

Contents

List of Figures	9
List of Tables	10
1 INTRODUCTION	11
2 THE ECONOMICS OF TRANSITION	15
2.1 Data Limitations	16
2.2 Macroeconomic development	18
2.3 Measuring Reform Progress	22
2.4 Theory and hypotheses	24
2.4.1 Transition theory	25
2.4.2 Traditional growth theory	28
2.5 Results and interpretation	33
3 A NON-ECONOMIC PERSPECTIVE ON TRANSITION: IS TRANSITION A KILLER?	37
3.1 The health status pre-transition and during transition - an overview	39
3.1.1 Pre-transition	39
3.1.2 Transition	41
3.2 Theoretical considerations	44
3.3 Empirical assessment	47
3.3.1 Determinants of the level of health (world sample)	47
3.3.2 The effect of transition on health	52
3.3.2.1 Was there any effect?	52
3.3.2.2 Determinants of health during transition	55
3.4 Conclusion	68
4 IS TRANSITION OVER?	71
4.1 Data	73
4.2 Results	74
4.2.1 A snapshot after(?) transition	74
4.2.1.1 Industrial structure	80
4.2.1.2 Capital investment	82
4.2.1.3 Financial system	83
4.2.1.4 Legal and institutional framework	85
4.2.2 A fishing expedition	87
4.2.3 A note on the adjustment over time	89
4.3 Concluding remarks	91

5	THE CEECS' GROWTH PERSPECTIVES - CONVERGENCE OR DIVERGENCE?	93
5.1	Exogenous growth theory	94
5.1.1	The Solow growth model and conditional convergence	97
5.1.2	The Solow growth model and not necessarily conditional convergence	102
5.1.3	Human capital and a potential escape from the low-level equilibrium	106
5.1.3.1	Human capital and multiple equilibria	107
5.1.3.2	Human capital in the CEECs	111
5.1.4	The Overlapping generations growth model	114
5.1.5	Further sources of club convergence in the Solow model	119
5.1.5.1	Variable Saving Rates	119
5.1.5.2	Non-diminishing returns to capital for some range of capital	120
5.1.5.3	Endogenous fertility	120
5.1.6	Case study in exogenous growth: energy and growth in transition economies	121
5.1.6.1	The energy sector of the CEECs before transition	122
5.1.6.2	The energy sector of the CEECs in transition	124
5.1.6.3	Energy and the economy	128
5.1.6.4	Energy in a neoclassical growth model	131
5.1.6.5	Conclusion	139
5.2	Endogenous growth theory - incentives to grow	141
5.2.1	The 'broad capital' approach in new growth theory	142
5.2.2	The 'endogenous innovation' approach in new growth theory	143
5.2.3	Case study in endogenous growth: R&D and imitation in transition economies	146
5.2.3.1	The domestic R&D sector in transition	146
5.2.3.1.1	R&D-Input	147
5.2.3.1.2	R&D Output	149
5.2.4	Technological backwardness, imitation and economic growth	153
5.2.4.1	The assumptions	155
5.2.4.2	The steady-state	158
5.2.4.3	Transitional dynamics	160
5.2.4.3.1	General model	160
5.2.4.3.2	Special case - human capital intensive education and knowledge production	164
5.2.4.4	Conclusion and policy implications	166
6	SUMMARY AND CONCLUSION	167
	APPENDIX	171
	REFERENCES	179

List of Figures

Figure	
2.1	The path of output in transition (1989=100) 15
2.2	Reform policy and GDP growth 27
2.3	Structural characteristics and growth 29
2.4	Inflation and GDP growth 32
3.1	Changes (%) in life expectancy at birth 1989-95 41
3.2	Standardised death rates due to circulatory disease (age 0-64 per 10000) 43
3.3	Standardised death rates due to ischeamic heart disease (age 0-64 per 10000) 43
3.4	Life expectancy, infant mortality and the level of economic development 48
3.5	Divergence in crude death rates 64
3.6	Actual vs. fitted mortality development (CDR20-39 male) 65
4.1	CEE outliers and reform progress 89
5.1	Unique equilibrium in the Solow model 100
5.2	Multiple equilibria in the Solow model 105
5.3	Multiple equilibria in the Mankiw/Romer/Weil model 109
5.4	Declining relative wage for teachers 113
5.5	A-E: Variety of development scenarios in the OLG model 118
5.6	Energy intensity and GNP p.c. PPP 126
5.7	Equilibrium in the energy economy 133
5.8	The effect of an increase in the energy price 136
5.9	Transitional dynamics in the energy and growth model 137
5.10	GERD as percentage of GDP 148
5.11	National patent applications 150
5.12	Inventiveness coefficient 151
5.13	Dependency ratio 151
5.14	Convergence between East and West (general model) 162
5.15	Convergence with different imitation efficiencies 163
5.16	Convergence in the special case 165
5.17	Imbalance effect 165

List of Tables

Table

2.1	Real GDP (% change) in CEE	19
2.2	Inflation (annual averages, consumer/retail prices)	20
2.3	Reform progress in Central and Eastern Europe	23
2.4	Results of panel regressions (GLS)	33
3.1	Regression results (OLS) on determinants of under-5-mortality rate	50
3.2	Regression results (OLS) on determinants of infant mortality rate	50
3.3	Regression results (OLS) on determinants of life expectancy at birth	51
3.4	Chow test results	54
3.5	Panel results based on GLS regression	60
4.1	Regression Results	76
4.2	Single country dummies and t-value	78
4.3	Robustness test for commercial energy use	82
4.4	Overall outliers	88
4.5	Regression results for selected 1990 indicators (only dummies)	90
5.1	Energy intensity in selected CEECs, the US and Western Germany in 1989	123
5.2	Energy prices in Poland, July 1997 (Dollar/GJoule)	125
5.3	Change in total R&D personnel (%)	148