

# Contents

---

*Acknowledgements* vii

- 1 Technological change and Italian growth 1950–1992:  
an intriguing puzzle 1

## PART I THE LOCALIZED GENERATION AND EXPLOITATION OF TECHNOLOGICAL KNOWLEDGE AND INNOVATION

- 2 The general framework 9  
3 The localized generation of technological knowledge 15  
4 The role of external factors in the localized generation  
of technological knowledge 19  
5 The role of external factors in the localized  
exploitation of technological knowledge: localized  
appropriability and directed technological innovation 34  
6 The emergence and decline of innovation systems 41  
7 A model of localized technological change cum  
pecuniary knowledge externalities 51

## PART II THE ITALIAN EVIDENCE

- 8 Technological change in a distributed innovation  
system 75  
9 The measures of innovative activity in Italy 91  
10 Structural change and the building of systemic  
interdependence: the emergence of a distributed  
innovation system 124  
11 Knowledge exploitation strategies and the direction of  
technological change 139  
12 Knowledge generation and vertical dynamic  
interdependence within industrial filieres: econometric  
evidence on total factor productivity growth 162

|    |  |     |
|----|--|-----|
| 13 | A distributed system of innovation: the Italian evidence in the second part of the twentieth century | 180 |
|    | <i>References</i>  | 186 |
|    | <i>Index</i>   | 201 |