

Curriculum Vitae

Péter Elek

Personal information

First name / Surname **Péter ELEK**
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Homepage <https://sites.google.com/site/peterelekp>
Nationality Hungarian
Date of birth 5th May 1978

Education and training

2010 PhD in Statistics (Applied Mathematics)
Eötvös Loránd University (ELTE), Hungary

- Supervisor: András Zempléni (Department of Probability and Statistics)
- Topic: nonlinear time series analysis and extreme value theory

1996 – 2002 MSc in Mathematics (with specialisation in Statistics)
Eötvös Loránd University (ELTE), Hungary

1997 – 2003 MA in Economics (with specialisation in Finance)
Budapest University of Economics (now Corvinus University)

1999 – 2000 Erasmus scholarship
University of Sheffield, UK

Work experience

2018 – Research Fellow (part-time),
“Lendület” Health and Population Research Group
Institute of Economics, Centre for Economic and Regional Studies
of Hungarian Academy of Sciences (MTA KRTK KTI)

2011 – Assistant Professor
Department of Economics, Eötvös Loránd University (ELTE), Hungary

2011 – Senior econometric / statistical expert in various research / consulting projects
(see below for details)

2015 – 2018 External Lecturer (part-time)
at the Pallas Athene (PADS) Doctoral Program in Economics

2011 – 2014 Consultant (part-time), Ecostat Government Centre for Impact Assessment

2013 – 2014 External Lecturer (part-time), Central European University (CEU), Hungary

2010 – 2012 Researcher (part-time),
Institute of Economics of Hungarian Academy of Sciences

2010 – 2010 Senior Economist and Head of tax forecasting team
Office of the Fiscal Council, Hungary

2009 – 2010 Head of Economic Research Division
Ministry of Finance, Hungary

2005 – 2009 Analyst at the Economic Research Division
Ministry of Finance, Hungary

Research experience

Research interests	microeconometrics, health and labour economics, time series analysis
Publications	journal articles and book chapters in English and Hungarian; see below
Research and consulting	
2018 –	participation in the “Lendület” Health and Population Research Group (IE CERS HAS – MTA KRTK KTI)
2016 – 2018	„Event-level panel data based health policy evaluations” (Hungarian Research and Innovation Office [NKFIH] Grant, senior researcher)
2016	Participation in the evaluation of the Primary Care Development Model Programme funded by the Swiss-Hungarian Cooperation Programme (Simmelweis University Health Services Management Training Centre)
2015 – 2016	Quantitative health economic analyses (Syreon Research Institute)
2011 – 2014	Microsimulation modelling and methodological guidance in impact assessment (SROP 1.1.10. project, Ecostat Government Centre for Impact Assessment)
2012 – 2013	Ex post quantitative evaluation of public health development programmes (Budapest Institute for Policy Analysis)
2010 – 2012	“Employment and wages in the public sector: microeconomic analyses” (Hungarian Scientific Research Fund [OTKA] project, researcher)
2011	Estimation of price elasticities of telecommunication demand based on micro-level data (Magyar Telekom)
2011	Quantitative evaluation of health care measures between 2006 and 2008 (GYEMSZI National Institute for Quality- and Organizational Development in Healthcare and Medicines)
2009	“Analysis of the effects of the black and grey economy on wage statistics” (National Employment Fund [OFA] project, researcher)

Teaching experience

	(in Hungarian if not indicated otherwise)
PhD level	Mathematical Statistics (PADS Doctoral Program)
Master level	Mathematical Statistics (in English) (MA in Economics, CEU) Cross Sectional and Panel Data Econometrics (MA in Economics, ELTE) Time Series Econometrics (MA in Economics, ELTE) Time Series Analysis (MSc in Actuarial and Financial Mathematics, ELTE) Financial Econometrics (part of the course, Corvinus University)
BA level	Introductory Econometrics (in English and Hungarian) (ELTE) Microeconometrics (ELTE) Probability and Statistics (in English) (ELTE)
Other	Statistical methods of impact assessment (Institute for Education Research and Development; Ecostat Government Centre for Impact Assessment)

Grants and awards

2019 –	János Bolyai Research Scholarship of Hungarian Academy of Sciences
2017 – 2018	ÚNKP New National Excellence Program (Új Nemzeti Kiválósági Program)
2014 – 2017	János Bolyai Research Scholarship of Hungarian Academy of Sciences
2016	ELTE award for outstanding activity (ELTE rektori kiválósági különdíj)
2016	Hungarian Health Economics Association (META) international publication prize

Professional service	
Professional organisation	Secretary of the Hungarian Society of Economists (MKE) (2015-2016)
Research evaluation	Opponent for Ph.D. theses at Corvinus University and University of Szeged
Reviewer for journals	Social Science and Medicine, Journal of Statistical Planning and Inference, Acta Oeconomica, Hungarian Statistical Review, Közgazdasági Szemle, Statisztikai Szemle
Book translation	Blanchard O: „Economics of Post-Communist Transition” (to Hungarian)
Personal skills	
Mother tongue	Hungarian
Other languages	English (proficient); German (intermediate)
Computer skills	Stata, R, Eviews, Matlab, SPSS, MS Office

List of publications

Journal articles in English

- Bíró A, Elek P. 2019. The effect of primary care availability on antibiotic consumption in Hungary: a population based panel study using unfilled general practices. **BMJ Open** 9, e028233.
- Elek P, Molnár T, Váradi B. 2019. The closer the better: does better access to outpatient care prevent hospitalization? **The European Journal of Health Economics** 20(6), 801-817.
- Elek P, Köllő J. 2019. Eliciting permanent and transitory undeclared work from matched administrative and survey data. **Empirica** 46(3), 547-576.
- Bíró A, Elek P. 2018. How does retirement affect healthcare expenditures? Evidence from a change in the retirement age. **Health Economics** 27(5), 803-818.
- O'Donoghue C, Li J, Cserhádi I, Elek P, Keresztély T, Takács T. 2018. The distributional impact of VAT reduction for food in Hungary: Results from a Hungarian microsimulation model. **International Journal of Microsimulation** 11(3), 2-38.
- Elek P, Harsányi A, Zelei T, Csetneki K, Kaló Z. 2017. Policy objective of generic medicines from the investment perspective: the case of clopidogrel. **Health Policy** 121(5), 558-565.
- Elek P, Takács E, Merész G, Kaló Z. 2017. Implication of external price referencing and parallel trade on pharmaceutical expenditure: indirect evidence from lower-income European countries. **Health Policy and Planning** 32(3), 349-358.
- Elek P, Váradi B, Varga M. 2015. Effects of geographical accessibility on the use of outpatient care services: quasi-experimental evidence from panel count data. **Health Economics** 24(9), 1131-1146.
- Elek P, Köllő J, Reizer B, Szabó P A. 2012. Detecting wage under-reporting using a double hurdle model. **Research in Labor Economics** 34, 135-166., Emerald.
- Elek P, Márkus L. 2010. Tail behaviour of β -TARCH processes. **Statistics and Probability Letters** 80(23-24), 1758-1763.
- Elek P, Zempléni A. 2009. Modelling extremes of time-dependent data by Markov-switching structures. **Journal of Statistical Planning and Inference** 139(6), 1953-1967.
- Bíró A, Elek P, Vincze J. 2008. Model-based sensitivity analysis of the Hungarian economy to macroeconomic shocks and uncertainties. **Acta Oeconomica** 58(4), 367-401.

Arató M, Bozsó D, Elek P, Zempléni A. 2008. Forecasting and simulating mortality tables. **Mathematical and Computer Modelling** 49(3-4), 805-813.

Elek P, Zempléni A. 2008. Tail behaviour and extremes of two-state Markov-switching autoregressive models. **Computers and Mathematics with Applications** 55(12), 2839-2855.

Elek P, Márkus L. 2008. A light-tailed conditionally heteroscedastic model with applications to the analysis of river flows. **Journal of Time Series Analysis** 29, 14-36.

Vasas K, Elek P, Márkus L. 2005. A two-state autoregressive regime switching model with applications to river flow analysis. **Journal of Statistical Planning and Inference** 137(10), 3113-3126.

Elek P, Márkus L. 2004. A long range dependent model with nonlinear innovations for simulating daily river flows. **Natural Hazards and Earth Systems Sciences** 4, 277-283.

Journal articles in Hungarian

Sinkó E, Dózsa K, Elek P, Merész G, Kiss N T, Gaál P. 2017. "Az egészségügy forrásainak felhasználásával népegészségügyi fókuszú alapellátás-szervezési modellprogram Virtuális Ellátó Központ támogatásával" című program egészségpolitikai értékelése. (Health policy evaluation of a primary care model program.) **Népegészségügy** 95(1) 86-94.

Elek P, Kiss N T, Váradi B. 2015. A kistérségi járóbeteg-szakellátási kapacitások fejlesztésének hatásai. (Effects of development of outpatient care services in Hungarian micro-regions.) **Egészségügyi Gazdasági Szemle** 53(1) 28-38.

Elek P, Lőrincz L. 2015. Az effektív társasági adókulcs rugalmassága Magyarországon a 2009-2011 közötti adókulcs-csökkentés alapján. (The elasticity of the effective corporate tax rate in Hungary: evidence from the tax cut between 2009 and 2011.) **Közgazdasági Szemle** 62(1), 27-47.

Elek P, Szabó P A. 2013. A közszférából történő munkaerő-kiáramlás elemzése Magyarországon. (Labour outflow from the public sector in Hungary.) **Közgazdasági Szemle** 60(5), 601-628.

Mihalicza P, Belicza É, Elek P, Harangozó J, Adamovich K, Szádóczky E. 2012. Az egészségügyi reformok hatása az ellátás eredményességére megfelelőségére időszerűségére és a hozzáférésre. (Effects of public health reforms on the effectiveness appropriateness timeliness and accessibility of health care.) **Egészségügyi Gazdasági Szemle** 50(3) 13-20.

Elek P, Kiss Á. 2010. Az ingatlanadó a magyar adórendszerben. Elméleti megfontolások és mikroszimulációs elemzés. (The property tax in the Hungarian taxation system. Theoretical considerations and microsimulation analysis.) **Közgazdasági Szemle** 57(5), 389-411.

Elek P, Scharle Á. 2008. Optimális adózás elméletek és az empirikus mérés lehetőségei. (Theories of optimal taxation and alternatives for empirical measurement.) **Pénzügyi Szemle** 53(3), 442-450.

Bíró A, Elek P, Vincze J. 2007. Szimulációk és érzékenységvizsgálatok a magyar gazdaság egy közepméretű makromodelljével. (Simulations and sensitivity analyses with a medium-sized macro model of the Hungarian economy.) **Közgazdasági Szemle** 54(9), 774-799.

Bíró A, Elek P, Vincze J. 2007. A magyar gazdaság külső sokkokra való érzékenysége és korrekciós mechanizmusok. (The sensitivity of the Hungarian economy to outside shocks and correction mechanisms.) **Külgazdaság** 51(5-6), 4-20.

Book chapters

Bíró A, Branyiczki R, Elek P. 2019. Health and labour market participation among women. In: **The Hungarian Labour Market Review and Analysis 2018** (ed. Fazekas K, Szabó-Morvai Á.) p. 141-150. Centre for Economic and Regional Studies, Hungarian Academy of Sciences.

Elek P, Szabó P A. 2014. Labour outflow from the public sector in Hungary. In: **The Hungarian Labour Market Review and Analysis 2014** (ed. Fazekas K, Neumann L.) p. 91-101. Centre for Economic and Regional Studies, Hungarian Academy of Sciences.

Benedek D, Elek P, Köllő J. 2013. Tax avoidance, tax evasion, black and grey employment. In: **The Hungarian Labour Market Review and Analysis 2013** (ed. Fazekas K, Benczúr P, Telegdy Á.) p. 161-184. Institute of Economics, Hungarian Academy of Sciences.

Elek P, Scharle Á. 2011. Crisis measures in the labour market. In: **The Hungarian Labour Market Review and Analysis 2011** (ed. Fazekas K, Molnár Gy.) p. 69-71. Institute of Economics, Hungarian Academy of Sciences.

Elek P, Scharle Á, Szabó B, Szabó P A. 2009. Measuring undeclared employment in Hungary. In: Hidden Economy – Undeclared Employment and Non-Reported Income (ed. Semjén A, Tóth I J.). **KTI Könyvek** 11., p. 84-102. Institute of Economics, Hungarian Academy of Sciences (in Hungarian).

Some working papers

Bíró A, Elek P. 2019. Job loss, disability insurance and health expenditures. MTA KTI / HAS IE Discussion Paper 2019/8.

Elek P, Scharle Á, Szabó B, Szabó P A. 2009. A bérekhez kapcsolódó adóeltitkolás Magyarországon. (Wage-related tax evasion in Hungary.) Közpénzügyi füzetek 23.

Bakos P, Bíró A, Elek P, Scharle Á. 2008. Efficiency of the Hungarian taxation system. Working Papers in Public Finance 21.

Bíró A, Elek P, Vincze J. 2007. The PM-KTI macroeconomic model: relationships and simulations. Working Papers in Public Finance 19.