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Jack Hirshleifer was Distinguished Professor of Economics, Emeritus, at the University of California, Los Angeles. In addition to writing or coauthoring the earlier six editions of *Price Theory and Applications*, he coauthored *The Analytics of Uncertainty and Information* (1992, with John G. Riley) and wrote *The Dark Side of the Force* (2001), among other titles. Professor Hirshleifer was a Fellow of the American Academy of Arts and Sciences and a Distinguished Fellow of the American Economic Association. Amihai Glazer is Professor of Economics at the University of California, Irvine. The author of more than 80 articles in professional journals, he also coauthored the fifth edition of *Price Theory and Applications* with Jack Hirshleifer. Professor Glazer coauthored *Why Government Succeeds and Why It Fails* (2001, with Laurence Rothenberg), coedited *Conflict and Governance* (2003, with Kai Konrad), and serves as a coeditor of the Journal of the Economics of Governance. David Hirshleifer holds the Ralph M. Kurtz Chair of Finance at the Ohio State University. He coauthored the sixth edition of *Price Theory and Applications* with Jack Hirshleifer. Professor Hirshleifer has served as a Director of the American Finance Association, an Editor of the *Review of Financial Studies*, and his papers have received a number of research awards, including the 1999 Smith-Breeden Award for the outstanding paper in the *Journal of Finance*.
“...This thorough revision of one of the best microeconomics texts provides fresh insights for a host of interesting issues, including how money first emerged as part of exchange, how corruption reduces standards of living, and offers an entire section putting politics under the economic lens. This text is fun to read, with an offbeat and lively style. Its transparent analyses make the arguments accessible and understandable to students.”

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Jack Hirshleifer, Amihai Glazer and David Hirshleifer

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ERIC RASMUSEN, Indiana University

September 2005 / 632 pages / 102 tables / 187 line diagrams / 0521523427 / Paperback
11. DEALING WITH UNCERTAINTY – THE ECONOMICS OF RISK AND INFORMATION

### Figure 11.4: The "Lemons" Problem

This figure illustrates the "lemons" problem, where low-quality cars are sold at the same price as high-quality cars. The graph shows the demand and supply curves for used cars, with the horizontal axis representing used-car quality and the vertical axis representing price.

#### Table 11.9: General symmetric payoff matrix

<table>
<thead>
<tr>
<th></th>
<th>Left</th>
<th>Right</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Bottom</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

The results reported here refer to the symmetric choices of the ultimate match winner where the server was at "Ace." The left-right mixtures are percentages that sum to 100.

### EXAMPLE 10.1 MIXED STRATEGIES IN TENNIS

One might think that mixed strategies are a "purely academic" idea with no practical application. On the contrary, actual tennis games can be observed whenever intelligent play involves keeping the opponent guessing.

Mixed strategies in championship play

<table>
<thead>
<tr>
<th>Match</th>
<th>Server Left</th>
<th>Right</th>
<th>Server Left Wins</th>
<th>Right Wins</th>
</tr>
</thead>
<tbody>
<tr>
<td>80 US Open Connors</td>
<td>61 39</td>
<td>61 56</td>
<td>64 36</td>
<td></td>
</tr>
<tr>
<td>74 Wimbledon Rosewall</td>
<td>93 7</td>
<td>71 60</td>
<td>84 16</td>
<td></td>
</tr>
<tr>
<td>87 Australian Edberg</td>
<td>25 75</td>
<td>63 71</td>
<td>83 17</td>
<td></td>
</tr>
<tr>
<td>85 French Lendl</td>
<td>37 63</td>
<td>73 69</td>
<td>73 27</td>
<td></td>
</tr>
<tr>
<td>88 Masters Becker</td>
<td>63 37</td>
<td>72 65</td>
<td>68 32</td>
<td></td>
</tr>
<tr>
<td>88 US Open Sampras</td>
<td>56 44</td>
<td>61 85</td>
<td>52 48</td>
<td></td>
</tr>
<tr>
<td>95 US Open Sampras</td>
<td>56 44</td>
<td>61 85</td>
<td>52 48</td>
<td></td>
</tr>
<tr>
<td>97 US Open Korda</td>
<td>63 37</td>
<td>73 63</td>
<td>63 37</td>
<td></td>
</tr>
</tbody>
</table>

The results reported here refer to the server choices at the ultimate match winner where the server was at "Ace." The left-right mixtures are percentages that sum to 100.
12. Why might elasticity of demand for a commodity affect whether government agricultural policies will tend to be designed to increase productivity, reduce restricting output?

For Further Thought and Discussion

† Why might elected state judges tend to find against out-of-state defendants more often than against in-state defendants?

11. Can you give an intuitive explanation for why, when the degree of rivalry is greatest, the advantage lies with the second-mover, whereas when rivalry is least the advantage lies with the first-mover? 

10. Under what political mechanisms or situations do majorities tend to exploit minorities?

9. In rent-seeking competition there tends to be a higher intensity of struggle when the endpoints are relatively equal valuations for the prize. Can you explain why?

8. In a political operator William "Boss" Tweed, leader of the New York political party, and a Democratic candidate for mayor in 1871, leader of a group of votes and candidates, and a system of "spoils," what is the advantage of this system over the merit system in the civil service?

7. Under a system that might be called "open corruption," government officials (including appointed judges, the spoils system rather than the merit system in the civil service, and judges) could sell their decisions to the highest bidder. How bad would this be?

6. Suppose there were a sudden unexpected increase in demand for a product now provided by two firms. How would this affect the market?

5. What if the marginal cost curve for the higher-cost plant does not enter into the horizontal summation until after the marginal cost curve for the lower-cost plant is entered? 

4. Under what political mechanisms or situations do majorities tend to exploit minorities?

3. If votes could be bought for money, would both the rich and the poor be better off, in the poor? Explain.

2. According to the 19th century New York political operator William "Boss" Tweed, leader of the Democratic party, and a Democratic candidate for mayor in 1871, leader of a group of votes and candidates, and a system of "spoils," what is the advantage of this system over the merit system in the civil service?

1. We could regard the first section of the chapter as an "economic" approach to politics, considering government as a (more or less imperfect) provider of goods that citizens demand. Explain this approach in the political process, for the other approach?

For Exercises and Solutions to the Concept of Marginal Cost

6.2 THE OPTIMUM OF THE FIRM IN PURE COMPETITION

Exercises and solutions to the key concept of marginal cost

Now consider the second part of equation (6.11). Output cannot be taken as given, but must be chosen so that \( MCa \) and \( MCb \) both equal \( P \). In Figure 6.4 the bold line curve \( MC \) represents the first Marginal Cost function. In the horizontal section the separate \( MCa \), and \( MCb \), curve. Then, setting \( MC = P \) as illustrated in the diagram also implies setting \( qa + qb = q \) in accordance with equation (6.11). The overall optimal firm output \( q^* \) and the separate output plant output \( q^a \) and \( q^b \) can be read off along the horizontal axis.

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