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Spatial overflow of financial decentralization on social welfare in the provinces of Iran during the years 2006-2018 Approach: Spatial econometrics

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EXTENDED ABSTRACT

INTRODUCTION

Improving global social welfare remains a top priority on the global development agenda as policymakers and international development partners around the world strive to meet the 2030 Sustainable Development Goals. (Ogoni et al. 2016). Since the general costs of an area can affect adjacent areas and spatial overflows may increase the problem of free riding.In recent decades, the use of the word decentralization has become very common. Financial decentralization means the transfer of decision-making power over the combination of expenditures and revenues from the central government to local governments. The classic of decentralization is that regional and local governments have a better understanding of basic needs and more knowledge in identifying market failures and public preferences. Which brings a higher level of welfare and optimizes social welfare better than the central government. (Ander, 2020).

METHODOLOGY

this study examines the spatial overflow of financial decentralization policy on social welfare. It is used in the provinces of the country in the period of 2006-2018.

FINDINGS

Estimating the **sac** model

	Model 1 (income decentralization)			Model 2 (expenditure decentralization)		
Variable	total effect	direct effect	indirect effect	total effect	direct effect	indirect effect
	0/039	0/037	0/0134	-	-	-
lfder	(0/033)	(0/037)	(0/00)	-	-	-
	[3/03]	(2/67)	[2/18]	-	-	-
	-			49/53	48/156	1/379
Lfdex	-			(0/001)	(0/053)	(0/00)
	-			(4/21)	(2/21)	(2/16)
	-	-	-	-24/76	-0/68	-24/076
$Lfdex^2$	-	-	-	(0/001)	(0/001)	(0/001)
	-0/031	-0/030	-0/0011	-0/035	-0/034	-0/0009
Lf	(0/001)	(0/001)	(0/001)	(0/001)	(0/001)	(0/001)
	(-3/38)	(-2/38)	(-3/15)	(-2/24)	(-3/2)	(-3/15)
	0/45	0/0159	0/4345	0/55	0/1530	0/534
lurbn	(0/001)	(0/001)	(0/001)	(0/001)	(0/001)	(0/001)
linc	1/048	1/011	0/037	1/034	1/0055	0/028
	(0/003)	(0/000)	(0/000)	(0/003)	(0/00)	(0/00)
	0/333	0/3213	0/01179	0/48	0/471	0/135
ledj	(0/00)	(0/876)	(0/01)	(0/41)	(0/45)	(0/84)

CONCLUSION

The results show that by increasing decentralization, they can improve their social welfare; in other words, over-optimal financial decentralization will have an adverse effect on social welfare.

Reference

Abounoori, E., & Kashefi, A. (2018). Economic growth of Iranian provinces. *Macroeconomics Research Letter, 13*(25), 154–180. https://doi.org/10.22080/iejm.2018.2038 (in Persian)

Adam, A., Mantos, D., Delis, P., & Kamas, K. (2012). Fiscal decentralization and public sector efficiency: Evidence from OECD countries. *Economics of Governance, 23*(2), 32–121.

Agan, Y., Sevinc, E., & Orhan, M. (2016). Impact of main macroeconomic indicators on happiness. *European Journal of Economic and Political Studies, 2*(2), 13–21.

Ahlburg, D. A., Kelley, A. C., & Mason, K. O. (1996). *The impact of population growth on well-being in developing countries*. Springer Science & Business Media.

Ahmad, I. (2016). Assessing the effects of fiscal decentralization on the education sector: A cross-country analysis. *The Lahore Journal of Economics, 21*(2), 53–82.

Ahmadi, M., & Alikhan Gorgani, R. (2021). The vertical balance, financial decentralization, and regional development in Iran's provinces. *The Economic Research, 21*(1), 147–182. Retrieved from http://ecor.modares.ac.ir/article-18-43352-en.html (in Persian)

Ahmadvand, N. , Alizadeh, M. , fotros, M. H. and Delfan, M. (2025). The Role of Business Cycles in the Impact of Government Social and Cultural Expenditures on Social Welfare (NARDL Approach). *Quarterly Journal of Quantitative Economics (JQE), 21*(4), 122-162. doi: 10.22055/jqe.2022.38986.2429 (in Persian).

Alizade, S., Alizadeh, M., Shaghaghi Shahri, V., & Delfan, M. (2020). Spatial analysis of the effect of financial decentralization on poverty: Study of the country's provinces. *Quarterly Journal of Applied Theories of Economics, 7*(3), 185–214. https://doi.org/10.22034/ecoj.2020.12232 (in Persian)

Arends, H. (2020). The dangers of fiscal decentralization and public service delivery: A review of arguments. *Politische Vierteljahresschrift, 61*(3), 599–622.

Arrow, K. J. (1969). The organization of economic activity: Issues. In *The analysis and evaluation of public expenditures: The PPB system* (Pt. 1).

Asgari, A., & Akbari, N. (2001). Spatial econometrics methodology: Theory and application. *Isfahan University Journal*, *12*, 93–122. (in Persian)

Bahl, R., & Bird, R. M. (2018). *Fiscal decentralization and local finance in developing countries*. Edward Elgar Publishing.

Bajelan, A. A., Karimi Potanlar, S., & Jafari Samimi, A. (2017). The effect of fiscal decentralization on inflation in Iran: An application of panel smooth transition regression model. *Journal of Econometric Modelling*, *2*(1), 9–32. https://doi.org/10.22075/jem.2017.2652 (in Persian)

Bardhan, P., & Mookherjee, D. (2006). Decentralisation and accountability in infrastructure delivery in developing countries. *The Economic Journal*, *116*(508), 101–127.

Bayoh, I., Irwin, E. G., & Haab, T. (2006). Determinants of residential location choice: How important are local public goods in attracting homeowners to central city locations? *Journal of Regional Science*, *46*(1), 97–120.

Bird, R. M., & Vaillancourt, F. (2006). Introduction and summary. In R. M. Bird & F. Vaillancourt (Eds.), *Perspectives on fiscal federalism*. Washington, DC: World Bank.

Brennan, G., & Buchanan, J. M. (1980). *The power to tax: Analytic foundations of a fiscal constitution*. Cambridge University Press.

Canare, T. (2021). Decentralization and welfare: Theory and an empirical analysis using Philippine data. *Public Sector Economics*, *45*(1), 93–123.

Cafaie, M., & Mehdizadeh Dehkordi, A. (2013). The impact of price changes on household welfare. *Journal of Economics and Modeling, 4*(14–15), 75–96. (in Persian)

Casey, T., & Castello, D. (2015). Local government and public service performance: Evidence from European regions. *Regional Studies, 49*(8), 1272–1285.

Central Bank of Iran. (2019). *Annual macroeconomic statistics of Iran 1385–1397*. Retrieved from https://www.cbi.ir (in Persian)

Chete, L. N. (2002). Fiscal decentralization and macroeconomic management in Nigeria. *African Development Review, 14*(2), 216–234.

Dadgar, Y., & Nazari, M. (2011). The effect of financial decentralization on economic growth in Iran. *Journal of Economic Research, 46*(1), 1–24. (in Persian)

Davoodyan, M., & Amini, A. (2018). The impact of fiscal decentralization on income distribution: Evidence from Iran's provinces. *Quarterly Journal of Applied Theories of Economics, 5*(4), 1–26. (in Persian)

De Mello, L. R. (2000). Fiscal decentralization and intergovernmental fiscal relations: A cross-country analysis. *World Development, 28*(2), 365–380.

Dollar, D., & Kraay, A. (2002). Growth is good for the poor. *Journal of Economic Growth, 7*(3), 195–225.

Ebel, R. D., & Yilmaz, S. (2002). On the measurement and impact of fiscal decentralization. *World Bank Policy Research Working Paper* No. 2809.

Ezati Shourgholi, J., & Khodavaisi, A. (2019). The effect of exchange rate pass-through on inflation in Iran: NARDL approach. *Journal of Monetary and Banking Research, 12*(35), 27–58. (in Persian)

Farhadi, M., & Azizkhani, M. (2015). The effects of fiscal decentralization and corruption on economic growth: Evidence from OECD countries. *Public Choice, 162*(3), 517–542.

Farzanegan, M. R., & Lessmann, C. (2013). Fiscal decentralization and provincial disparities: Evidence from Iran. *Journal of Development Studies, 49*(4), 546–563.

Fotros, M. H., & Zanganeh, H. (2006). Fiscal federalism and decentralization: An economic analysis. *Journal of Economic Essays, 3*(5), 1–34. (in Persian)

Friedman, M. (1991). Market mechanisms and central economic planning. *Cato Journal, 11*(2), 37–50.

Gemmell, N., Kneller, R., & Sanz, I. (2013). Fiscal decentralization and economic growth: Spending versus revenue decentralization. *Economic Inquiry, 51*(4), 1915–1931.

Geys, B., & Moesen, W. (2009). The determinants of local public expenditures: A meta-analysis. *Public Choice, 138*(3), 329–355.

Hadizadeh Moghadam, A., & Shaghaghi Shahri, V. (2018). The effect of fiscal decentralization on economic growth of Iran's provinces. *Journal of Economic Growth and Development Research, 8*(32), 127–146. (in Persian)

Haidar, J. I. (2012). Fiscal policy and economic growth: Empirical evidence from OECD countries. *Economics Letters, 117*(1), 15–18.

Hosseini, M., & Pazhouyan, J. (2017). The effect of fiscal decentralization on unemployment rate in Iran's provinces: A panel data approach. *Journal of Macroeconomics Research Letter, 12*(24), 221–242. (in Persian)

Hulme, D., & Shepherd, A. (2003). Conceptualizing chronic poverty. *World Development, 31*(3), 403–423.

Jalil, A., & Feridun, M. (2011). Government size and economic growth in China: An empirical investigation. *Applied Economics, 43*(2), 234–243.

Izadi, M. , Shakeri Hosein Abad, A. , A. Milani, M. & Mohammadi,, T. (2023). The Formation of Bubble Price in the Stock Market and Its effect on the Iran Business Cycles. *Quarterly Journal of Quantitative Economics (JQE), 20*(2), 72-99. doi: 10.22055/jqe.2021.37190.2371 (in Persian).

Kargar, B., & Asadian, M. (2019). The spatial effects of infrastructure development on regional inequality in Iran. *Journal of Spatial Economic Research, 6*(1), 155–178. (in Persian)

Khodaparast Shirazi, J., & Esmaili, M. (2020). The spatial spillover effects of economic growth in Iran's provinces. *Journal of Economic Spatial Analysis, 8*(2), 1–26. (in Persian)

Kis-Katos, K., & Sjahrir, B. S. (2017). The impact of fiscal and political decentralization on local public investment in Indonesia. *Journal of Comparative Economics, 45*(2), 344–365.

Lessmann, C. (2012). Regional inequality and decentralization—An empirical analysis. *Environment and Planning A, 44*(6), 1363–1388.

Lotfi, S., & Bayati Khatibi, M. (2016). Measurement and analysis of social welfare inequality in Iran's provinces. *Journal of Social Welfare Quarterly, 16*(61), 27–54. (in Persian)

Musgrave, R. A., & Musgrave, P. B. (1989). *Public finance in theory and practice*. McGraw-Hill.

Oates, W. E. (1999). An essay on fiscal federalism. *Journal of Economic Literature, 37*(3), 1120–1149.

Qorbaninejad, R., & Farahani, Y. (2017). The impact of fiscal decentralization on income inequality in Iran's provinces: Spatial

econometrics approach. *Journal of Economic Research, 52*(4), 49–78. (in Persian)

Rodríguez-Pose, A., & Ezcurra, R. (2010). Does decentralization matter for regional disparities? A cross-country analysis. *Journal of Economic Geography, 10*(5), 619–644.

Shah, A. (2004). Fiscal decentralization in developing and transition economies: Progress, problems, and the promise. *World Bank Policy Research Working Paper* No. 3282.

Shah, A. (2006). A practitioner's guide to intergovernmental fiscal transfers. In R. M. Bird & F. Vaillancourt (Eds.), *Perspectives on fiscal federalism* (pp. 215–249). Washington, DC: World Bank. Shaghaghi Shahri, V., Delfan, M., & Alizadeh, M. (2021). The effect of fiscal decentralization on social welfare with the role of income inequality in Iran's provinces. *Quarterly Journal of Quantitative Economics (JQE), 18*(3), 1–30. (in Persian)

Tiebout, C. M. (1956). A pure theory of local expenditures. *Journal of Political Economy, 64*(5), 416–424.