## Fit to Be Tied

In the 1930s, computing revolved around the use of punch cards. Key punch machines entered data on these thin cardboard cards by punching holes in them, and other machines tabulated and sorted the cards according to the locations of the holes. IBM was a major manufacturer of all these types of machines, but rather than selling them, IBM leased the machines, with the requirement that customers use only IBM punch cards. This tying arrangement, combined with IBM's high price for punch cards, enabled IBM to earn large profits from heavy users of the cards, who were generally the customers with the highest willingness to pay for computing services.

IBM knew that the tying arrangement would fail if its customers could buy punch cards at lower prices

from other suppliers. To prevent this, IBM leased machines with the stipulation that the lease would be canceled if the customer used any punch cards other than those made by IBM.

In a famous antitrust case, IBM defended the practice of tying the use of its machines to its own punch cards to ensure that the cards were of sufficiently high quality.<sup>21</sup> It argued that faulty cards could damage the computing machines, lead to errors in computation, and damage IBM's reputation. The Supreme Court rejected IBM's argument, finding that other suppliers could make cards that met IBM's standards. The Court allowed IBM to set quality standards for cards, but ordered IBM to allow customers to buy cards from any supplier who satisfied those standards.