

## Curriculum Vitae

## Péter Elek

### Personal information

First name / Surname

**Péter ELEK**

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Homepage

<https://sites.google.com/site/peterelekp>

### Education and training

- 2010 PhD in Statistics, Eötvös Loránd University (ELTE), Hungary
- 1996 – 2002 MSc in Mathematics, Eötvös Loránd University (ELTE), Hungary
- 1997 – 2003 MA in Economics (with specialisation in Finance)  
Budapest University of Economics (now Corvinus University of Budapest)
- 1999 – 2000 Erasmus scholarship, University of Sheffield, UK

### Work experience

- 2018 – Research Fellow (part-time), “Lendület” Health and Population Research Group, Centre for Economic and Regional Studies, Hungary (CERS / KRTK)
- 2011 – Assistant Professor  
Department of Economics, Eötvös Loránd University (ELTE), Hungary
- 2011 – Senior econometric / statistical expert in various research / consulting projects
- 2013 – 2018 External Lecturer (part-time) at various universities
- 2011 – 2014 Consultant (part-time), Ecostat Government Centre for Impact Assessment
- 2010 – 2012 Researcher (part-time), Institute of Economics of HAS
- 2010 – 2010 Senior Economist and Head of Unit, 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 see below

### Research and consulting

- 2018 – Member of the “Lendület” Health and Population Research Group at CERS
- 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 Swiss-Hungarian Primary Care Development Model Programme (Simmelweis University)
- 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)
- 2010 – 2012 “Employment and wages in the public sector: microeconomic analyses”  
(Hungarian Scientific Research Fund [OTKA] project, researcher)
- 2011 Estimation of price elasticity of telecommunication demand (Magyar Telekom)
- 2011 Quantitative evaluation of health care measures (GYEMSZI)

## Teaching experience

PhD level	
2015 – 2018	Mathematical Statistics (PADS Doctoral Program, in Hungarian)
Master level	
2010 –	Time Series (ELTE Actuarial and Financial Mathematics, in Hungarian)
2012 – 2018	Econometrics of Cross Section and Panel Data, Time Series Econometrics (ELTE, in Hungarian)
2013 – 2014	Mathematical Statistics (CEU)
2004 – 2008	Financial Econometrics (Corvinus University of Budapest, in Hungarian)
BA level	
2019 –	Statistics and Probability, Introductory Econometrics (ELTE)
2009 –	Introductory Econometrics, Microeconometrics (ELTE, in Hungarian)
Other	
2012 – 2013	Statistical methods of impact assessment (Institute for Education Research and Development; Ecostat Government Centre for Impact Assessment)

## Grants and awards

2019 – 2022	János Bolyai Research Scholarship of Hungarian Academy of Sciences
2019 – 2020	ÚNKP New National Excellence Program (Új Nemzeti Kiválósági Program)
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	
2015 – 2019	Member of the Senate of ELTE
2015 – 2016	Secretary of the Hungarian Society of Economists (MKE)
Research evaluation	Opponent for Ph.D. theses and member of Ph.D. committees (Corvinus University, Central European University, 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. 2020. Caesarean delivery and the use of antidepressants. **European Journal of Public Health** ckaa047.

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  $\beta$ -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 közzférából 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).

## Conference proceedings

Mihalicza P, Harangozó J, Elek P. 2013. How did the 2007 hospital reform affect the quality of the Hungarian psychiatric and addictology care? *Journal of Mental Health Policy and Economics* 16(Supplement 1), S25. Eleventh Workshop on Costs and Assessment in Psychiatry 'Mental Health Policy, Economics and Health Care Reforms'. Venezia, Olaszország.

### **Some working papers and research reports**

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.