Innovation and Durability

Bringing New Technologies to Market

• Does a monopoly have the incentive to be an innovator and bring new products to market?

• Many argue that firms like Microsoft, which arguably has a monopoly on operating systems, do not have the right incentives to produce new more innovative operating systems.

Sales at Different Prices

<table>
<thead>
<tr>
<th>Price</th>
<th>Sales</th>
<th>Total Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>$10</td>
<td>5</td>
<td>$50</td>
</tr>
<tr>
<td>$20</td>
<td>4</td>
<td>$80</td>
</tr>
<tr>
<td>$30</td>
<td>3</td>
<td>$90</td>
</tr>
<tr>
<td>$40</td>
<td>2</td>
<td>$80</td>
</tr>
<tr>
<td>$50</td>
<td>1</td>
<td>$50</td>
</tr>
</tbody>
</table>

An Example

<table>
<thead>
<tr>
<th>Willingness to pay for a Word Processing Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smith</td>
</tr>
<tr>
<td>Jones</td>
</tr>
<tr>
<td>Wilson</td>
</tr>
<tr>
<td>Green</td>
</tr>
<tr>
<td>Brown</td>
</tr>
</tbody>
</table>

The Next Step

• After selling the word processing program to Wilson, Green and Brown, the monopolist can develop a new version of the software package for which everyone would be willing to pay an additional $10.
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Willingness to pay for a Word Processing Program

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</tr>
<tr>
<td>Green</td>
<td>$50</td>
</tr>
<tr>
<td>Brown</td>
<td>$60</td>
</tr>
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</table>

Willingness to pay for a Word Processing Program

- The cost of producing the software package is $25.
- Development is a desirable step, but will the monopolist do it?

The Calculations

- He offers the package as an "upgrade" option to Wilson, Green and Brown and as a new package to Smith and Jones for $20.

The Calculations

- Monopolists will innovate if there is a profit opportunity.

Here’s How

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The Calculations

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A Developer owns all the land around Lake Restful

The 100 acres are to be developed in one acre lots.

But how many?

Set P where MR = 0

Why not then do a second round?

The Problem

- Everyone knows the developer can proceed with round two.
- Thus no one will buy in round one, unless given assurances.
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- Everyone knows the developer can proceed with round two.
- Thus no one will buy in round one, unless given assurances.
  - Deed land to nature preserve.
  - Guarantee in writing no second round.

The Christmas Problem

- Think Christmas. It is November. Wonder Toys has produced 60 Wonder Toys®. It will be impossible to produce any more for the Christmas Season.
- The demand is
  \[ Q = 100 - p \]
- How many Wonder Toys® should be donated to Charity?

\[ MR = Q = 100 - p \]
The Christmas Problem

\[ MR \quad Q = 100 - p \]

- Solve the overhang; give 10 to charity
- And do it publicly. This is no time for modesty.

The New Condo

- A new condominium apartment building comes on the market. How does a potential buyer protect against this scam?
  - This is not just the buyer’s problem. The seller must assure the buyer or there will be no buyer.
    - Early buyer discounts.
    - Written promises not to discount.

The New Condo

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This Month’s New Computer

- In the heyday of rapid technology of new computers, buyers of a new computer faced the risk that a new more powerful computer would come out the next month, with significantly better bang for the dollar.
  - IBM solved this problem by offering to lease computers.
End

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