

Regional Economic Geography with Externalities, Congestion, and Fiscal Policies in a Small-Open Growth Economy

PDF (Size:314KB) PP. 201-209 DOI : 10.4236/jgis.2010.24028

Author(s)

Wei-Bin Zhang

ABSTRACT

This paper develops a two-regional growth model with amenity, capital accumulation and regional public goods with public goods and fiscal policies. The economy consists of two regions and each region consists of the industrial sector and public sector. The industrial sector provides goods in perfectly competitive markets. The public sector, which is financed by the regional government' s tax incomes, supplies regional public goods. The public goods affect both firms and households. We show how to find equilibrium values of the dynamic system and simulate model. Then, we carry out comparative statics analysis with regard to parameter changes in tax rates, congestion and amenity. Our comparative statics analysis provides some important insights. For instance, a main difference between the effects of increasing the two regions' tax rates on the output is that as the technologically advanced region' s (the other region' s) tax rate on the industrial sector is increased, the national industrial output, national capital employed by the economy, and the national wealth are increased (reduced). In the region which increases the tax rate, the wage rate, consumption and wealth per capita, output per labor force, the population, and land rent are increased, and the corresponding variables in the other region are reduced.

KEYWORDS

Small-Open Interregional Economy, Regional Fiscal Policies, Capital Accumulation, Endogenous Amenity, Public Goods

Cite this paper

W. Zhang, "Regional Economic Geography with Externalities, Congestion, and Fiscal Policies in a Small-Open Growth Economy," *Journal of Geographic Information System*, Vol. 2 No. 4, 2010, pp. 201-209. doi: 10.4236/jgis.2010.24028.

References

[1]

H. W. Richardson, " Regional Growth Theory," Macmillan, London, 1977.

[2]

M. Fujita, P. Krugman and A. Venables, " The Spatial Economy," MIT Press, Cambridge, 1999.

[3]

Y. Higano, P. Nijkamp and J. Poot, Eds., " The Region in the New Economy: An International Perspective on Regional Dynamics in the 21st Century," Ashagate, London, 2002.

[4]

J. V. Henderson and H. G. Wang, " Urbanization and City Growth: The Role of Institutions," Regional Science and Urban Economics, Vol. 37, No. 5, 2007, pp. 283-313.

[5]

W. B. Zhang, " International Trade Theory: Capital, Knowledge, Economic Structure, Money and Prices over Time and Space," Springer, Berlin, 2008.

[6]

W. Isard, " Some Empirical Results and Problems of Regional Input-Output Analysis," In: W. Leontief, et al., Studies in the Structure of the American Economy, Oxford University Press, New York, 1953.

[7]

G. J. D. Hewings and R. C. Jensen, " Regional, Interregional and Multiregional Input-Output Analysis," In: P. Nijkamp, Ed., Handbook of Regional and Urban Economics, North-Holland, Amsterdam, 1986.

JGIS Subscription

Most popular papers in JGIS

About JGIS News

Frequently Asked Questions

Recommend to Peers

Recommend to Library

Contact Us

Downloads:

135,264

Visits:

287,794

Sponsors, Associates, and Links >>

- [8] D. F. Batten, " The Interregional Linkages between National and Regional Input-Output Models," International Regional Science Review, Vol. 7, No. 1, 1982, pp. 53-67.
- [9] P. Boomsma and J. Oosterhaven, " A Double-Entry Method for the Construction of Bi-Regional Input-Output Tables," Journal of Regional Science, Vol. 32, No. 3, 1992, pp. 269-284.
- [10] P. Canning and Z. Wang, " A Flexible Mathematical Programming Model to Estimate Interregional Input-Output Accounts," Journal of Regional Science, Vol. 45, No. 3, 2005, pp. 539-563.
- [11] J. Parr and G. Hewings, " Spatial Interdependence in a Metropolitan Setting," Spatial Economic Analysis, Vol. 2, No. 1, 2007, pp. 8-22.
- [12] E. A. Haddad, J. Bonet, G. J. D. Hewings and F. S. Perobelli, " Spatial Aspects of Trade Liberalization in Combia: General Equilibrium Approach," Banco de la Republica de Colombia, Borradores de Economia, 2008.
- [13] W. B. Zhang, " A Multi-Region Model with Capital Accumulation and Endogenous Amenities," Environment and Planning A, Vol. 39, No. 9, 2007, pp. 2248-2270.
- [14] T. Eicher and S. Turnovsky, " Scale, Congestion and Growth," Economica, Vol. 67, No. 267, 2000, pp. 325-346.
- [15] M. A. Gómez, " Fiscal Policy, Congestion, and Endogenous Growth," Journal of Public Economic Theory, Vol. 10, No. 1, 2008, pp. 595-622.