Contents

Preface on the limited Development in the Property of the Prop	
CHAPTER ONE Introduction	1. Coal and 2. Severa Los 3. Engrey In
CHAPTER Two Definitions and Concepts	17
PART I Pre-Industrial Economies Paolo Malanima	35
3. Non-organic Sources4. Seven Long-run Propositions5. Conclusion	bas blo S bas blo S Sisulano S
CHAPTER FOUR Constraints and Dynamics 1. Population and Climate	A Conclusion Tax
PART II The First Industrial Revolution Paul Warde	129
CHAPTER FIVE A Modern Energy Regime 1. The Take-off of Coal 2. Traditional Sources: Rise but Relative Decline 3. Conclusion	131

Decomposing Energy Intensity 1870-1970 enoisevouril substant . I

CHAPTER SIX The Coal Development Block	159
 The Core Innovations The Growth Dynamics of the Coal Development Block The Transport Revolution 	
CHAPTER SEVEN Energy and Industrial Growth 1. Coal and Growth 2. Seven Long-run Propositions 3. Energy Intensity and Economic Structure 4. Conclusion	209
PART III	
The Second and Third Industrial Revolutions Astrid Kander	249
CHAPTER EIGHT Energy Transitions in the Twentieth Century 1. The Rise of Oil and Electricity 2. Old and New in Energy Regimes 3. Conclusion	
CHAPTER NINE Major Development Blocks in the Twentieth Century and Their Impacts on Energy 1. The ICE-Oil Block 2. The Electricity Block 3. The ICT Development Block 4. Conclusion	287
CHAPTER TEN The Role of Energy in Twentieth-Century Economic Growth 1. Development Blocks and GDP 2. Seven Long-run Propositions 3. Energy Intensity and Economic Structure 4. Conclusion	333
CHAPTER ELEVEN Summary and Implications for the Future 1. Summing Up the Book 2. Thinking about the Future 3. Some Remarks about the Future	366

	Contents • vii
Appendixes	
A. The Role of Energy in Growth Accounting	387
B. Decomposing Energy Intensity 1870–1970	395
C. The Impact from the Service Transition on	
Energy Intensity	402
D. Biased Technical Development	411
References	415
Index	451