

**D. Price Restraint Posed by Microsoft's Installed Base**

57. Software never expires, so consumers who already have a version of Windows with which they are content and who are not shopping for a new PC system are somewhat reluctant to incur the cost of upgrading to a new version of Windows. Fortunately for Microsoft, the pace of innovation in PC hardware is rapid, and the price of that hardware has declined steadily in recent years. As a result, existing PC users buy new PC systems relatively frequently, and OEMs still attract at a healthy rate buyers who have never owned a computer. The license for one of Microsoft's operating system products prohibits the user from transferring the operating system to another machine, so there is no legal secondary market in Microsoft operating systems. This means that any consumer who buys a new Intel-compatible PC and wants Windows must buy a new copy of the operating system. Microsoft takes pains to ensure that the versions of its operating system that OEMs pre-install on new PC systems are the most current. It does this, in part, by increasing the price to OEMs of older versions of Windows when the newer versions are released. Since Microsoft can sell so many copies of each new operating system through the sales of new PC systems, the average price it sets for those systems is little affected by the fact that older versions of Windows never wear out.

**E. Price Restraint Posed by Piracy**

58. Although there is no legal secondary market for Microsoft's PC operating systems, there is a thriving illegal one. Software pirates illegally copy software products such as Windows, selling each copy for a fraction of the vendor's usual price. One of the ways Microsoft combats piracy is by advising OEMs that they will be charged a higher price for Windows unless they drastically limit the number of PCs that they sell without an operating system pre-installed.

In 1998, all major OEMs agreed to this restriction. Naturally, it is hard to sell a pirated copy of Windows to a consumer who has already received a legal copy included in the price of his new PC system. Thus, Microsoft is able to effectively contain, if not extinguish, the illegal secondary market for its operating-system products. So even though Microsoft is more concerned about piracy than it is about other firms' operating system products, the company's pricing is not substantially constrained by the need to reduce the incentives for consumers to acquire their copies of Windows illegally.

#### **F. Price Restraint Posed by Long-Term Threats**

59. The software industry in general is characterized by dynamic, vigorous competition. In many cases, one of the early entrants into a new software category quickly captures a lion's share of the sales, while other products in the category are either driven out altogether or relegated to niche positions. What eventually displaces the leader is often not competition from another product within the same software category, but rather a technological advance that renders the boundaries defining the category obsolete. These events, in which categories are redefined and leaders are superseded in the process, are spoken of as "inflection points."

60. The exponential growth of the Internet represents an inflection point born of complementary technological advances in the computer and telecommunications industries. The rise of the Internet in turn has fueled the growth of server-based computing, middleware, and open-source software development. Working together, these nascent paradigms could oust the PC operating system from its position as the primary platform for applications development and the main interface between users and their computers. Microsoft recognizes that new paradigms