land and rural land use in New Zealand.” Te Puni Kōkiri (Ministry of Māori Development), Wellington, New Zealand (13 July 2011).
- “Māori land and rural land use in New Zealand.” GNS Science, Lower Hutt, New Zealand (5 May 2011).
- “Modelling rural land use in New Zealand: a discrete choice perspective.” EcoClimate Researchers’ Workshop, Wellington, New Zealand (21 February 2011).
- “New Zealand’s pasture production in 2020 and 2050.” EcoClimate Researchers’ Workshop, Wellington, New Zealand (21 February 2011).
- “New Zealand’s pasture production in 2020 and 2050.” Ministry of Agriculture and Forestry Workshop, Wellington, New Zealand (17 August 2010).
- “Emissions trading for forestry and agriculture: policy design and integrated simulations in New Zealand.” Poster presented at the “Transitioning to Sustainable Communities” workshop of the Cornell Center for a Sustainable Future (CCSF). Cornell University, Ithaca, NY, USA (14 June 2010, **CCSF & AIMES YSN Travel Award**).
- “Modeling the human-induced spread of an aquatic invasive: the case of the zebra mussel.” GNS Science, Lower Hutt, New Zealand (15 October 2009).
- “Modeling the human-induced spread of an aquatic invasive: the case of the zebra mussel.” Waikato Management School seminar series. University of Waikato, Hamilton, New Zealand (6 October 2009).
- “Modeling the anthropogenic spread of an aquatic invasive species: the case of zebra mussels and transient recreational boating in Wisconsin.” Center for Environmental and Resource Economic Policy (CEnREP) Colloquium. North Carolina State University, Raleigh, NC, USA (2008).

RESEARCH GRANTS

Natural Hazards Research Platform (2012). “Economic responses to the Canterbury earthquakes: evidence from labour and property markets.” Science leader (\$450,000).

Bay of Plenty Regional Council (2013). “Nutrient discharge allowance allocation in the Lake Rotorua catchment.” Project leader (\$25,213).

AWARDS AND PROFESSIONAL SERVICE

Travel Awards

AARES-AAEA Young Professionals Exchange Program Heading West Award (2013)

Cornell Center for a Sustainable Future & AIMES Young Scholars Network (2010)

Other Awards

Full Graduate Assistantship, North Carolina State University (2001–2008)

NCAA Academic All-American (1999, 2000, 2001)

Full Athletic Scholarship (Track & Field), University of Northern Iowa (1997-2001)

Outstanding Student-Athlete of the Hungarian Republic (1996)

Professional Service

Referee, Environment and Development Economics

Referee, Journal of Agricultural and Resource Economics

External examiner (Master of Commerce Thesis), Victoria University of Wellington

Committee member, New Zealand Agricultural and Resource Economics Society (2010 – 2013)

Session chair, Australian Agricultural and Resource Economics Society Conference (2015)

Session chair, New Zealand Agricultural and Resource Economics Society Conference (2011)