Extreme Measures

Corporate Governance and Innovation

Research by
Haresh Sapra

Haresh Sapra is professor of accounting at the University of Chicago Booth School of Business.

To get companies to innovate, anti-takeover laws must either be absent or very severe.

A n important part of a country's technological advancement comes from the efforts of companies to innovate. Managers are the key decision makers on how company resources are spent, and their decision to invest in cutting-edge projects may be influenced by internal and external corporate governance mechanisms that enhance or diminish the incentive to innovate.

How a manager is compensated and how closely shareholders are able to keep an eye on a manager's performance, for example, can affect his or her choice of projects. Antitakeover laws that determine how easy or difficult it will be for investors to buy out shareholders—in the so-called market for corporate control—can likewise affect a manager's decision to innovate. For instance, one strand of literature argues that laws that hinder the market for corporate control promote managerial slack and discourage managers from investing in risky but innovative activities, because there is very little threat of a takeover and thus of managers losing their jobs. A contrasting view asserts that laws that reduce takeover pressure foster innovation because managers are encouraged to take a longer-term view when making investment decisions.

Though previous studies have looked at how innovation is affected by either internal or external corporate governance mechanisms, very little research has focused on how these two factors influence each other, according to University of Chicago Booth School of Business professor Haresh Sapra. "There's pressure from outside and inside the company, and we were interested in studying how these two forces interact," says Sapra. The study, titled "Corporate Governance and Innovation: Theory and Evidence" by Sapra and co-authors Ajay Subramanian of Georgia State University and Krishnamurthy Subramanian of the Indian School of Business, examines how the interaction of external mechanisms, such as state anti-takeover laws, and internal mechanisms, such as managers' compensation contracts and monitoring of managers by large shareholders, affect managers' choice of projects.

The authors find that both very severe and very lenient anti-takeover laws give managers an incentive to choose highly innovative projects. An environment with moderate takeover pressure, on the other hand, leads to less innovation. In addition, intense monitoring of managers by large shareholders encourages more innovation because managers are more likely to do what shareholders want when their performance is closely scrutinized.

Managers' Perks and the Takeover Premium

The authors build a model in which the manager chooses between a very risky yet possibly mold-breaking project and a less risky, routine project. Suppose the manager of a pharmaceutical company could invest in either inventing a new drug or manufacturing a generic substitute for an existing drug. Inventing a new drug is riskier since a greater portion of its uncertainty lies in establishing the new drug's viability. On the other hand, manufacturing a generic substitute of an already existing drug would mostly entail a marketing risk. If successful, the riskier and more innovative project is
expected to have a higher payoff.

The company can be acquired by another firm. The severity of anti-takeover laws determines the company's bargaining power when negotiating with the raider, which is reflected in the takeover premium offered by the acquirer. If the takeover pressure is high because anti-takeover laws are lenient, then the premium that raiders are willing to pay rises as potential buyers outbid each other. Because the raider intends to create value by turning the company around, a company is acquired only if it has been performing below a certain threshold. Thus, companies with innovative projects are more likely to be a target because riskier projects tend to have more variable returns.

The manager’s compensation contract includes an equity stake in the company and a severance payment in the event of a takeover. Apart from the compensation a manager receives, he or she also derives private control benefits as head of the company. Being a CEO, for instance, comes with certain perks like being able to take on projects or buying companies that the CEO likes, sometimes at the expense of shareholders. However, these benefits are "private" in the sense that shareholders cannot write a contract to make sure that managers do not extract such perks. The manager's private control benefits decline if large shareholders in the firm can monitor the manager more intensely. If the company is acquired by another firm, the manager must cede these benefits to the raider.

Choosing How Much to Innovate

Managers want to maximize the value of their company and do not want to lose the private control benefits that come along with the job. When faced with the decision to choose a project, they know that selecting the more innovative project increases the chances that the firm will be taken over and thus the possibility that they will no longer head the company. However, the higher likelihood of a takeover means that shareholders will be offered a large premium, which also makes managers better off. Thus, managers must weigh the higher expected takeover premium against the expected loss of control benefits if they choose the more innovative project.

The authors propose that when the takeover pressure that a firm faces is very low, perhaps because anti-takeover laws in a particular state are severe, then both the expected takeover premium and the expected loss in control benefits are insignificant because it is unlikely that the firm will fall into the hands of a raider. Managers do not have to worry about losing their jobs and consequently their control benefits. Thus, they end up choosing the highly innovative project that generates the highest value for the company.

On the other hand, managers will also choose the more innovative project if the threat of a takeover is very high. In this case, the expected loss in control benefits will be large, but the takeover premium that managers expect to receive will be even bigger as potential buyers compete in an environment where the market for corporate control is very active. In other words, the expected takeover premium dominates the expected loss in control benefits. Thus, managers choose the more innovative project in order to increase the chances of obtaining that premium.

What about environments where the takeover pressure is moderate, that is, when the threat of a takeover is neither very high nor very low? The authors argue that in this type of environment, managers' fear of losing their jobs and their control benefits dominates the takeover premium they might get from selecting the highly innovative project. Therefore, managers choose not to innovate in order to stay at the helm of their company. Altogether, these results produce a U-shaped relationship between innovation and takeover pressure: managers choose the more innovative project only when the threat of a takeover is either very high or very low.

However, if shareholders monitor the performance of managers more closely, it becomes more costly for managers to extract the perks bestowed by their position. Managers' objectives will become more aligned with the interests of shareholders, who always prefer more innovation because it gives them the biggest payoff. Thus, managers are more likely to choose the highly innovative project. In addition, an increase in the intensity of monitoring makes the decision to innovate less sensitive to changes in takeover pressure, resulting in a flatter U-shaped curve.

Anywhere but the Middle

The authors test their model and its predictions using three measures of innovation: the ratio of a firm's research and development (R&D) expenditures to sales, the number of patents filed by a U.S. firm at the U.S. Patent Office, and the number of citations made to such patents. Takeover pressure in each state is measured by the number of anti-takeover statutes, which consists of laws that make takeovers very costly from the perspective of the acquirer. One example of an anti-takeover law is whether a firm can adopt a poison pill—an anti-takeover tactic adopted by a company to deter takeover bids or force bidders to pay a huge premium if they want to acquire the company. Finally, the intensity of monitoring is measured by the number of institutional and public pension fund shareholders who own more than 5 percent of a firm's outstanding shares, as well as the total percentage of shares owned by these so-called block holders.

Indeed, the study finds that innovation varies in a U-shaped manner with the anti-takeover index. When the value of the anti-takeover index in a state is very low, a onepoint increase in this index decreases the R&D-to-sales ratio by 28
percent a year. Moreover, when the value of the anti-takeover index is very high, a one-point increase augments the same innovation measure by 30 percent a year. Thus, both very lenient and very strict anti-takeover laws lead to more innovation. More intense shareholder monitoring is also associated with greater innovation and flattens the U-shaped relationship between takeover pressure and innovation.

The study’s results are especially relevant to the ongoing debate on the importance of the market for corporate control in fostering innovation, and present evidence that the two competing views described before are "locally" correct. When the threat of a takeover is very high, easing anti-takeover laws may lead to a decline in highly innovative projects because managers worry less about performing well and losing their jobs. This is consistent with the "quiet life" view. When takeover pressure is very low, on the other hand, stimulating the market for corporate control likewise decreases a manager’s incentive to innovate and allows "managerial myopia" to set in, because the manager is unsure of how long he or she will stay in control of the company.

The results also suggest that the way to encourage corporate innovation is either through state anti-takeover laws that are practically non-existent as in California, or strong enough to significantly deter takeovers as in Massachusetts. Intense shareholder monitoring promotes innovative activities as well, and seems to be most effective when companies face moderate levels of takeover pressure.