

Contents

1	Introduction	1
1.1	Motivation	1
1.2	Background, Outline, and Research Strategies	5
2	Data Set and Descriptive Analysis	11
2.1	Mannheim Innovation Panel	11
2.1.1	Survey Methodology	11
2.1.2	Innovation Concept	20
2.1.3	Definition of Innovation Indicators	24
2.1.4	Surveyed Information	26
2.2	Additional Data Sources	27
2.3	Descriptive Analysis: Innovation Activities in Germany	28
	Appendix A1: Tables	32
	Appendix A2: Examples of Product and Process Innovations	35
3	Employment Effects of Innovation Activities	37
3.1	Introduction	37
3.2	Theoretical Considerations	40
3.3	Survey: Previous Empirical Findings	43
3.4	Theoretical and Econometric Model	45
3.4.1	Basic Model	45
3.4.2	Extended Model	50
3.5	Empirical Analysis for Germany	51
3.5.1	Data and Descriptive Analysis	52
3.5.2	Estimation Method	58
3.5.3	Econometric Results	63
3.5.4	Decomposition of Employment Growth	71
3.5.5	Sensitivity Analysis	75
3.6	International Comparison Between France, Spain, the UK and Germany	79
	3.6.1 Data and Descriptive Analysis	82

3.6.2	Empirical Results	89
3.7	Summary and Discussion of Results	98
	Appendix B	103
4	Productivity Effects of Innovation Activities	109
4.1	Introduction	109
4.2	Literature Review	111
4.2.1	Innovation Input	111
4.2.2	Innovation Output	115
4.2.3	Productivity	116
4.3	Econometric Model	123
4.4	Data Set	125
4.5	Empirical Implementation	127
4.5.1	Innovation Input	127
4.5.2	Innovation Output	129
4.5.3	Productivity	130
4.6	Descriptive Analysis	131
4.7	Econometric Analysis	135
4.8	Conclusion	144
	Appendix C	146
5	Persistence Effects of Innovation Activities	151
5.1	Introduction	151
5.2	Theoretical Explanations	154
5.3	What Do We Know So Far? Previous Empirical Findings	156
5.4	Data Set	158
5.5	Measurement Issues	160
5.6	Stylised Facts	161
5.7	Econometric Analysis	168
5.7.1	Econometric Model	168
5.7.2	Estimation Method	169
5.7.3	Empirical Model Specification	173
5.7.4	Econometric Results	178
5.7.5	Sensitivity Analysis	188
5.8	Conclusion	192
	Appendix D1: Average Partial Effects	194
	Appendix D2: Tables	197
6	Summary and Conclusion	201
	Abbreviations	205
	List of Figures	207
	List of Tables	209

References 213