

Contents

1	Introduction	1
2	Hierarchic Preferences	9
2.1	Basic Set-up	9
2.1.1	Individual Demand	12
2.1.2	Aggregate Demand	14
2.2	Hierarchy and CRRA	20
2.3	Non-Homothetic Utility in the Previous Theoretical Literature . .	23
2.4	Appendix	26
2.4.1	Convergence of the Utility Integral	26
2.4.2	Proof of Proposition 1	28
3	Structural Change and Balanced Growth	31
3.1	Introduction	31
3.2	Static Equilibrium	36
3.2.1	Preferences and Demand	36
3.2.2	Optimal Price Setting	37
3.2.3	Demand and Price Structure	37
3.3	Dynamics of the Economy	40
3.3.1	R&D and the Resource Constraint	40
3.3.2	Intertemporal Consumption Choice	42
3.4	Equilibrium Growth Path	43

3.4.1	Definition of Equilibrium Growth Path	43
3.4.2	A Unique Equilibrium	45
3.5	Structural Change and the Kaldor Facts	49
3.5.1	The Kaldor Facts	49
3.5.2	Structural Change	51
3.5.3	The Impact of Hierarchic Preferences	55
3.6	Calibration	57
3.7	Other Types of Equilibria	61
3.8	Is the Optimal Patent Duration Infinite?	64
3.9	Discussion and Extensions	66
3.10	Appendix	68
3.10.1	Proof of Lemma 1	68
3.10.2	Proof of Lemma 2	68
3.10.3	Proof of Lemma 3	70
3.10.4	Proof of Proposition 4	71
3.10.5	Proof of Proposition 9 (Patent Duration)	71
4	Inequality and Research Incentives	75
4.1	Introduction	75
4.2	Static Equilibrium	78
4.2.1	Hierarchic Preferences and Consumption Choices	78
4.2.2	The Determination of Prices and the Structure of Consumption	80
4.2.3	Solving the Static Consumers' Problem	83
4.2.4	Static Expenditures and Utilities	85
4.3	Dynamics of the Economy	87
4.3.1	Intertemporal Allocation of Expenditures	87
4.3.2	The Supply Side: Technology and Resource Constraint	88
4.3.3	The Innovation Process	91
4.4	Distribution of Income and Wealth	93
4.5	General Equilibrium	94
4.5.1	The Three Possible Regimes	95
4.5.2	A Graphical Representation of the Equilibrium	98
4.5.3	Steeper Hierarchy	102
4.6	The Impact of Inequality on Growth	103
4.6.1	No Traditional Sector ($\nu = 0$)	103
4.6.2	The General Case $\nu > 0$	104
4.7	Summary	106

4.8	Appendix	108
4.8.1	The Case With Preemptive Patenting	108
4.8.2	The Case Where All Individuals Buy All Products	112
4.8.3	Proof of Lemma 5	114
4.8.4	Proof of Proposition 11	116
5	Markups and Exclusion	117
5.1	Introduction	117
5.2	Monopolistic Competition With Non-Homothetic Preferences	121
5.2.1	Consumers and Firms	123
5.2.2	Restrictions on Preferences and Distribution	124
5.3	Symmetric versus Asymmetric Equilibria	126
5.3.1	Symmetric Equilibrium	126
5.3.2	A Condition Whether Symmetry Constitutes an Equilibrium	129
5.3.3	The Asymmetric Case ('Exclusion')	131
5.4	Unemployment	135
5.4.1	Symmetric Equilibrium	135
5.4.2	Asymmetric Equilibrium	136
5.5	Discussion	139
5.6	Appendix	141
6	Conclusions	143
	References	147