

# JOB PROTECTION'S SECTORAL AND LOCAL ADJUSTMENTS – INSTRUMENT IN VIEW TO ACCELERATING ECO-INNOVATION ENACTMENT

**Cristina LINCARU<sup>a,\*</sup>, Vasilica CIUCĂ<sup>b</sup>, Speranța PÎRCIOG<sup>c</sup>,  
Draga ATANASIU<sup>d</sup>**

<sup>a,b,c,d)</sup> National Scientific Research Institute for Labor and Social Protection,  
Bucharest, Romania

Please cite this article as:

Lincaru, C., Ciucă, V., Pîrciog, S., Atanasiu, D., 2017. Job protection's sectoral and local adjustments – Instrument in view to accelerating eco-innovation enactment. *Review of Economic Studies and Research Virgil Madgearu*, 10(2), pp.133–157.  
doi: 10.24193/RVM.2017.10.13.

Article History:

Received: 29 July 2017  
Accepted: 22 September 2017

**Abstract:** Romania's transition towards the green economy is strongly heterogeneously in both terms: sectoral and spatial, with low performance of economy in innovation and eco-innovation. From the 81 sectors analysed more than a half needs to diminish a significant gap in productivities, while more than ¼ requests with high priority to be restructured – presenting clear alarm signals. The Anselin's Global spatial autocorrelation model confirm the tendency of clustering for the highly skilled workers in more than 4/5 sectors from 88 studied (Microdata – National Institute of Statistics), in HH location core clusters. These "brain hubs" or "innovation clusters" in the sense of Moretti (2012) indicates the importance of a smart employment protection legislation adjusting (EPL).

**Key words:** job protection; labour productivity; carbon productivity; eco-innovation; "brain hubs" or "innovation clusters"

**JEL Classification:** O11; O33; O44; J24; J80

© 2017 Alma Mater Publishing House. All rights reserved.

---

\* Corresponding author. E-mail address: cristina.lincaru@yahoo.de.

## References

1. Anselin, L., 1996. The Moran scatterplot as an ESDA tool to assess local instability in spatial association. In: Fischer, M., Scholten, H.J., Unwin, D. (eds.), 1996. *Spatial Analytical Perspective on GIS*. GISDATA series Editors Masser, I, Salge, F. London: Taylor & Francis, Ch. 8. Available at: [https://books.google.ro/books?hl=en&lr=&id=6syqjmb85\\_8C&oi=fnd&pg=PA121&dq=info:1POoXewXoXMJ:scholar.google.com&ots=jrmnmoo-d5&sig=yOiBZW3gAipS\\_l4M5uEnePpbC58&redir\\_esc=y#v=onepage&q=&f=false](https://books.google.ro/books?hl=en&lr=&id=6syqjmb85_8C&oi=fnd&pg=PA121&dq=info:1POoXewXoXMJ:scholar.google.com&ots=jrmnmoo-d5&sig=yOiBZW3gAipS_l4M5uEnePpbC58&redir_esc=y#v=onepage&q=&f=false). [Accessed 16 June 2017].
  2. Anselin, L., 1998. GIS Research Infrastructure for Spatial Analysis of Real Estate Markets. *Journal of Housing Research*, 9(1), pp. 113-133.
  3. Anselin, L., 2003. *GeoDa™ 0.9 User's Guide*. [pdf] Spatial Analysis Laboratory, Department of Agricultural and Consumer Economics University of Illinois, Urbana-Champaign, Urbana, IL 61801. Available at: <http://sal.agecon.uiuc.edu/>> and Centre for Spatially Integrated Social Science. Website < <http://www.csiss.org/>, Revised, June 15, 2003. [Accessed 3 August 2015].
  4. Anselin, L., 2005. *Exploring Spatial Data with GeoDaTM: A Workbook*, Center for Spatially Integrated Social Science, Illinois, and U.S.A. Available at: <https://geodacenter.asu.edu/system/files/geodaworkbook.pdf>. [Accessed 8 March 2014].
  5. Anselin, L., 2016. GeoDA 1.8.1. *GeoDA Workshop Part I*, [pdf] Center for Spatial Data Science, University of Chicago. Available at: <https://spatial.uchicago.edu/content/lectures-luc-anselin>. [Accessed 16 July 2017].
  6. Anselin, L., 2017a. *Moran's I*, [video online]. Available at: <https://www.youtube.com/watch?v=qWQ1Pa5cbtw>. [Accessed 16 July 2017].
  7. Anselin, L., 2017b. *Local Moran*, [video online] Available at: [https://www.youtube.com/watch?v=\\_SmNht4r79k#t=410.646263](https://www.youtube.com/watch?v=_SmNht4r79k#t=410.646263). [Accessed 16 July 2017].
  8. Anselin, L., 2017c. *LISA Forms of Global statistics*, [video online] Available at: <https://www.youtube.com/watch?v=vwzZjCKrfbo#t=688.552916>. [Accessed 16 July 2017].
  9. Aleksynska, M., Eberlein, F., 2016. Coverage of employment protection legislation, *IZA Journal of Labor Policy*, 5(17), pp.1-20. DOI 10.1186/s40173-016-0073-x.
  10. Capello, R., Giovanni, P., 2013. Do Eastern European Regions Move Towards an Endogenous Growth Pattern? A Diachronic Perspective of Regional Success Factors. *GRINCOH Working Paper Series*, no. 1.15. Available at: [http://www.grincoh.eu/media/serie\\_1\\_growth\\_structural\\_change\\_deve/grincoh\\_wp1.15\\_capello\\_perucca.pdf](http://www.grincoh.eu/media/serie_1_growth_structural_change_deve/grincoh_wp1.15_capello_perucca.pdf). [Accessed 9 January 2017].
  11. Cazes, S., Khatiwada, S. and Malo, M., 2012. Employment protection and collective bargaining: beyond the deregulation agenda, *Employment Working Paper*, 133. International Labour Office. Available at: [http://www.ilo.org/wcmsp5/groups/public/---ed\\_emp/documents/publication/wcms\\_191726.pdf](http://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_191726.pdf). [Accessed 22 February 2017].
  12. COM, 2011. 899. *Innovation for a sustainable Future - The Eco-innovation Action Plan (EcoAP)*. Brussels, 15.12.2011. Available at: [https://www.mos.gov.pl/g2/big/2014\\_01/cfaedfdcf2dcfc1c98c72af9c3a79df3b.pdf](https://www.mos.gov.pl/g2/big/2014_01/cfaedfdcf2dcfc1c98c72af9c3a79df3b.pdf). [Accessed 24 November 2016].
  13. COM, 2016. 812 final. *European Structural and Investment Funds 2014-2020, 2016 Summary Report of the programme annual implementation reports, covering*

- implementation in 2014-2015*, Brussels, 20.12.2016, Report from the commission to the European parliament, the council, the European economic and social committee and the committee of the regions. Available at: <http://ec.europa.eu/transparency/regdoc/rep/1/2016/EN/COM-2016-812-F1-EN-MAIN-PART-1.PDF>.
- 14. COM, 2016. 381 final, *A new skills agenda for Europe. Working together to strengthen human capital, employability and competitiveness* {SWD(2016) 195 final}. Available at: <https://ec.europa.eu/transparency/regdoc/rep/1/2016/EN/1-2016-381-EN-F1-1.PDF>. [Accessed 24 November 2016].
  - 15. Dauderstädt, M., Keltek, C., 2016. *No Progress on Social Cohesion in Europe*, [e-book] Available thorough: The Friedrich-Ebert-Stiftung (FES) Library website <http://library.fes.de/pdf-files/id/ipa/12668.pdf>. [Accessed 9 January 2017].
  - 16. Dijkstra, L., Athanasoglou, S., 2015. *The Europe 2020 index: the progress of EU countries, regions and cities to the 2020 targets*. European Commission. Available at: [http://ec.europa.eu/regional\\_policy/sources/docgener/focus/2015\\_01\\_europe2020\\_index.pdf](http://ec.europa.eu/regional_policy/sources/docgener/focus/2015_01_europe2020_index.pdf). [Accessed 9 January 2017].
  - 17. Drucker, P., 2001. The next society. *The Economist*. Available at: <http://www.economist.com/node/770819>. [Accessed 9 January 2017].
  - 18. Dutta, S., Lanvin, B., Wunsch-Vincent, S., (eds.), 2015. *The Global Innovation Index 2015: Effective Innovation Policies for Development*, Fontainebleau, Ithaca, and Geneva. Cornell University, INSEAD, and WIPO. Available at: <https://www.globalinnovationindex.org/userfiles/file/reportpdf/GII-2015-v5.pdf>. [Accessed 9 January 2017].
  - 19. European Commission, 2016. *European Semester Thematic Fiche Employment Protection Legislation*. Available at: [http://ec.europa.eu/europe2020/pdf/themes/2016/employment\\_protection\\_legislation\\_201605.pdf](http://ec.europa.eu/europe2020/pdf/themes/2016/employment_protection_legislation_201605.pdf). [Accessed 21 November 2016].
  - 20. Florida, R., 2002. *The Rise of the Creative Class*, New York: Basic Books.
  - 21. Gallehr, S., Lambing, J., Merkle, G., Schuhmacher H., 2009. *A new industrial revolution: eco-innovation and the Humboldtian approach*, CEDEFOP. Future skill needs in the green economy, pp.82-88. Available at: [https://www.academia.edu/13111283/A\\_new\\_industrial\\_revolution\\_eco-innovation\\_and\\_the\\_Humboldtian\\_approach](https://www.academia.edu/13111283/A_new_industrial_revolution_eco-innovation_and_the_Humboldtian_approach). [Accessed 28 July 2017].
  - 22. ICLS-Resolution-I, 2013. *Resolution I. Resolution concerning statistics of work, employment and labour underutilization*. [STATI-131114-1]-En.docx Available at <[http://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/normativeinstrument/wcms\\_230304.pdf](http://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/normativeinstrument/wcms_230304.pdf)>. [Accessed 17 September 2016].
  - 23. ILO, 2013. Revision of the International Classification of Status in International Conference of Labour Statisticians. 2 to 11 October 2013 Employment (ICSE-93). ILO Department of Statistics. Available at: [http://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/meetingdocument/wcms\\_223924.pdf](http://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/meetingdocument/wcms_223924.pdf). [Accessed 17 September 2016].
  - 24. Johnson, C., 2016. The Sustainability Commons: Using Open Source Design to Address Climate Change. Available at: <https://www.shareable.net/blog/the-sustainability-commons-using-open-source-design-to-address-climate-change>. [Accessed 10 July 2017].
  - 25. Krugman, P., Venables A. J., and Fujita, M., 1999. *The Spatial Economy. Cities, Regions, and International Trade*, The MIT Press Cambridge, Massachusetts

- London, England. Available at: [http://geografi.ums.ac.id/ebook/The\\_Spatial\\_Economy--Fujita\\_\\_Krugman\\_\\_Venables.pdf](http://geografi.ums.ac.id/ebook/The_Spatial_Economy--Fujita__Krugman__Venables.pdf). [Accessed 22 October 2014].
26. Ladias, C., Hasanagas, N., Papadopoulou, E., 2011. Conceptualizing macroregions: Viewpoints and tools beyond NUTS classification. *Studies in Agricultural Economics*, 113(2), pp:138-144. [online] Available at: <https://www.aki.gov.hu/studies/2011>. [Accessed 6 July 2017].
27. Marin, G. and Lotti, F., 2015. Productivity Effects of Eco-innovations. Using Data on Eco-patents, *SEEDS Working Paper 17/2015*, September 2015. Available at: <http://www.sustainability-seeds.org/papers/RePec/srt/wpaper/1715.pdf>. [Accessed 21 November 2016].
28. Moretti, E., 2012. *The New Geography of Jobs*. New York: Houghton Mifflin Harcourt.
29. OECD, 2012. *The jobs potential of a shift towards a low-carbon economy*. Final report for the European Commission, DG Employment 4th June 2012. Available at: <http://www.oecd.org/els/emp/50503551.pdf>. [Accessed 23 November 2016].
30. OECD, 2017. Future of Work and Skills, Organisation for Economic Co-operation and Development (OECD), Paper presented at the 2nd Meeting of the G20 Employment Working Group, 15-17 February 2017, Hamburg, Germany. Available at: [http://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---ilo-berlin/documents/genericdocument/wcms\\_556984.pdf](http://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---ilo-berlin/documents/genericdocument/wcms_556984.pdf).
31. OECD, 2017. OECE Better Policies for better lives. O4. Greenhouse gas intensity. [online]. Available at: <https://www.oecd.org/innovation/green/toolkit/o4greenhousegasintensity.htm>. [Accessed 10 July 2016].
32. Productivity Commission, 2016. (Australian Government), Digital Disruption: What do governments need to do?, Commission Research Paper, Canberra. Available at: <https://www.pc.gov.au/research/completed/digital-disruption/digital-disruption-research-paper.pdf>. [Accessed 19 September 2017].
33. Price, D.A., 2012. Cities Growing Apart. Book Review for The New Geography of Jobs by E. Moretti, *Region Focus | Second / Third Quarter | 2012*. pp.43.
34. Rayment, M., Pirlmaier, E., De Ceuster, G., Hinterberger, F., Kuik, O., Gower, H.L., Christine Polzin, Varma, A., 2009. The economic benefits of environmental policy A project under the Framework contract for economic analysis ENV.G.1/FRA/2006/0073 - 2nd FINAL REPORT. Available at: [http://ec.europa.eu/environment/enveco/economics\\_policy/pdf/report\\_economic\\_benefits.pdf](http://ec.europa.eu/environment/enveco/economics_policy/pdf/report_economic_benefits.pdf). [Accessed 9 January 2017].
35. Reich, R.R., 1991. *The Work of Nations: Preparing Ourselves for 21th Century Capitalism*. New York: Vintage Books.
36. Rennings, K., 1998. Towards a Theory and Policy of Eco-Innovation -Neoclassical and (Co-) Evolutionary Perspectives, Center for European Economic Research (ZEW). Available at: <ftp://zinc.zew.de/pub/zew-docs/dp/dp2498.pdf>. [Accessed 9 January 2017].
37. Romih, D., Festić, M., 2008. Labour Market Flexibility and Employment Protection Legislation in the New EU Member States Working Paper n. 24 The authors work at the Economic Institute of the Law School University of Maribor, Faculty of Economics and Business, International Institute of Political science of Masaryk University, IIPS, p.8. Available at: [http://www.iips.cz/userfiles/file/wp\\_24\\_labour-market.pdf](http://www.iips.cz/userfiles/file/wp_24_labour-market.pdf). [Accessed 21 November 2016].

38. Serban, A.C., 2012. Employment Protection Legislation and Atypical Employment, The 6th International Days of Statistics and Economics, Prague, September 13-15, 2012. [Accessed 21 November 2016].
39. stats.govt.nz, 2016. NZ progress indicators. Greenhouse gas intensity. [online] Available at: [http://www.stats.govt.nz/browse\\_for\\_stats/snapshots-of-nz/nz-progress-indicators/home/environmental/greenhouse-gas-intensity.aspx](http://www.stats.govt.nz/browse_for_stats/snapshots-of-nz/nz-progress-indicators/home/environmental/greenhouse-gas-intensity.aspx) . [Accessed 10 July 2016].
40. Török, A., Csuka, G., Kovács B., Veres A., 2013. The “resurrection” of industrial policy in the European Union and its impact on industrial policy in the New Member Countries, Working Paper no 26. WWW Europe, [www.foreurope.eu](http://www.foreurope.eu/fileadmin/documents/pdf/Workingpapers/WWWforEurope_WPS_noo26_MS69.pdf). Available at: [http://www.foreurope.eu/fileadmin/documents/pdf/Workingpapers/WWWforEurope\\_WPS\\_noo26\\_MS69.pdf](http://www.foreurope.eu/fileadmin/documents/pdf/Workingpapers/WWWforEurope_WPS_noo26_MS69.pdf). [Accessed 21 November 2016].
41. Turrini, A., Koltay, G., Pierini, F., Goffard, C. and Kiss, A., 2015. A decade of labour market reforms in the EU: insights from the LABREF database, *IZA Journal of Labor Policy* 2015:12. DOI: 10.1186/s40173-015-0038-5, <http://izajolp.springeropen.com/articles/10.1186/s40173-015-0038-5>. [Accessed 21 November 2016].
42. Umpherson, J., 2015. *Richard Florida's Creative Class: Why creativity is the new economy and what it means for YOUR community*. Available at <<http://economicdevelopment.org/2015/10/richard-floridas-creative-class-why-creativity-is-the-new-economy-and-what-it-means-for-your-community/>>.
43. WEF, 2016a. World Economic Forum (WEF), 2016. The Global Risks, Report 2016, 11th Edition, Geneva. Available at: [http://www3.weforum.org/docs/GRR/WEF\\_GRR16.pdf](http://www3.weforum.org/docs/GRR/WEF_GRR16.pdf). [Accessed 27 November 2016].
44. WEF, 2016b. World Economic Forum, 2016. The Future of Jobs Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution, January 2016, Global Challenge Insight Report. Available at: [http://www3.weforum.org/docs/WEF\\_Future\\_of\\_Jobs.pdf](http://www3.weforum.org/docs/WEF_Future_of_Jobs.pdf). [Accessed 27 November 2016].