Market Structure and
Foreign Trade
Increasing Returns, Imperfect
Competition, and the
International Economy

Elhanan Helpman and
Paul R. Krugman

The MIT Press
Cambridge, Massachusetts
London, England
# Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>xi</td>
</tr>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td><strong>I Preliminaries</strong></td>
<td>9</td>
</tr>
<tr>
<td>1 The Factor Proportions Theory</td>
<td>11</td>
</tr>
<tr>
<td>1.1 Integrated Equilibrium</td>
<td>12</td>
</tr>
<tr>
<td>1.2 Factor Price Equalization</td>
<td>13</td>
</tr>
<tr>
<td>1.3 Trade Pattern</td>
<td>16</td>
</tr>
<tr>
<td>1.4 Nontraded Goods</td>
<td>19</td>
</tr>
<tr>
<td>1.5 The Volume of Trade</td>
<td>22</td>
</tr>
<tr>
<td>1.6 Unequal Factor Rewards</td>
<td>24</td>
</tr>
<tr>
<td>1.7 Gains from Trade</td>
<td>28</td>
</tr>
<tr>
<td>References</td>
<td>29</td>
</tr>
<tr>
<td><strong>II Technology and Market Structure</strong></td>
<td>31</td>
</tr>
<tr>
<td>2.1 Economics of Scale at the Level of the Firm</td>
<td>32</td>
</tr>
<tr>
<td>2.2 Economics of Scale and Market Structure</td>
<td>34</td>
</tr>
<tr>
<td>2.3 External Economies</td>
<td>36</td>
</tr>
<tr>
<td>2.4 Dynamic Scale Economies</td>
<td>38</td>
</tr>
<tr>
<td>2.5 Specific Inputs and Integrated Firms</td>
<td>39</td>
</tr>
<tr>
<td>2.6 Conclusions</td>
<td>40</td>
</tr>
<tr>
<td>References</td>
<td>40</td>
</tr>
</tbody>
</table>
II Homogeneous Products

3 External Effects
  3.1 Production Functions
  3.2 Resource Allocation within a Representative Country
  3.3 Autarky Equilibrium
  3.4 Trading Equilibrium
  3.5 Gains from Trade
  3.6 Trade Structure
  3.7 Factor Price Equalization
  3.8 Nonuniqueness
  3.9 More on Gains from Trade

References

4 Contestable Markets
  4.1 The Concept of Market Contestability
  4.2 Integrated Equilibrium
  4.3 Trading Equilibrium
  4.4 Robustness of Factor Price Equalization
  4.5 Unequal Factor Rewards
  4.6 Gains from Trade

Appendix 4A: Existence of Equilibrium
Appendix 4B: Losses from Trade

Reference

5 Oligopoly
  5.1 Seller Concentration: Partial Equilibrium
  5.2 Seller Concentration: General Equilibrium Trade Patterns
  5.3 Seller Concentration: Welfare
  5.4 Free Entry
  5.5 Market Segmentation

References
## Contents

10 Transport Costs and Nontraded Goods  
10.1 The Model with Nontraded Goods  
10.2 Nontraded Goods Produced with Increasing Returns  
10.3 Factor Mobility  
10.4 Transport Costs and Market Size Effects  
References  

11 Intermediate Inputs  
11.1 Integrated Equilibrium  
11.2 Trading Equilibrium: Tradable Differentiated Products  
11.3 Trading Equilibrium: Nontraded Intermediates  
11.4 A Generalization: Forward and Backward Linkages  
Appendix 11A: A Model of Differentiation in Intermediate Goods  
References  

IV Multinational Corporations  

12 Single-Product Firms  
12.1 The Basic Model  
12.2 Equilibrium in an Integrated Economy  
12.3 The Pattern of Trade  
12.4 The Volume of Trade  
12.5 Intraindustry and Intrafirm Trade  
References  

13 Vertical Integration  
13.1 The Structure of Production  
13.2 An Integrated Economy  
13.3 Trade Patterns  
13.4 Trade Volumes and Trade Shares  
References