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Jan Oosterhaven

# Rethinking Input-Output Analysis

A Spatial Perspective



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# Preface: History and Acknowledgements

The origin of this book dates back to my lecture notes for the first regional economics course at the University of Groningen, taught in 1976. The last revision of the resulting Dutch language *Syllabus Ruimtelijke Economie* appeared in 2003. An English language extension of its input-output (IO) part was written for the educational section of the website of the IIOA with my dear colleague Dirk Stelder in 2007. The theoretical parts of this book benefited further from the Handbook articles I wrote with Karen Polenske in 2009 for Edward Elgar and with Geoff Hewings in 2014 for Springer, while all of this book benefited from my cooperation with a series of colleagues and Ph.D.-students. In the order in which my work with them is used in this book, these are Fernando Escobedo (Sect. 3.1.2), Piet Boomsma (3.1.3), Jouke van Dijk and Henk Folmer (4.2), Bjarne Madsen (5.2), Maaïke Bouwmeester and Johannes Többen (7.2), Umed Temursho (8.1.1), Gerard Eding and Dirk Stelder (8.1.2), Jan van der Linden, Jiansuo Pei and Erik Dietzenbacher (8.2.2). Finally, I thank an anonymous reviewer and Eva Mulder for useful comments on drafts for this book. Naturally, the final text is my sole responsibility.

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# Variables and Coefficients

- $\Delta$  Absolute change (first order difference)
- a Intermediate input coefficients by industry
- b Intermediate output coefficients by industry, trade balance, final demand bridge coefficients
- c Primary input coefficients by industry, commuting coefficients by industry
- d Final output coefficients by industry, total demand
- e External exports
- f Local final demand by category, final demand preference (technical) coefficients
- g Ghosh-inverse coefficients
- h Household consumption, product heterogeneity
- i Summation vector
- j Employment (jobs)
- k Consumption expenditure coefficients
- l Leontief-inverse coefficients, employment (labour) coefficients
- m Import and self-sufficiency ratios
- n Inactive people without benefits
- o Other value added
- p Prices, industry product mix ratios
- q Total product supply/demand, household consumption/industry output ratios
- r Industry market shares in product supply
- s Product supply by industry, industry sales ratios, savings rates
- t Trade volumes, export coefficients, tax rates
- u Product use by industry, unemployed people
- v Primary inputs (value added) by industry
- w Wage income, wage rate
- x Total industry input/output
- y Total final demand by category, gross income
- z Intermediate inputs/outputs