# Curriculum Vita VALENTIN ZELENYUK

Last Update: April 2019

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**Personal** Born: 1974, Ukraine (at that time: "Ukrainian Soviet Socialist Republic, USSR").

#### Education

1999-2002 **Ph.D.** Economics, Oregon State University, USA;

Field: Industrial Organization, Productivity and Efficiency Analysis.

**Special Interests**: Applied Econometrics, Productivity and Efficiency Analysis Transition Economics. Environmental & Resource Economics:

Major Professors: Rolf Färe, Shawna Grosskopf.

1997-1999 **M.S.**, *Economics*, Oregon State University, USA;

Fields: Productivity and Efficiency Analysis, Industrial Organization;

Major Professors: Rolf Färe, Shawna Grosskopf.

1996-1997 *ABD, Economics*, Donetsk State Institute of Commerce, Ukraine;

Fields: Mathematical Methods in Economics; Industrial Organization

*Major Professor:* Lidia Omelyanovich.

1991-1996 Specialist (~MSc), Economics & Management,

Donetsk State Inst. of Commerce, Ukraine Honor: summa cum laude ("Red Diplom"); Major Professor: Alimjan Sadekov.

#### **Main Current Research Interests**

- Productivity and Efficiency Analysis (theory and applications)
- Econometrics & Business Analytics (non-parametric, parametric, theory & applications)
- Operations Research (data envelopment analysis, optimization)
- Performance of Hospitals and Healthcare Analytics
- Performance of Banks and Banking Analytics
- Measurement of economic growth (developed, developing and transition countries)
- Forecasting

## **Summary of Main Expertise**

- 1. Research (since 2001) in
  - Efficiency and Productivity Analysis: Theory and Applications
  - Econometrics (Parametric and Non-parametric; Theory and Applications)
  - Growth and Development: Empirics,
  - Economies in Transition:
  - Industrial Organization;
- 2. Teaching Economics (since 1999, in English).
  - Teaching Evaluations are usually higher than the departmental average.
- 3. Economic Policy Research (since 2005)
- 4. Manuscripts Review/Refereeing/Editing (since 1998)
- 5. Team and Project Management (since 1992).

## **Current Employment and Affiliations**

**ARC Future Fellow** (Level 3, for Nov. 2017- Oct. 2021). Research only position. Funded by ARC and hosted at the School of Economics of The University of Queensland, Australia (and maintaining the title of Associate Professor in Econometrics).<sup>1</sup>

**Co-Founder and Executive Member of the Board of Directors of ISEPA** (International Society for Efficiency and Productivity Analysis, from Feb. 2018). This Society aims to unite most of the researchers in the field, starting from the inaugural general meeting in June 2018).

**Elected member** in the Conference on Research in Income and Wealth (**CRIW**) of the National Bureau of Economic Research (**NBER**, <a href="https://www.nber.org/CRIW/">https://www.nber.org/CRIW/</a>). Since January 2019. <sup>2</sup>

**Associate Editor** for *Journal of Productivity Analysis* (since July 2013). http://www.springer.com/economics/microeconomics/journal/11123/PSE?detailsPage=editorialBoard

**Co-Editor** <u>Data Envelopment Analysis Journal</u> (since Jan 2016) http://www.nowpublishers.com/Journal/EditorialBoard/DEA

#### **Previous Employments and Affiliations**

**Nov. 2010 – Oct. 2017:** Associate Professor in Econometrics, School of Economics, The University of Queensland, Australia (on hold due to ARC Future Fellowship).

**Nov 2015 – June 2018:** Director of CEPA (Centre for Efficiency and Productivity Analysis), School of Economics, The University of Queensland, Australia.

**Jan 2015 – Dec 2015:** Research Director and Chair of Research and RHD Committee for the School of Economics at The University of Queensland, Australia

**July 2012 - July 2014:** Chair of Scientific Committee and Co-Chair of the Organizing Committee for 2014 Asia Pacific Productivity Conference (APPC2014).

**2008 – 2012:** Collaboration on performance analysis project for Central Bank of Luxembourg and University of Luxemburg (project 'Perfilux')

**January 2010-Oct 2010:** Associate Professor at Kyiv School of Economics, KSE (former <u>EERC</u>), Kyiv, Ukraine. (Assistant Professor since 2002-2009).

**Nov 2009-Oct 2010:** Adjunct Professor of University of Houston, USA (joint MA in Economics program with Kyiv School of Economics).

**Sep 2005 – Oct 2010:** Senior Economist at Kyiv Economics Institute, (affiliate of Stockholm Institute of Transition Economics (SITE) at Stockholm School of Economics, Sweden).

<sup>&</sup>lt;sup>1</sup> "The [ARC] *Future Fellowships* scheme supports research in areas of critical national importance by giving outstanding researchers incentives to conduct their research in Australia. The aim of the *Future Fellowships* scheme is to attract and retain the best and brightest mid-career researchers..." <a href="http://www.arc.gov.au/future-fellowships">http://www.arc.gov.au/future-fellowships</a>.

<sup>2</sup> "... [CRIW] was founded in 1936 to advance the cause of measurement in economics... Membership in the CRIW is by election and is based on a significant contribution to research in income and wealth, a sustained interest in research in this area, and continuing participation in CRIW activities..." <a href="https://www.nber.org/CRIW/">https://www.nber.org/CRIW/</a>

**March 2007 - Feb 2008:** Chief Economist-Strategist at Millennium Capital, Ukraine. Headed group preparing Millennium Monthly Strategy (suggested best and worst industries and stocks for the coming month, macroeconomic analysis and forecasting). Headed group on equity research of financial companies (banks, insurance companies, etc.)

**Nov 2004 – Feb 2007:** Director of UPEG (Ukrainian Productivity and Efficiency Group), at EROC/EERC, Kyiv (Kiev), Ukraine. Research on productivity analysis of firms and industries.

**Sep 2004 - Aug 2005:** Post-Doctoral Researcher Fellow, *Institut de Statistique*, Université Catholique de Louvain, Belgium. Research in econometrics of productivity & efficiency analysis.

**July 2002-Dec 2009:** Assistant Professor at Kyiv School of Economics, KSE (former <u>EERC</u>), Kyiv, Ukraine.

**Sep 1997 – June 2002:** Oregon State University, USA. <u>Graduate Teaching Assistant.</u> Responsibility: *Teaching, Research* with Rolf Färe and Shawna Grosskopf

#### Other Professional Experience & Short-term Engagements

**September – October 2017** Consulting project for the Netherlands Authority for Consumers and Markets (Netherlands), via Economic Insights: Topics in efficiency benchmarking of energy networks: Choosing the model and explaining the results

**June – August 2017** Consulting project for the Netherlands Authority for Consumers and Markets (Netherlands), via Economic Insights: Topics in efficiency benchmarking of energy networks: Selecting cost drivers

**Feb-May 2015** Consulting project for the Port of Brisbane (Australia) via Uniquest: Analysis and Forecasting of Imports of Motor Vehicles through the Port of Brisbane.

**Feb-May 2014** Consulting project for the Port of Brisbane (Australia) via Uniquest: Analysis and Forecasting of Container Throughput in the Port of Brisbane.

**Nov 2009 – Feb 2010:** Member of the Commission of Independent Experts for 2010 Reforms for the new President of Ukraine (organized and chaired by Anders Aslund, USA).

**Nov 2008 – Aug 2010:** CEO, co-founder and Managing Partner, Advisors, LLC, Ukraine. General team management, supervising statistical analysis and research for strategy and financial consulting.

**March 2008 – Nov 2008:** Consulting on Strategy, Research and Business Development for CCG (Delta Bank Group, Ukraine): Establishing and supervising research & analytics department for statistical analysis on probability of credit defaults and probability models for credit management strategies, optimization of business processes.

**Sep 1996 – Dec 1996:** TACIS Project (European Union Program in Ukraine), <u>Junior Expert.</u> Responsibility: market research, sociological tests on consumer behavior, financial analysis, production cost calculation for business plan.

**July 1995**: Joint Stock Company "Dary Sadov", Ukraine, <u>Economist</u> (Summer Internship). Responsibility: Economic and financial analysis.

**July 1994**: Joint Stock Company "Dary Sadov", Ukraine, <u>Economist</u> (Summer Internship). Responsibility: Economic and financial analysis.

**1992-1995:** AIESEC-Donetsk, Ukraine, <u>President</u> (1994, 1995), <u>Vice-President for Marketing</u> (1993) <u>Fundraising coordinator</u> (1992).

**July 1993:** ACKET 7\*7 (Assn. of Satellite TV), Ukraine. <u>Researcher</u>, (Summer Internship) Responsibility: team management, sociological tests, marketing research.

#### **Selected Grants**

- ARC Future Fellow Award (2017-2021, FT170100401, \$944,000.00): Improving productivity: theory and application to Australian hospitals.
- **UQ Capacity Building Grant** (associated with ARC Future Fellow Award FT170100401), 2017-2021, \$200,000.00): Improving productivity: theory and application to Australian hospitals.
- "High Quality Sabbatical Visitors/Distinguished Scholars Fellowship" from Hong Kong Baptist University, Hong Kong for 2016, with research visit during 10/01/2016-7/05/2016. (Awarded by "Research Committee's Matching Scheme for Inviting High Quality Sabbatical Visitors/Distinguished Scholars 2014/15").
- ARC Discovery Projects Grant 2013 (DP130101022). Role: Chief Investigator. Partner investigators: Byeong Park and Leopold Simar. Theme: "Improving Likelihood Estimators: Theory and Applications to Analyzing Productivity and Efficiency and Forecasting of Probability of Economic Recession."
- Australian Institute for Business and Economics (AIBE) (\$20,000 in 2015)
- Sponsoring funds of over \$34,000 for organizing the Asia Pacific Productivity Conference, APPC2014 (from the UQ School of Economics, Reserve Bank of Australia, Australian Productivity Commission, New Zealand Productivity Commission, AIBE, etc.), where I served as the Chair of Scientific Committee.

## Memberships

The Econometrics Society (International), Economic Society of Australia (QLD), Western Economic Association (International).

#### **Short Research Visits**

| 2018 | Hefei University of Technology, China (August, 2018).                    |
|------|--|
| 2018 | Universite Catholique de Louvain, Institute of Statistics (June, 2018).  |
| 2018 | Universite Catholique de Louvain, Institute of Statistics (April, 2018). |
| 2018 | University of Miami, Dep. Of Economics (June, 2018).                     |
| 2018 | University of Miami, Dep. Of Economics (March, 2018).                    |

| 2017 | Universite Catholique de Louvain, Institute of Statistics (May-June, 2017).                                      |
|------|--|
| 2017 | Hong Kong Baptist University, Dep. Of Economics (July, 2017).  |
| 2016 | Universite Catholique de Louvain, Institute of Statistics (August, 2016).  |
| 2016 | University of Miami, Dep. Of Economics (May-June, 2016).   |
| 2016 | Universite Catholique de Louvain, Institute of Statistics (May, 2016).   |
| 2016 | Hong Kong Baptist University, Dep. Of Economics (Jan-May, 2016).   |
| 2015 | Universite Catholique de Louvain, Institute of Statistics (June, 2015).  |
| 2015 | University of Salento, Lecce, Dep. Of Economics (June 2015).   |
| 2013 | University Catholique de Louvain, Institute of Statistics (June, 2013).  |
| 2012 | University Catholique de Louvain, Institute of Statistics (August, 2012).  |
| 2011 | <b>Hong Kong Baptist University</b> , Department of Economics/School of Business, Hong Kong, China (July, 2011). |
| 2011 | University Catholique de Louvain, Institute of Statistics (August, 2011).  |
| 2010 | University Catholique de Louvain, Institute of Statistics (August, 2010).  |
| 2010 | Oregon State University, Department of Economics (June, 2010).   |
| 2009 | University Catholique de Louvain, Institute of Statistics (October, 2009).                                       |
| 2009 | Central Bank of Luxembourg (July, 2009)  |
| 2009 | University of Luxemburg (July, 2009)   |
| 2009 | University Catholique de Louvain, Institute of Statistics (June, 2009).  |
| 2006 | <b>Kennan Institute</b> , Woodrow-Wilson International Center for Scholars, Washington DC, USA (July, 2006).     |
| 2006 | Rice University, Dept. of Economics, Houston, Texas, USA (March, 2006).  |
| 2006 | University Catholique de Louvain, Institute of Statistics, (January, 2006).                                      |
| 2005 | <b>Hong Kong Baptist University</b> , Department of Economics/School of Business, Hong Kong, China (Jan. 2005).  |
| 2004 | University Catholique de Louvain, Institute of Statistics, (March, 2004).  |
| 2004 | <b>Harvard University</b> , The Davis Center for Russian and Eurasian Studies, (Jan-Feb, 2004).                  |

- IAMO (Institute of Agricultural Development in Central and Eastern Europe), Halle (Saale), Germany (Nov. 2003).
   University Catholique de Louvain, Institute of Statistics, (Aug. 2003),
   IAMO (Institute of Agricultural Development in Central and Eastern Europe), Halle (Saale), Germany (Jul, 2003).
- 2003 University Catholique de Louvain, *Institute of Statistics*, (Feb. 2003),

### **Teaching Experience (In English)**

- 1. Volunteered to organize and co-teach part of intensive course (through CEPA of School of Economics/UQ) on Performance Analysis via Network DEA: Theory and Practice (26-28 September 2018)
- 2. Special Topics in Econometrics-Module 1: Performance Analysis (ECON6370/7370; PhD, Honours and Master students), The University of Queensland, Australia. 2014-2017.
- 3. Special Topics in Econometrics-Module 2: Nonparametric Econometrics (ECON6370/7370; PhD, Honours and Master students), The University of Queensland, Australia. 2014-2017.
- 4. Statistical Theory for Economists (advanced undergrdauate, 2011-2013), The University of Queensland, Australia.
- 5. Introduction to Econometrics (ECON2300 and ECON7310; master students and 2<sup>nd</sup> year undergraduate, 2011-2015), About 600 students. The University of Queensland, Australia.
- 6. Advanced Econometrics (Non-parametric Econometrics, (2005-10), Kyiv School of Economics (KSE / EERC), Kiev, Ukraine.
- 7. Advanced Microeconomics (Poduction Theory and Econometric Applications, 2004/5/6), EERC-Kiev, Ukraine.
- 8. Industrial Organization, (graduate, 2002/3/4/6), EERC, Ukraine.
- 9. "Efficiency Analysis: Basic Theory and Recent Developments," Keynote Lecture at the Workshop in IAMO, Halle (Saale), Germany (March 2004).
- 10. Poductivity and Efficiency Analysis (advanced, 2002-9), EERC, Ukraine.
- 11. Poductivity Analysis (2009) Belarussian State University and Belarussian State Institute of Informatics and Radioelectronics.
- 12. Macroeconomics for Business 2009) University of Grodno, Belarussian State Economics University.
- 13. Microeconomic Theory (graduate, 2002-3), EERC, Ukraine.
- 14. Principles of *Macroeconomics*, Instructor (2001-2002), Oregon State University, USA

- 15. Principles of *Microeconomics* (undergraduate), Instructor (2000-2002), Oregon State University, USA.
- 16. Intermediate *Microeconomics* (upper undergraduate), Teaching Assistant, (1999-2000), Oregon State University, USA.
- 17. *Productivity Analysis* (Master and upper undergraduate), Teaching Assistant, (2000) Oregon State University, USA.

#### **Books**

"Measurement of Productivity and Efficiency: Theory and Practice" book co-authored with Robin Sickles, published by Cambridge University Press (2019).

Currently, this appears to be the most comprehensive advanced textbook in the field (oriented for PhD students and researchers), consisting of 17 chapters (covering advanced production theory including aggregation theory for production analysis, index numbers, functional forms, activity analysis, data envelopments analysis, free disposal hull analysis and statistical analysis for them, including bootstrap, as well as stochastic frontier analysis (cross-section, panel, parametric, semi-parametric, non-parametric, spatial and network analysis), section on major data sources and software for the field): about 270,000 words, 53 figures, ~635pages).<sup>3</sup>

"Factors of Economic Growth in Ukraine and Neighboring Countries," co-Editor (with Wasyl Gorbachuk), 2004, American Councils, Alt-Press, Kiev, ISBN 966-542-243-X.

#### **Selected Publications in Journals**

Summary as of 31 March 2019: 20 of A\*, 20 of A, 8 of B, 1 of C, 1 unranked (NB: As a rule, authors in all papers were listed alphabetically, except in 1 paper)

- 1. "Combining the Virtues of Stochastic Frontier and Data Envelopment Analysis" with Chris Parmeter, accepted at *Operations Research, forthcoming.* (A\* by ABDC2013)
- "Forecasting of Recessions via Dynamic Probit for Time Series: Replication and Extension of Kauppi and Saikkonen (2008)" with Byeong U. Park and Léopold Simar (2019), <u>Empirical</u> <u>Economics</u>, forthcoming. (A by ABDC2013)
- 3. "On Luenberger Input, Output and Productivity Indicators," with Rolf Färe (2019). *Economics Letters*, 179, pp.72-74. https://doi.org/10.1016/j.econlet.2019.03.024 (A by ABDC2013)
- 4. "Weak disposability in nonparametric production analysis: A new taxonomy of reference technology sets" with Duc Manh Pham (2019) <u>European Journal of Operational Research</u> 271:1, <a href="https://doi.org/10.1016/j.ejor.2018.09.019">https://doi.org/10.1016/j.ejor.2018.09.019</a> (A\* by ABDC2013)

<sup>&</sup>lt;sup>3</sup> The book received endorsements (some on the back cover and some on the publisher's website) from top experts in the field, including Erwin Diewert (Univ. of British Columbia), William Greene (NYU), Dale Jorgenson (Harvard), Knox Lovell (UQ), Prasada Rao (UQ), Peter Schmidt (Michigan State Univ.), H. Pyo (Seoul National Uni.), Leopold Simar (Univ. Catholique de Louvain,) Rolf Fare & Shawna Grosskopf (Oregon State Univ.).

<sup>&</sup>lt;sup>4</sup> This journal is in the list of Financial Times top 50 journals.

- 5. "A Unifying Framework for Farrell Efficiency Measurement Coherent with Profit-maximizing Principle" with Rolf Färe, Xinju He, and Sungko Li, *forthcoming* at <u>Operations Research https://doi.org/10.1287/opre.2018.1770.5 (A\* by ABDC2013)</u>
- "Data envelopment analysis, truncated regression and double-bootstrap for panel data with application to Chinese banking," with Kai Du, Andrew C. Worthington, <u>European Journal of</u> <u>Operational Research</u> 265:2, 2018, pp. 748-764, <a href="https://doi.org/10.1016/j.ejor.2017.08.005">https://doi.org/10.1016/j.ejor.2017.08.005</a>. (A\* by ABDC2013)
- 7. "Central Limit Theorems for Aggregate Efficiency" with Leopold Simar, <u>Operations Research</u> (2018), 166:1, pp.139-149. <a href="https://doi.org/10.1287/opre.2017.1655">https://doi.org/10.1287/opre.2017.1655</a> (A\* by ABDC2013)
- 8. "Measuring efficiency of Vietnam commercial banks in the presence of bad outputs: An application of slack-based directional distance function," with Duc Manh Pham (2018) <u>Empirical Economics</u>, 54, pp. 153-187. doi: 10.1007/s00181-017-1232-7. (A by ABDC2013)
- "Nonparametric Least Squares Methods for Stochastic Frontier Models," (2017) with Leopold Simar and Ingrid Van Keilegom, <u>Journal of Productivity Analysis</u> 47:3, 189-204. (A by ABDC2013)
- 10. "Introduction to the APPC2014 special issue," with Antonio Peyrache (2017), *Journal of Productivity Analysis*, 47 3: 185-187. doi:10.1007/s11123-017-0506-6 (A by ABDC2013)
- 11. "Nonparametric Estimation of Dynamic Discrete Choice Models for Time Series Data" with Byeong U. Park and Léopold Simar (2017) <u>Computational Statistics and Data Analysis</u> 108, pp.97-120 (doi: 10.1016/j.csda.2016.10.024) (A by ABDC2013)
- 12. "How relevant is the choice of risk management control variable to non-parametric bank profit efficiency analysis? The case of South Korean banks" (2017) with Richard Simper, Maximilian J. B. Hall, WenBin Liu, Zhongbao Zhou; <u>Annals of Operations Research</u> 250:1, pp. 105–127 (doi: 10.1007/s10479-015-1946-x) (A by ABDC2013)
- 13. "Cost decompositions and the efficient subset" (2016) with Rolf Färe, Hirofumi Fukuyama, Shawna Grosskopf; <u>OMEGA: The International Journal of Management Science</u> 62, pp.123-130 (doi:10.1016/j.omega.2015.09.004) (A\* by ABDC2013)
- 14. "Performance of Hospital Services in Ontario: DEA with Truncated Regression Approach," (2016) with Hedayet Chowdhury; <u>OMEGA: The International Journal of Management Science</u> 63, pp.111-122 (doi:10.1016/j.omega.2015.10.007) (A\* by ABDC2013)
- 15. "Generalized nonparametric smoothing with mixed discrete and continuous data" (2016) with Degui Li and Leopold Simar, <u>Computational Statistics and Data Analysis</u> 100, pp.424-444, (10.1016/j.csda.2014.06.003). (A by ABDC2013)
- 16. "Foreign bank diversification and efficiency prior to and during the financial crisis: Does one business model fit all?" (2015), with Curi, C., Lozano-Vivas, A., <u>Journal of Banking & Finance</u> 61, S1, p.S22-S35 (http://dx.doi.org/10.1016/j.jbankfin.2015.04.019) (A\* by ABDC2013)

<sup>&</sup>lt;sup>5</sup> This journal is in the list of Financial Times top 50 journals.

<sup>&</sup>lt;sup>6</sup> This journal is in the list of Financial Times top 50 journals.

- 17. "Decomposing profit efficiency using a slack-based directional distance function," (2016) with Rolf Färe, Hirofumi Fukuyama, Shawna Grosskopf; <u>European Journal of Operational Research</u> 247:1, pp. 335-337, <a href="http://dx.doi.org/10.1016/j.ejor.2015.05.047">http://dx.doi.org/10.1016/j.ejor.2015.05.047</a>. (A\* by ABDC2013)
- 18. Zelenyuk, V. (2015) "Aggregation of Scale Efficiency," *European Journal of Operational Research* 240:1, pp.269-277. (A\* by ABDC2013)
- 19. Färe, R. and Zelenyuk, V. (2015) "Pricing of decision-making units under non-constant returns to scale" *Journal of the Operational Research Society* 66, 172-173. (A by ABDC2013)
- 20. "Categorical data in local maximum likelihood: theory and applications to productivity analysis" with Byeong Park & Léopold Simar (2015), *Journal of Productivity Analysis* 43:2, pp. 199-214. <a href="http://dx.doi.org/10.1007/s11123-014-0394-y">http://dx.doi.org/10.1007/s11123-014-0394-y</a> (A by ABDC2013)
- 21. "Testing Significance of Contributions in Growth Accounting, with Application to Testing ICT impact on Labor Productivity of Developed Countries" (2014) *International Journal of Business and Economics* 13:2, pp. 115-126. (B by ABDC2013)
- 22. "Directional vs. Shephard's distance functions" (2014) <u>Optimization Letters</u> 8:8, pp. 2185-2189, DOI 10.1007/s11590-014-0726-x. (Unranked by ABDC; decent applied math journal)
- 23. "Aggregation of Malmquist productivity indexes allowing for reallocation of resources" with Andreas Mayer (2014) *European Journal of Operational Research* 238:3, pp. 774–785 (A\* by ABDC2013)
- 24. "Analysis of productivity, efficiency and technological changes in hospital services in Ontario: How does case-mix matter?" with H. Chowdhury, A. Laporte and W. Wodchis, (2014) International Journal of Production Economics 150, pp. 74-82. (A\* by ABDC2013)
- 25. "Scale efficiency and homotheticity: equivalence of primal and dual measures" (2014) <u>Journal of Productivity Analysis</u> 42:1, pp. 15-24 (10.1007/s11123-013-0361-z). (A by ABDC2013)
- 26. "A Scale Elasticity Measure for Directional Distance Function and its Dual: Theory and DEA Estimation" (2013) *European Journal of Operational Research* 228:3, pp. 592-600. (A\* by ABDC2013)
- 27. "A note on equivalences in measuring returns to scale" (2013) <u>International Journal of Business and Economics</u> 12:1, pp. 85-89. (B by ABDC2013)
- 28. "Is foreign-bank efficiency in financial centers driven by home-country characteristics?" with Claudia Curi, Paolo Guarda, Ana Lozano-Vivas (2013) *Journal of Productivity Analysis* 40, pp.367-385. (A by ABDC2013)
- 29. "Aggregation of scale elasticities across firms" with Rolf Fare (2012), *Applied Economics Letters* 19, pp. 1593-1597. (B by ABDC2013)
- 30. "Stochastic FDH/DEA estimators for Frontier Analysis" with Leopold Simar (2011) *Journal of Productivity Analysis* **36**:1, pp. 1-20. (A by ABDC2013)
- 31. "Aggregation of Economic Growth Rates and of its Sources," (2011) <u>European Journal of Operational Research</u> **212**, pp. 190–198. (A\* by ABDC2013)

- 32. "Power of Significance Test of Dummies in Simar-Wilson Two-Stage Efficiency Analysis Model" (2009), *Applied Economics Letters* **16**:15, p. 1493. (B by ABDC2013)
- 33. "Efficiency in Ukrainian Regions" with Pavlo Demchuk (2009) <u>Journal of Productivity Analysis</u> **32**:2, p.81-102. (A by ABDC2013)
- 34. "Comparative Analysis of Banking Production Frameworks in Eastern European Financial Markets" with Karligash Kenjegalieva, Richard Simper and Tom Weyman-Jones, (2009) <u>European Journal of Operational Research</u>, **198**, pp. 326-340. (A\* by ABDC2013)
- 35. "Local Likelihood Estimation of Truncated Regression and its Partial Derivatives: Theory and Application" with Byeong Park and Léopold Simar (2008) <u>Journal of Econometrics</u> **146**, pp.185-198. (A\* by ABDC2013)
- 36. "Technological Change and Transition: Relative Contributions to Worldwide Growth During the 1990's,"with Oleg Badunenko and Daniel Henderson (2008) Oxford Bulletin of Economics and Statistics 70:4, pp. 461-492. (A by ABDC2013)
- 37. "Aggregation of Nerlovian Profit Indicator," with Rolf Färe and Shawna Grosskopf, (2008) Applied Economics Letters 15, pp. 845–847. (B by ABDC2013)
- 38. Introduction for Journal of Productivity Analysis special issue on transitioning economics, (2008) with Sung-ko Li, Léopold Simar, Paul Wilson, *Journal of Productivity Analysis* 29:2. (A by ABDC2013)
- 39. "Statistical Inference for Aggregates of Farrell-type Efficiencies" with Léopold Simar (2007) <u>Journal of Applied Econometrics</u> **22**:7, pp. 1367-1394. (A\* by ABDC2013)
- 40. "Measuring Potential Gains from Reallocation of Resources" with Vladimir Nesterenko (2007) <u>Journal of Productivity Analysis</u> **28**:1, pp. 107-116. (A by ABDC2013)
- 41. "Testing for Catching-up: Statistical Analysis of DEA Efficiency Estimates," with Daniel Henderson (2007) <u>Southern Economic Journal</u> **73:**4, pp. 1003–1019. (A by ABDC2013)
- 42. "Extending Färe and Zelenyuk", with Rolf Färe (2007) *European Journal of Operational Research* **179**:2, pp. 594-595. (A\* by ABDC2013)
- 43. "On Testing Equality of Two Distribution Functions of Efficiency Score Estimated via DEA", with Léopold Simar (2006) *Econometric Reviews* **25**:4, pp. 497-522. (A by ABDC2013)
- 44. "Aggregation of Malmquist Productivity Indexes," (2006) <u>European Journal of Operational</u> <u>Research</u> **174**:2, pp. 1076-1086. (A\* by ABDC2013)
- 45. "Corporate Governance and Firm's Efficiency: The Case of a Transitional Country, Ukraine" with Vitaliy Zheka (2006) *Journal of Productivity Analysis* **25**, pp.143-168. (A by ABDC2013)
- 46. "On Mr. Farrell's Decomposition and Aggregation," with Rolf Färe, (2005) <u>International Journal of Business and Economics</u> **4**, pp.167-171. (B by ABDC2013)
- 47. "Aggregation Bias And Its Bounds In Measuring Technical Efficiency" with Rolf Färe and Shawna Grosskopf (2004) <u>Applied Economics Letters</u> **11:**10, pp. 657-660. (B by ABDC2013)

- 48. "Aggregation of Cost Efficiency Indicators and Indexes Across Firms" with Rolf Färe and Shawna Grosskopf (2004) <u>Academia Economic Papers</u> **32**:2, pp. 395-411. (C by ABDC2013)
- 49. "On Aggregate Farrell Efficiencies," (2003) with Rolf Färe, <u>European Journal of Operational</u> <u>Research</u> **146**:3, pp. 615-621. (A\* by ABDC2013)
- 50. "Input Aggregation and Technical Efficiency," coauthored with Rolf Färe (2002) <u>Applied</u> <u>Economics Letters</u> **9**, 635-636. (B by ABDC2013)
- 51. Contribution to *Discussion* of paper by M. Stone: 'How not to measure the efficiency of public services'. (2002) coauthored with Rolf Färe and Shawna Grosskopf, *Journal of the Royal Statistical Society* Series A, **165**, Part 3, pp. 429-430. (A by ABDC2013)

#### **Chapters in Books (in English)**

- "Econometric Analysis of Productivity: Theory and Implementation in R", with R. Sickles and W. Song, (2011), <u>Handbook of Statistics</u>, volume 41, Eds. H.D. Vinod and C.R. Rao, Elsevier.<sup>7</sup>
- 2. "Stochastic Frontier Analysis: Foundations and Advances I" with Subal Kumbhakar and Chris Parmeter, In <u>Handbook of Production Economics</u>, Eds., Ray, Chambers and Kumbhakar, Springer, forthcoming.
- 3. "Stochastic Frontier Analysis: Foundations and Advances II" with Subal Kumbhakar and Chris Parmeter, In <u>Handbook of Production Economics</u>, Eds., Ray, Chambers and Kumbhakar, Springer, forthcoming.
- 4. "Aggregation of Individual Efficiency Measures and Productivity Indices." With Andreas Mayer In <u>Handbook of Economic Performance Analysis</u>, Eds. William H. Greene and Thijs ten Raa, Palgrave Macmillan, London, forthcoming.
- 5. "<u>The Productivity of Nations</u>" with Oleg Badunenko and Daniel J. Henderson, invited, refereed and accepted as chapter at <u>The Oxford Handbook of Productivity Analysis</u> (Eds.: Emili Grifell-Tatje, C. A. Knox Lovell and Robin C. Sickles), 2018.
- 6. Shiu, A. and Zelenyuk, V. (2012). Production efficiency versus ownership: The case of China. In Ingrid Van Keilegom and Paul W. Wilson (Ed.), *Exploring research frontiers in contemporary statistics and econometrics* (pp. 23-44) Heidelberg, Germany: Springer.
- 7. "Finding Common Ground: Efficiency Indices," with Rolf Färe and Shawna Grosskopf in "Aggregation, Efficiency, and Measurement," Eds. Färe, Grosskopf, Primont; Springer-Verlag (ISBN: 978-0-387-36948-8), 2007, pp. 83-96.
- 8. "Ukraine: Current Position and Perspectives" in Prašnikar J., Cirman A. (eds.): Opportunities for the Financial Sector in Transition Countries, Finance, 2006. (English, Slovenian)

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<sup>&</sup>lt;sup>7</sup> C.R. Rao is one of the greatest mathematical statisticians alive, e.g., famous for Cramer-Rao lower bound, Rao-Blackwell-Kolmogorov theorem, recipient of the US National Medal of Science, etc.

#### Works in Progress (In English)

- 1. "On Aggregate Technologies."
- 2. "Data Envelopment Analysis and Business Analytics: The Big Data Challenges and Some Solutions" Requested to be revised and resubmitted at *European Journal of Operational Research* (A\* by ABDC2013), sole-authored.
- 3. "Improving Finite Sample Approximation by Central Limit Theorems for DEA and FDH efficiency scores" with Leopold Simar.
- 4. "Measuring Productivity by Quadratic-mean-of-order-r Indexes" with Hideyuki Mizobuchi, in progress.
- 5. Productivity Growth and Convergence: Revisiting Kumar and Russell (2002), with Kelly D.T.Trinh, *revise* & *resubmit stage* at *Journal of Applied Econometrics* (CEPA WP11/2015)
- 6. "Productivity Drivers of Efficiency in Banking: Importance of Model Specifications" with Natalya Zelenyuk, CEPA WP08/2015.
- 7. "Profit Efficiency and DEA", in progress.
- 8. Towards Understanding of the Fundamental Contribution of Konüs and Byushgens (1926) to the Theory of Purchasing Power of Money and the Price Indexes (translation of original article and discussion), with Erwin Diewert. In progress.

## Selected Research Reports for Government and Industries

"Topics in efficiency benchmarking of energy networks: Choosing the model and explaining the results" for the Netherlands Authority for Consumers and Markets, via Economic Insights (2017), with Denis Lawrence, John Fallon, Michael Cunningham and Joseph Hirschberg.

"Topics in efficiency benchmarking of energy networks: Selecting cost drivers" **for the Netherlands Authority for Consumers and Markets,** via Economic Insights (2017), with Denis Lawrence, John Fallon, Michael Cunningham and Joseph Hirschberg.

"Analysis and Forecasting of Imports of Motor Vehicles through the Port of Brisbane" for the Port of Brisbane (Australia) via Uniques, with Flavio Menezes (2014).

"Analysis and Forecasting of Container Throughput in the Port of Brisbane" for the Port of Brisbane (Australia) via Uniques, with Flavio Menezes (2015).

## **Editorial Work (In English)**

- 1. Associate Editor for *Journal of Productivity Analysis* (since July 2013).
- 2. Guest Co-Editor for Special Issue (APPC2014) in Journal of Productivity Analysis.

- 3. An Editor for *Data Envelopment Analysis Journal* (since 2016).
- 4. Guest Co-Editor for Special issue on Productivity in Transitional Economies in <u>Journal of Productivity Analysis</u> 29:2.
- 5. Member (in the past) of Editorial Board for Discussion Papers of *National Bank of Georgia*, (Tbilisi, Georgia).

#### **Articles in Popular Magazines, Newspapers and Newsletters**

"Ukraine: politics, economy and a booming stock market" *Kyiv Post* (June 6, 2007) <a href="http://www.kyivpost.com/opinion/oped/26741/">http://www.kyivpost.com/opinion/oped/26741/</a>

"Yanukovych's Ambitious Promise" *Kyiv Post* (April 5, 2007) http://www.kyivpost.com/opinion/oped/26428/

"2006- A year of Economic Success?" *Kyiv Post* (Feb.08, 2007) http://www.kyivpost.com/opinion/oped/26044/

"Banking in Ukraine: Changes Looming?" (with Natalya Dushkevych) <u>Beyond Transition Newsletter</u> 17:2, (The Newsletter About Reforming Economies, THE WORLD BANK, 2007). <a href="http://www.cefir.ru/index.php?l=eng&id=262">http://www.cefir.ru/index.php?l=eng&id=262</a>

"The Ukrainian Stock Market" <u>Beyond Transition Newsletter</u> 18:2, (The Newsletter About Reforming Economies, THE WORLD BANK, 2007). http://documents.worldbank.org/curated/en/2007/06/8951900/beyond-transition-18-2

"Ukrainian Banking Industry: Evolution and Current State" with Natalya Dushkevych, *The Ukrainian Observer*, (November, 2006). Ukraine: Current Position and Perspectives" Interview for economics newspaper in Slovenia <a href="http://www.finance-on.net/?MOD=show&id=167839">http://www.finance-on.net/?MOD=show&id=167839</a>, 2006.

"Ukraine's Economic Recovery Should Have Been Expected" *Kyiv Post* (Oct. 26, 2006), http://kyivpost.com/opinion/oped/25298/

"The Top Priority for Economic Policy in Ukraine," *Ukrainska Pravda* (October, 2006) <a href="http://www2.pravda.com.ua/news/2006/10/3/48383.htm">http://www2.pravda.com.ua/news/2006/10/3/48383.htm</a> (in Ukrainian)

"Economic Benefits of the Broad Coalition" *Delo*, 211 (October 6, 2006), http://delo.ua/ru/news/10058.html, (in Ukrainian)

"The Three Magic Reasons for Prosperity of Nations: Does Ukraine Have Them?" *The Ukrainian Observer* 73:7, (August, 2006)

"The Three Magic Reasons for Prosperity of Nations: Does Ukraine Have Them?" (in Ukrainian) *Ukrainska Pravda* (August 14, 2006) <a href="http://www2.pravda.com.ua/news/2006/8/11/45982.htm">http://www2.pravda.com.ua/news/2006/8/11/45982.htm</a>

"The Economy Under a Broad Coalition" *Kyiv Post* (July 27, 2006). http://www.kyivpost.com/opinion/oped/24861

"Foreign Ownership vs. Production Efficiency," <u>Beyond Transition Newsletter</u> 17:2, (The Newsletter About Reforming Economies, THE WORLD BANK, 2006).

"Three Steps to Substantially Boost Ukraine's Economic Growth" *Kyiv Post* (May 4, 2006) <a href="http://www.kyivpost.com/opinion/oped/24392/">http://www.kyivpost.com/opinion/oped/24392/</a>

"Ukrainian Economic Miracle Ahead?" in *Kyiv Post*, (April 27, 2006). <a href="http://www.kyivpost.com/opinion/oped/24353/">http://www.kyivpost.com/opinion/oped/24353/</a>

"Ukrainian Firms Prove To Be More Efficient In The Short Run" in *Kyiv Post* (May 18, 2006). http://www.kyivpost.com/opinion/oped/24477/

"Productivity and Efficiency in Ukraine," <u>Beyond Transition Newsletter</u> 16:3, (The Newsletter About Reforming Economies, THE WORLD BANK, 2005).

#### Papers Presented at Conferences (Selected)

- 1. "Measuring Productivity by Quadratic-mean-of-order-r Indexes" with Hideyuki Mizobuchi, at Carnival in Rao: A Workshop in Honour of Professor D.S. Prasada Rao, 3-4 December 2018, The University of Queensland, Australia.
- 2. "Inference for Nonparametric Stochastic Frontier Models," with Leopold Simar, Ingrid Van Keilegom and Chris Parmeter, North American Productivity Workshop (NAPW), at University of Miami, 12-15 June 2018.
- 3. "Combining the Virtues of Stochastic Frontier and Data Envelopment Analysis" with Chris Parmeter, North American Productivity Workshop (NAPW) 2018, Univ. of Miami, June 2018.
- 4. "A Unifying Framework for Farrell Efficiency Measurement Coherent with Profit-maximizing Principle" with Rolf Färe, Xinju He, and Sungko Li. SEM Conference at the Massachusetts Institute of Technology, USA. July 2017
- 5. "Central Limit Theorems for Aggregate Efficiency" with Leopold Simar, presented at European Workshop on Efficiency and Productivity Analysis (EWEPA), 12-15 June 2017, London, UK.
- 6. "Non-Parametric Approach to Dynamic Time Series Discrete Choice Models" with Byeong U. Park and Léopold Simar. Presented at the Econometrics Workshop at the University of Queensland, Australia July 2016.
- 7. "Non-Parametric Approach to Dynamic Time Series Discrete Choice Models" with Byeong U. Park and Léopold Simar. Presented at WEA conference in Portland, OR, USA, June 2016.
- 8. "Non-Parametric Approach to Dynamic Time Series Discrete Choice Models" with Byeong U. Park & Léopold Simar. Seminar at the Universite Catholique de Louvain, Belgium, May 2016.
- 9. "An Aggregation Paradigm for Hicks-Moorsteen Productivity Indexes" with Andreas Mayer International Conference of WEAI, Singapore, January 7-10, 2016
- 10. "Nonparametric Least Squares Methods for Stochastic Frontier Models" with Leopold Simar and Ingrid Van Keilegom, presented at European Workshop on Efficiency and Productivity Analysis (EWEPA), Helsinki, Finland, June 2015
- 11. "Nonparametric Least Squares Methods for Stochastic Frontier Models" with Leopold Simar and Ingrid Van Keilegom, presented at LECCEWEPA, June 2015, Lecce, Italy.

- 12. "Nonparametric Least Squares Methods for Stochastic Frontier Models" with Leopold Simar and Ingrid Van Keilegom, presented at New Zealand Econometric Study Group Meeting, February 2014.
- 13. "To Smooth or Not to Smooth? The Case of Discrete Variables in Nonparametric Regressions" with Degui Li and Leopold Simar, Econometric Society Australasian Meeting (ESAM) 2013, Sydney, Australia.
- 14. "Aggregation of Scale Efficiency" European Workshop on Efficiency and Productivity Analysis (EWEPA), June 2013, Helsinki, Finland.
- 15. "Scale efficiency and homotheticity: equivalence of primal and dual measures" June 2013, Helsinki, Finland.
- "To Smooth or Not to Smooth? The Case of Discrete Variables in Nonparametric Regressions" with Leopold Simar, 23 New Zealand Econometric Study Group Meeting, February 2013.
- 17. "To Smooth or Not to Smooth? The Case of Discrete Variables in Nonparametric Regressions" with Leopold Simar, Econometric Society Australasian Meeting (ESAM) 2012.
- 18. "A Note on Equivalences in Measuring Returns to Scale in Multi-output-multi-input Technologies" European Workshop on Efficiency and Productivity Analysis (EWEPA), June 2011, Pisa, Italy.
- 19. "Does Case-mix Matter? An analysis of productivity, efficiency and technological change in Hospital services in Ontario" presented at Efficiency and Productivity in the Health Sector, CEPA, University of Queensland, Brisbane, Australia. September 2010.
- 20. "Efficiency in Ukrainian Banking" presented at EWG on Efficiency and Productivity Analysis, July 2-4 2010, Chania, Greece.
- 21. "Local Estimation of Stochastic Frontier Analysis with Heteroskedastic Noise and Inefficiency and Unknown Technology Relationship" presented at North American Productivity Workshop, June 2010, at Rice University, Houston (USA), with Leopold Simar.
- 22. "Aggregation of Hyperbolic Efficiency" presented at North American Productivity Workshop, June 2010, at Rice University, Houston (USA), with levhen Bobykin.
- 23. "Categorical Variables in Non-parametric Stochastic Frontier Analysis", European Workshop on Efficiency and Productivity Analysis, June2009, Pisa, Italy, with Leopold Simar.
- 24. "Stochastic FDH/DEA estimators for Frontier Analysis", North American Productivity Workshop 2008 (Stern Business School, NYU (USA), June 24-27, 2008) with Leopold Simar.
- 25. "Local Likelihood Estimation of Truncated Regression and its Partial Derivatives: Theory and Application" European Econometric Society Meeting, Vienna, Austria, August 2006, with Byeong Park and Leopold Simar.
- 26. "Local Likelihood Estimation of Truncated Regression and its Partial Derivatives: Theory and Application" at North American Productivity Workshop 2006, at New York University (USA),

- with Byeong Park and Leopold Simar.
- 27. "On Commensurability of Directional Distance Functions", at North American Productivity Workshop 2006, at New York University (USA), with Mykhaylo Salnykov.
- 28. "Bootstrapping Aggregate Malmquist Productivity Indexes" at North American Productivity Workshop 2006, at New York University (USA), with Alexander Romanov.
- 29. "Efficiency in Ukrainian Banking" at North American Productivity Workshop 2006, at New York University (USA), with Natalya Dushkevych.
- 30. "Efficiency in Ukrainian Regions" at North American Productivity Workshop 2006, at New York University (USA), with Pavlo Demchuk.
- 31. "Local Likelihood Estimation of Truncated Regression and its Partial Derivatives: Theory and Application" at "Second Lviv Efficiency and Productivity Workshop: Theory and Applications," Lviv, Ukraine (April 17, 2005), with Byeong Park and Leopold Simar.
- 32. "Efficiency in Ukrainian Banking" UKEPAN Conference in Leicester, UK, February 16-18, 2006, with Natalya Dushkevych.
- 33. "Corporate Governance and Firm's Efficiency: The Case of a Transitional Country, Ukraine" at European Workshop of Efficiency and Productivity Analysis), Brussels 2005, with V.Zheka.
- 34. "Technological Change and Transition: Relative Contributions to Worldwide Growth During the 1990's" WEAI/HKEA 2005 Pacific Rim Conference, Hong Kong, China, January 2005.
- 35. "Statistical Inference for Aggregates of Farrell-type Efficiencies" (2003), EC2 conference, Econometrics in Industrial Organization (Dec. 16-18, 2004, Marseille, France).
- 36. "Testing for Catching-up: Statistical Analysis of DEA Efficiency Estimates," North American Productivity Workshop, University of Toronto, Canada, June 2004, with Daniel Henderson.
- 37. "On Testing Equality of Distribution of Efficiency Scores Estimated via DEA" (with Léopold Simar) North American Productivity Workshop, University of Toronto, Canada. June 2004.
- 38. "On Aggregation of Malmquist Productivity Indexes," North American Productivity Workshop, (organized by University of Toronto) Toronto, Canada (June 22-25, 2004).
- 39. "Testing of Contribution of Different Sources of Economic Growth in Growth-Accounting Framework" presented at 4th International Conference on "ICT as Drivers of Development in Transitional Economies," Warsaw, Poland (May 14, 2004).
- 40. "Estimation and Analysis of Efficiency of Economic Systems: Some Recent Theoretical Developments and Possible Applications," with Alexej Lissitsa (based on results from joint projects with Léopold Simar, presented at IAMO Workshop, Halle, Germany (2003).
- 41. "Statistical Inference for Aggregates of Farrell-type Efficiencies" (2003), 8th European Workshop on Productivity and Efficiency Analysis (8EWEPA), Oviedo, Spain (2003), with Léopold Simar.

- 42. "On Testing Equality of Two Distribution Functions of Efficiency Score Estimated via DEA" (2003), 8th European Workshop on Productivity and Efficiency Analysis (8EWEPA), Oviedo, Spain (2003), with Léopold Simar.
- 43. "Finding Common Ground: Efficiency Indices," (Conference on Aggregation and Efficiency Measurement: in honor of Robert R. Russell, University of California at Riverside, USA, 2003), with and presented by Rolf Färe, Shawna Grosskopf.
- 44. "Directional and Shephard's Distance Functions: New Link and its Implication to Productivity Measurement," (at 2nd HEWPEM, Patras, Greece, 2003).
- 45. "Finding Common Ground: Efficiency Indices," with Rolf Färe and Shawna Grosskopf. North American Productivity Workshop-II (at Union College, New York, USA, 2002).
- 46. "Aggregation of Cost Efficiency Indicators and Indexes Across Firms" with and presented by Rolf Färe and Shawna Grosskopf. Asian Productivity Workshop (Taiwan, 2002).
- 47. "Causes of Concentration in the U.S. Brewing Industry: Reconciling the Debate with the Data Envelopment Analysis" (2002), West. Econ. Assoc. Int., (Seattle, USA).

#### **Invited Seminars and Speeches (Selected)**

- 1. **Keynote speech at panel session:** "Data Envelopment Analysis and Business Analytics: The Big Data Challenges and Some Solutions" Asia Pacific Productivity Conference 2018 (APPC2018), at Soul National University, Seoul, South Korea, July 2018.
- 2. **Invited speech at organized session**: "Inference for Nonparametric Stochastic Frontier Models," with Leopold Simar, Ingrid Van Keilegom and Chris Parmeter, Asia Pacific Productivity Conference 2018 (APPC2018), at Soul National University, Seoul, South Korea, July 2018.
- 3. **Invited Speaker** at DEA International Conference, Hefei University of Technology, China, 7-10 July 2017 "Central Limit Theorems for Aggregate Efficiency".
- 4. **Invited Seminar** at the University of Adelaide: "Central Limit Theorems for Aggregate Efficiency" based on work with Leopold Simar. 28 April 2017.
- 5. **Invited Seminar** at the Australian National University: "Central Limit Theorems for Aggregate Efficiency" based on work with Leopold Simar. 28 March 2017.
- Invited Seminar at the University of Technology Sydney: "Non-Parametric Approach to Dynamic Time Series Discrete Choice Models" based on work with B. U. Park and L. Simar, CEPA WP09/2013. October 2016
- 7. **Invited Seminar** at the University of Monash (Department of Econometrics and Business Statistics): "Non-Parametric Approach to Dynamic Time Series Discrete Choice Models" based on work with B. U. Park and L. Simar, CEPA WP09/2013. October 2016
- 8. **Keynote Speech** at the Annual Workshop of the Taiwan Efficiency and Productivity Association (TEPA), 12 July 2016: "Importance of Aggregation in Productivity and Efficiency Analysis"

- 9. **Invited Seminar** at the Universite Catholique de Louvain, Belgium: "Non-Parametric Approach to Dynamic Time Series Discrete Choice Models" based on work with B. U. Park and L. Simar, CEPA WP09/2013. 13 May 2016
- 10. *Invited Speaker* at Workshop in Productivity and Efficiency Analysis, University of Macau, 20 April 2016: "Nonparametric Least Squares Methods for Stochastic Frontier Models" based on work with Leopold Simar and Ingrid Van Keilegom.
- 11. *Invited Speaker* at Hong Kong Baptist University, Hong Kong, China: "Nonparametric Least Squares Methods for Stochastic Frontier Models" based on work with Leopold Simar and Ingrid Van Keilegom. February 2016,
- 12. *Guest Lecture* at the Hong Kong Baptist University, Hong Kong, China: "How to do your research: From A to Z", February 2016
- 13. **Invited Seminar** at the University of Auckland, New Zealand, March 2015: "Regional and Ownership Drivers of Bank Efficiency: Importance of Model Specifications", based on work with Natalya Zelenyuk.
- 14. **Invited Seminar** at Kyiv School of Economics, Kyiv, Ukraine. September 2013: "To Smooth or Not to Smooth? The Case of Discrete Variables in Nonparametric Regressions" based on work with Degui Li and Leopold Simar.
- 15. **Invited Seminar** at Department of Econometrics of University of Auckland, New Zealand: "Scale Efficiency: Equivalence of Primal and Dual Measures" (2012).
- 16. *Invited Speaker* at "Efficiency measurement: New methods and application to the food sector" Toulouse School of Economics, France, June 2011: "Aggregation and Bootstrap of Growth Rates and Sources in Growth Accounting"
- 17. **Invited Seminar** at Department of Econometrics and Business Statistics of Monash University, Australia: "Local Maximum Likelihood Techniques with Categorical Data" with Byeong Park & Léopold Simar (2011).
- 18. **Invited Seminar** at Department of Operations Research and Econometrics of University of Sydney, Australia: "Local Maximum Likelihood Techniques with Categorical Data" with Byeong Park & Léopold Simar (2011).
- 19. **Invited Speaker** at the State Statistics Committee of Luxembourg, July 17, 2009: "Aggregation and Bootstrap of Growth Rates and Sources in Growth Accounting."
- 20. **Invited Speaker** at the Central Bank of Luxembourg, July 15, 2009: "Aggregation and Bootstrap of Growth Rates and Sources in Growth Accounting."
- 21. **Invited Speaker** at the conference in honor of Leopold Simar, Belgium, May 14-15, 2009: "Aggregation and Bootstrap of Growth Rates and Sources in Growth Accounting."
- 22. **Keynote Speech** at Swedish-Ukrainian Business Club (April 18, 2007): "Ukrainian Economy and Stock Markets"
- 23. **Keynote Speech** at Portoroz Business Conference (Nov. 16-17, 2006, Portoroz, Slovenia): "Ukraine: Current Position and Opportunities"

- 24. **Invited Seminar** at Rice University, Houston, Texas, USA: "Local Likelihood Estimation of Truncated Regression and its Partial Derivatives: Theory and Application" (March 10, 2006)
- 25. **Invited Seminar** at Southern Methodist University, Dallas, Texas, USA: "Local Likelihood Estimation of Truncated Regression and its Partial Derivatives: Theory and Application" (March 3, 2006)
- 26. **Invited Seminar** at Groningen Growth and Development Center, Groningen, Netherlands: "Technological Change, Technological Catch-up, and Capital Deepening: Relative Contributions to Growth and Convergence During 90's" (March 16, 2005).
- 27. **Invited Seminar** at CORE/STAT, Universite Catholique de Louvain, Belgium: "Technological Change, Technological Catch-up, and Capital Deepening: Relative Contributions to Growth and Convergence During 90's" (Feb 25, 2005)
- 28. **Invited Seminar** at Dept. of Economics/School of Business, Hong Kong Baptist University: "Technological Change, Technological Catch-up, and Capital Deepening: Relative Contributions to Growth and Convergence During 90's" (Jan 12, 2005).
- 29. **Invited Seminar** at Dept. of Economics, Katholieke Universiteit Leuven, Belgium: "Technological Change, Technological Catch-up, and Capital Deepening: Relative Contributions to Growth and Convergence During 90's," December 15, 2004,
- 30. **Invited Seminar** at The Davis Center for Russian and Eurasian Studies of Harvard University: "Technological Change, Technological Catch-up, and Capital Deepening: Relative Contributions to Growth and Convergence During 90's," (February, 2004).
- 31. **Invited Seminar** at the Institute of Agricultural Development in Central and Eastern Europe (IAMO), Halle (Saale), Germany, July 2003: "Aggregation Issues in Efficiency Analysis"
- 32. **Invited Seminar** at the Institute of Agricultural Development in Cent. & East. Europe (IAMO), Halle, Germany, August 2003: "Statistical Analysis for DEA-type Efficiency: Introduction to the Bootstrap"
- 33. **Invited Seminar** at the Institute of Statistics and the CORE, University Catholique de Louvain. (February, 2003): "Statistical Foundation for Aggregates of Farrell-type Efficiencies,"
- 34. **Internal Seminar** at EERC and National University "Kyiv-Mohyla Academy", Kyiv (Kiev), Ukraine, 2003: "Statistical Analysis of Aggregates of Farrell-type Efficiencies"
- 35. **Internal Seminar** at Department of Agricultural and Resource Economics, Oregon State University, USA (February 2002): "Aggregation Issues in Efficiency Analysis"
- 36. **Internal Seminar** at Oregon State University, USA (2001): "Directional and Shephard's Distance Functions: New Link and its Implication to Productivity Measurement (December)
- 37. **Internal Seminar** at Oregon State University, USA (2001): "Consistent Aggregation of Farrell-type Efficiency Scores," (October).

#### **Academic Services**

- Program Committee Member (session organizer) of the <u>15th International Conference of Western Economic Association International (WEAI)</u>, 21-24 March 2019.<sup>8</sup>
- Program Committee for Western Economic Association International (WEAI) 2018 Conference, Newcastle, Australia.
- Scientific Program Committee for The 1st International Conference on Econometrics and Statistics (EcoSta 2017) at the Hong Kong University of Science and Technology.
- Research Director and Chair of Research and RHD Committee for the School of Economics at The University of Queensland, Australia.
- Steering Committee Member for 2015 Australian Conference of Economists.
- Chair of the Scientific Committee for 2014 Asia Pacific Productivity Conference.
- Co-Chair of the Organizing Committee for 2014 Asia Pacific Productivity Conference.
- Representative of Faculty (level A-D) at the Executive Committee of the School of Economics of the University of Queensland (since January 2013).
- Chair of the Liaison Committee (summarizing and representing view of School of Economics) for Recruitment of Junior Faculty Members from AEA market of 2012.
- Job market interviews for EERC (Chicago, IL, USA, January 2006).
- Academic Curriculum Committee (EERC, Ukraine).
- Student Admission Interviews (EERC, Ukraine).
- Grading Disputes Committees (EERC, Ukraine).

## Refereeing for Evaluations of Research and Grants (In English Only)

Peer Reviewer for Excellence in Research for Australia (ERA), 2015 Assessor for Australian Research Council (ARC) Discovery Projects EERC research grant competition, July 2010 (Lviv, Ukraine).

EERC-Russia & CIS, July 2003, Economics research grant competition (2) (Moscow, Russia).

EERC-Russia & CIS, December 2002, Economics research grant competition (2) (Moscow, Russia).

## Refereeing for Academic Journals (Selected, International Only)

Operations Research (regularly), Journal of Econometrics (regularly), Journal of Applied Econometrics (regularly), OMEGA (regularly), European Journal of Operational Research (regularly), Journal of Productivity Analysis (regularly), Computational Statistics and Data Analysis, Annals of Operations Research, International Journal of Production Economics,

<sup>&</sup>lt;sup>8</sup> This is one of largest international conferences in economics with many renowned keynote speakers (**including two Nobel Laureates**), this time hosted by Keio University, Tokyo, Japan.

<sup>&</sup>lt;sup>9</sup> This is one of largest international conferences in economics with many renowned keynote speakers (**including one Nobel Laureate**), this time hosted by Newcastle University, Australia.

Agricultural Economics, International Economic Review, Optimization Letters, Journal of Multivariate Analysis, Journal of Economic Education, etc.

#### **Organized Projects / Conferences**

CEPA Intensive Course on Network DEA (lectures by Hiro Fukuyama and Valentin Zelenyuk), September 2018.

Annual CEPA International Workshop, 1-2 November 2018.

CEPA Intensive Course on Performance Analysis (lectures by V. Zelenyuk), September 2017.

Annual CEPA International Workshop, 2-3 November 2017.

Annual CEPA International Workshop, 27-28 October 2016.

CEPA Intensive Course on Bootstrap (lectures by Paul Wilson), 13-14 August 2016.

2-Day Workshop on Advances in Economic Measurement, 1-2 October 2015.

CEPA Intensive Course on Nonparametric Econometrics (lectures by Chris Parmeter), September 2015.

CEPA Intensive Course on Stochastic Frontier Analysis (lectures by Robin Sickles), Sept. 2015.

CEPA Workshop on Productivity Analysis, July 2014.

APPC2014 Asia Pacific Productivity Conference, July 8-11, 2014, Brisbane, Australia

CEPA Bootcamp on Bootstrap Workshop (lectures by Leopold Simar), November 2011

"Second Lviv Efficiency and Productivity Workshop: Theory and Applications," Lviv, Ukraine (April 17, 2005). Sponsored by KEI and UPEG (EERC).

"Myths and Reality of Productivity Miracles and Failures in Transitional Economies" (2-day International Conference), Kiev, Ukraine. (July 4-5, 2005). Sponsored by UPEG.

"Efficiency and Productivity Workshop: Theory and Applications," Lviv, Ukraine (April 2-3, 2005). Sponsored by UPEG.

"Economic Efficiency: Concepts and Applications to Ukraine and Neighboring Countries" (2-day International Round Table, 30 participants), Kiev, Ukraine. Sponsored by American Councils (USAID) and EERC-Kiev. *Responsibility:* Co-Organizer, Co-Chair of the Round Table Discussions (July, 2004).

"Factors of Economic Growth in Ukraine and Neighboring Countries" (2-day International Round Table, 90 participants), Kiev, Ukraine. Sponsored by American Councils (USAID) *Responsibility:* Co-Organizer, Co-Chair of the Round Table Discussions (November, 2003).

"Tarasov's Tallinn School of Management Approach" (9-day Seminar, 35 partic.), *Responsibility:* President of Organizing Committee, (1995).

"Gender and Business" (5-day Seminar, 30 participants), Ukraine, *Responsibility:* Executive Director of Organizing Committee, (1994).

# **Certified Intensive Training (In English Only)**

| 2005 | Computable General Equilibrium Modeling (by <u>David Tarr</u> , WORLD BANK, Moscow, Russia).   |
|------|--|
| 2005 | Game Theory (by <u>Dilip Abreu</u> and <u>Ehud Kalai</u> , and seminar by Ariel Rubinstein Department of Economics, Univ. Nova (Lisbon, Portugal).                         |
| 2001 | Experimental Economics (by <u>Vernon Smith</u> , <i>etc.</i> , George Mason Univ., USA)) Summer Graduate Student Workshop (sponsored by IFREE, USA)                        |
| 1996 | International Trade (by <u>Ronald Jones</u> , University of Rochester, USA)<br>Summer School of Economics, Olsztyn, Poland ( <i>Batory Foundation, World Bank</i> )        |
| 1996 | Industrial Organization (by <u>Yossi Spiegel</u> , University of Tel Aviv, Israel)<br>Summer School of Economics, Olsztyn, Poland ( <i>Batory Foundation, World Bank</i> ) |
| 1995 | Macroeconomics (by <u>Jerzy Konieczny</u> , Wilfried Laurier University, USA)<br>Summer School of Economics, Olsztyn, Poland ( <i>Batory Foundation, World Bank</i> )      |
| 1995 | Microeconomics (by <u>Carl Simon</u> , University of Michigan, USA)<br>Summer School of Economics, Olsztyn, Poland ( <i>Batory Foundation, World Bank</i> )                |

## **Honors and Awards**

| 2017      | ARC Future Fellow Award (2017-2021, FT170100401, \$944,000.00): Improving productivity: theory and application to Australian hospitals.  |
|-----------|--|
| 2016      | "High Quality Sabbatical Visitors/Distinguished Scholars Fellowship" from Hong Kong Baptist University, Hong Kong for 2016, with research visit during 10/01/2016-7/05/2016. (Awarded by "Research Committee's Matching Scheme for Inviting High Quality Sabbatical Visitors/Distinguished Scholars 2014/15"). |
| 2016      | Nominated by DVC(Research) for ARC Future Fellow Award   |
| 2014      | The Distinguished Teaching Award of the School of Economics at the University of Queensland, recognize excellence in teaching practices within the School (Small Undergraduate Courses) in 2013  |
| 2012      | The School of Economics Award for Excellence in Teaching (Small Undergraduate Courses) in 2011   |
| 2009      | Bill Maynes Award by Eurasia Foundation (USA), awarded on Nov. 5, 2009 in Washington DC, USA.  |
| 2004-2005 | Postdoc Fellowship at the Institut de Statistique, Université Catholique de Louvain (UCL), Belgium   |
| 2002-2004 | Swedish Government Professorship Award, 2002-2003, 2003-2004.  |

| 2002 | First Prize (Newest <i>IBM Laptop</i> computer) in Poster Competition (with Rolf Färe) at the <i>North American Productivity Workshop-II</i> (at Union College, NY, USA) |
|------|--|
| 2001 | Outstanding Graduate Assistant Award " for the best record of teaching or teaching performance in the previous year" (Department of Economics, Oregon State University). |
| 2001 | Scholarship from IFREE for Workshop in Experimental Economics, USA (2001)  |
| 1999 | PhD fellowship at the Department of Economics, Oregon State University.  |
| 1997 | Edmund Muskie Fellowship ( <i>US government</i> ) for MSc. study in Economics at Oregon State University.  |
| 1996 | Summa cum laude, Donetsk State Institute of Commerce, Ukraine.   |
| 1996 | Scholarship of the President of Ukraine.   |
| 1996 | Scholarship for <i>Summer School of Economics</i> in Poland (from <i>Batory Foundation</i> and <i>The World Bank</i> ).  |
| 1995 | Scholarship of the President of Ukraine.   |
| 1995 | Scholarship for <i>Summer School of Economics</i> in Poland (from <i>Batory Foundation</i> and <i>The World Bank</i> ).  |

#### Skills

Languages: English (free), Russian (native), Ukrainian (fair).

Experience in Computer Languages and Applications: MATLAB

Previous experience: C, SAS (Unix/Windows), SAS-IML, Gauss, AMPL, OX;

Comp. OS and Applications: WINDOWS, UNIX, MS-DOS; MS-Office, OnFront, etc.

Hobbies: Philosophy, Mathematics, Sports (Tennis, Table Tennis, Soccer, Volleyball, etc.).

## **Professional Rankings (recorded on November 2018)**

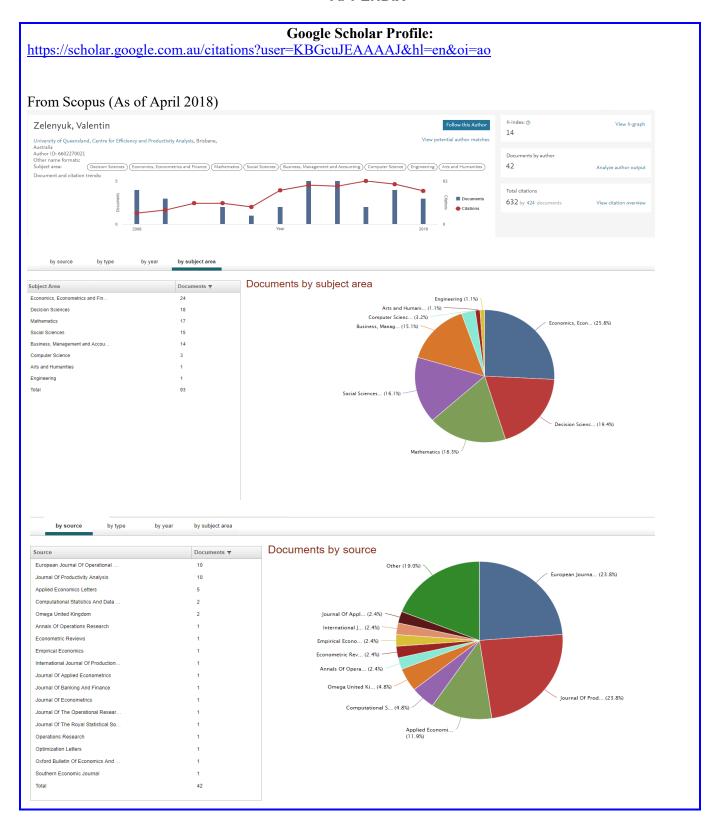
- in top 6% in the World overall (https://ideas.repec.org/top/top.person.all.html)
- in top 3% considering only last 10 years research (https://ideas.repec.org/top/top.person.all10.html),
- in top 100 economists in Australia (<a href="https://ideas.repec.org/top/top.australia.html">https://ideas.repec.org/top/top.australia.html</a>).
- in top 8 economists in Australia who gained PhD after 2001 (estimated using the same link as above)
- in top 2% in the World in the field of Efficiency & Productivity (<a href="https://ideas.repec.org/top/top.eff.html">https://ideas.repec.org/top/top.eff.html</a>). Near the ranks of such renowned scholars as Marc Melitz (Harvard), Bronwyn Hall (Berkeley), William Nordhaus (Yale), etc.

#### References (listed in alphabetical order)

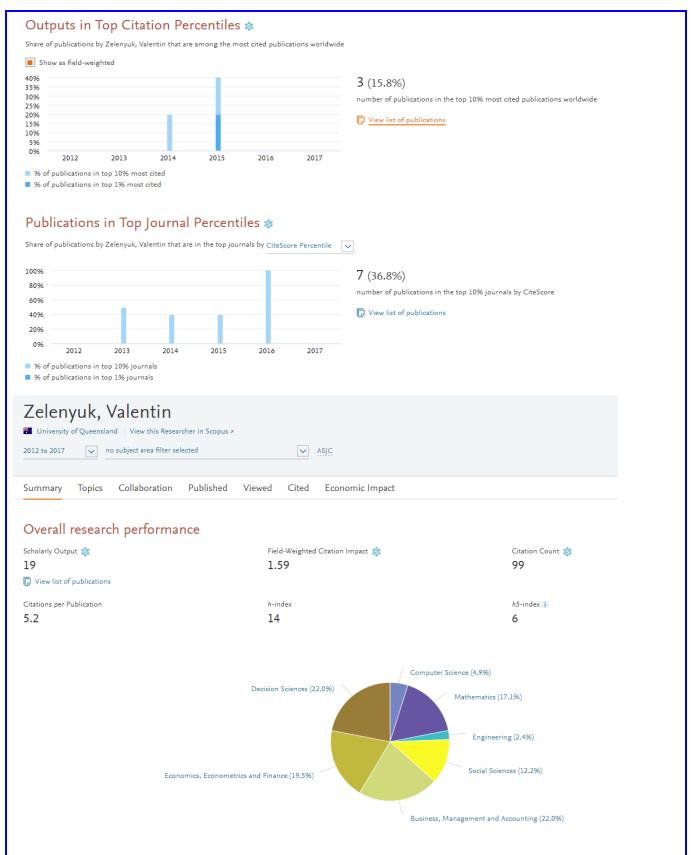
*Erwin Diewert*, Professor, Vancouver School of Economics, University of British Columbia, Canada. 604-822-2544, <a href="mailto:Erwin.Diewert@ubc.ca">Erwin.Diewert@ubc.ca</a>

- Rolf Färe, Professor, Department of Economics and Department of Agricultural and Resource Economics, Oregon State University, (541)-737-8184, Rolf.Fare@orst.edu
- William H. Greene (Robert Stansky Professor of Economics, Toyota Motor Corp. Professor of Economics), NYU Stern School of Business, Henry Kaufman Management CenterDepartment of Economics 44 West Fourth Street, 7-90New York, NY 10012 Phone: (212) 998 -0876E mail: wgreene@stern.nyu.edu
- John Quiggin, ARC Australian Laureate Fellow, Professor, School of Economics, The University of Queensland, +61 7 334 69646; i.quiggin@uq.edu.au
- D.S. Prasada Rao, Emeritus Professor, School of Economics, The University of Queensland, +61 7 336 56424, d.rao@uq.edu.au
- Robin C. Sickles, Professor, Rice University, Houston, TX, USA; email: <a href="mailto:rsickles@rice.edu">rsickles@rice.edu</a>
- Léopold Simar, Professor, Institut de Statistique, Université Catholique de Louvain, Belgium +32-10-474-308, <a href="mailto:simar@stat.ucl.ac.be">simar@stat.ucl.ac.be</a>

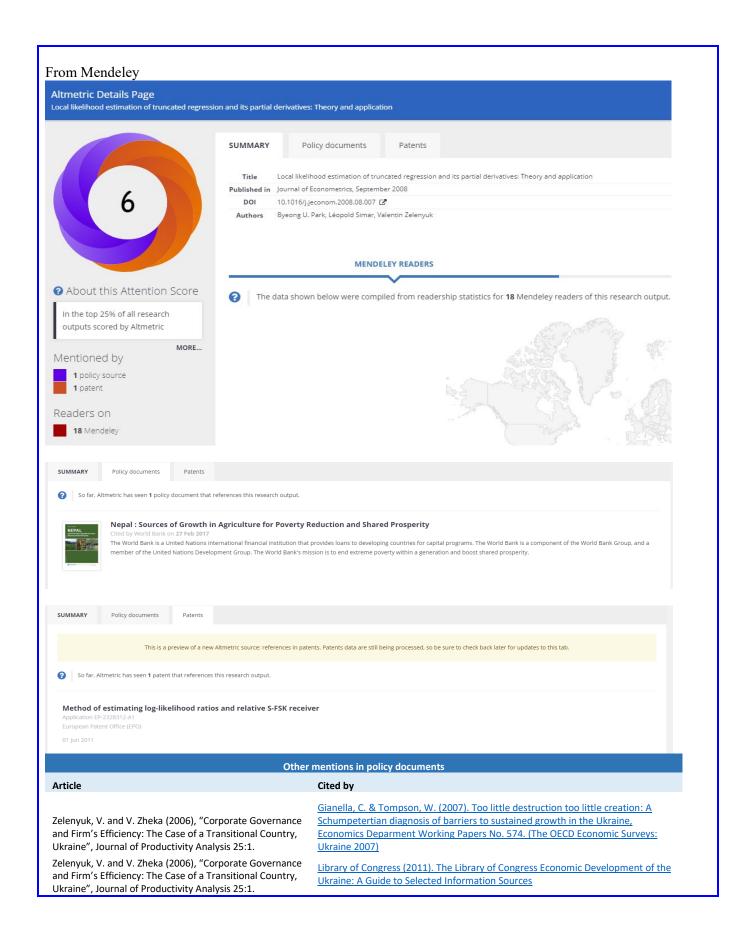
#### **APPENDIX**



| Metric                               |       | Publications | Citations | Citations per Publication | Field-Weighted Citation Impac |
|--------------------------------------|-------|--------------|-----------|---------------------------|-------------------------------|
| ■ International collaboration        | 68.4% | 13           | 64        | 4.9                       | 1.99                          |
| ■ Only national collaboration        | 0.0%  | 0            | 0         | 0.0                       |                               |
| Only institutional collaboration     | 10.5% | 2            | 6         | 3.0                       | 0.2                           |
| Single authorship (no collaboration) | 21.0% | 4            | 29        | 7.2                       | 0.98                          |



15.8% of my publications between 2012-2017 that are indexed in Scopus are in the 10% most cited publications worldwied, as measured against similar outputs of the same age in a similar fields (Source:SciVal, April 2018)



Klishchuk, Bogdan and Valentin Zelenyuk (2011),
—Impact of ServicesLiberalization on Firm Level
Productivity in Eastern Europe and Central Asia,||
Economics Education Research Consortium Final Report
12/03E. Available at http://www.eerc.ru/paperinfo/326

Tarr, D. (2012) Impact of Services Liberalization on Industry Productivity, Exports and Development: Six Empirical Studies in Transition Countries. The World bank Institute, Growth and Competitiveness Unit. (The World Bank Policy Research Working Paper 60

#### Remarks on Quality of Journals based on various Objective Scientometric Facts

<u>Operations Research</u> (3 publications) besides being A\* in ABDC2013 ranking, it is the very best journal in the field of operations research and mathematics for business analysis. Along with very few journals from each field (e.g., *AER*, *Annals of Statistics, Econometrica, JASA*, *Management Science*, etc.) it consistently stays in the league of the very best journals in the world, according to many rankings (e.g., see ranking of ABS). This journal is in the list of Financial Times top 50 journals.

**European Journal of Operational Research** or EJOR (10+ publications) is usually considered as one of two best journals that fully specialize on Operations Research (along with the Operations Research journal), and includes the field of productivity and efficiency analysis as one of areas. It is also worth noting that one of the most important papers in the area of efficiency and productivity analysis, by Charnes, Cooper and Rhodes (1978, over 23,000 citations in Google), was also published in EJOR, as many other major papers in the area. The following facts might also be useful to consider:

- It is ranked as A\* according to ABDC2013.
- Comparison based on up-to-date impact factors against such very top journals in the field as *Management Science* and *Operations Research* reveals that EJOR has very similar impact factor and very similar h-index as them.
- A comprehensive analysis in Holsapple and Lee-Post (2010, doi:10.1016/j.omega.2009.08.002) concludes that:
  - (i) EJOR is **ranked 1st** among 22 journals in the field of Operations Management (including *Management Science* and *Operations Research*) based on breadth scores;
  - (ii) EJOR is **ranked 3rd** (just below *Management Science* and *Operations Research*) on intensity scores in a larger peer group of 26 journals.
- Google Scholar has ranked EJOR as among the top 3 publications in Operations Research (as of 20/11/2017 it was ranked in **top 2**)

https://scholar.google.com/citations?view op=top venues&hl=en&vq=eng operationsresearch

<u>Journal of Econometrics</u> (1 publication) is usually considered to be among the top journals in economics, one of the two best journals in econometrics and the best journal that fully specializes on econometrics (i.e., when considering *Econometrica* as a general journal rather than one that focused on econometrics.), Ranked A\* in ABDC2013.

<u>Journal of Applied Econometrics</u> (1 publication) is usually considered to be among the top journals in economics, one of two best journals that fully specializes on econometrics and the best journal that fully specializes on applied econometrics. Ranked A\* in ABDC2013.

<u>Journal of Productivity Analysis</u> (8 publications) is the main journal is the field of productivity and efficiency analysis. Ranked A in ABDC2013.

<u>OMEGA: The International Journal of Management Science</u> (2 publications) is a well-respected refereed journal in the area of Management Science. For example,

- It is ranked as A\* according to ABDC2013.
- Google Scholar has ranked this journal consistently in top 20 in the top publications in Strategic Management (as of 20/11/2017 it was ranked in **top 9**, above Harvard Business Review, Journal of Operations Management, etc.)

https://scholar.google.com/citations?view\_op=top\_venues&hl=en&vq=bus\_strategicman agement

<u>International Journal of Production Economics</u> (1 publication) is a well-respected refereed journal in the area. For example,

- It is ranked as A\* according to ABDC2013 (<a href="http://www.abdc.edu.au/pages/abdc-journal-quality-list-2013.html">http://www.abdc.edu.au/pages/abdc-journal-quality-list-2013.html</a>).
- Google Scholar also ranks this journal among the 3 top publications in *Operations Research* (as of 20/11/2017 it was ranked in **top 1**)

https://scholar.google.com/citations?view op=top venues&hl=en&vq=eng operationsresearch

• Google Scholar also ranks this journal as in top 20 **overall** in *Business, Economics and Management* area (as of 20/11/2017 it was ranked in top 7, above *Management Science, Econometrica, Review of Economic and Statistics*, etc.):

https://scholar.google.com/citations?view op=top venues&hl=en&vq=bus.