

IAB-Bibliothek

354

Die Buchreihe des Instituts für Arbeitsmarkt- und Berufsforschung

1

Spatial Dependence and Heterogeneity in Empirical Analyses of Regional Labour Market Dynamics

Norbert Schanne

Dissertationen

wbv

Contents

Preface	7
List of Figures	9
List of Tables	10
1 Introduction	11
2 Geography Matters	19
2.1 Spatial structure by workplace – New Economic Geography	21
2.2 Structure by residential location – Urban Labour Economics	22
3 Spatial Econometrics	27
3.1 Introduction	29
3.2 The classical linear regression model – and looking beyond	30
3.3 Spatial autocorrelation: Mainstream models	37
3.3.1 Spatial lag model	37
3.3.2 Spatial error model	39
3.3.3 Spatial Durbin model and SARAR-model	41
3.4 Spatial dependence beyond the mainstream	43
3.4.1 Spatial filter procedures	43
3.4.2 Newey-West type variance-covariance estimators	46
3.5 Spatial heterogeneity	48
3.5.1 Impact measures from spatial lag and Durbin model	48
3.5.2 Spatial expansion	48
3.5.3 Spatial regimes	49
3.5.4 Geographically weighted regression	50
3.5.5 Coefficient expansion with eigenvector spatial filters	51
3.6 Comments and concluding remarks	51
3.A Consistency and bias of estimators for β	52
4 Persistence of Regional Unemployment	55
Abstract	57
4.1 Introduction	59
4.2 Analytical design of the model	62
4.2.1 The traditional approach	62
4.2.2 Spatial filtering	64

4.2.3	An adjustment-process spatial filter	67
4.2.4	Spatial regimes	68
4.3	Data	69
4.4	Empirical application	71
4.4.1	Fixed Effects and Spatial Filter estimation	71
4.4.2	Spatial Filter/Fixed Effects in the autoregressive component	77
4.4.3	Adjustment to shocks according to the spatial regimes	83
4.4.4	Concluding remarks: Persistence of unemployment	85
4.5	Conclusions	86
4.A	Comparative model overview and further statistics	88
5	Forecasting Regional Labour Markets	89
	Abstract	91
5.1	Introduction	93
5.2	The data and their statistical properties	96
5.3	Regional labour-market dynamics: A sketch	98
5.4	Specifying a system of regional labour markets	99
5.4.1	The Global VAR formulation	99
5.4.2	Regional dominance in cross-sectional dependence	103
5.4.3	Common trends: Cointegration and nonstationary common factors	107
5.5	Selection and inclusion of indicators	111
5.6	Forecast evaluation	115
5.6.1	Forecast construction and evaluation method	115
5.6.2	General forecast performance and the contribution of spatial information	116
5.6.3	Forecast comparison across the indicators	124
5.6.4	Development of forecast errors over time	126
5.7	Conclusion	128
5.A	Exponent of divergence – simulation	130
5.B	Figures: Development of forecast accuracy	132
6	Do they Run with the Pack?	141
	Abstract	143
6.1	Introduction	145
6.2	Data	149

6.2.1	The FEA Management Survey	149
6.2.2	Prospective public information	153
6.3	Empirical design	155
6.3.1	The basic model of labour market expectations	155
6.3.2	Estimation of spatially autoregressive panels	158
6.3.3	Identification in nonlinear regression models	161
6.4	Expectation formation: Evidence for herding	163
6.4.1	Results	163
6.4.2	Robustness	166
6.5	Social learning or joint adaption to news?	168
6.6	Is there an informational cascade?	170
6.7	Are sentiments more rational due to herding?	174
6.8	Conclusion	177
6.A	Additional information regarding the survey	179
7	Resume	181
Bibliography		187
Abstract		203
Kurzfassung		204