

Economics focus

Slackers or pace-setters?

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Monopolies may have more incentive to innovate than economists have thought

A LOT of attention has been paid to the ill effects of monopoly. Economists long ago pointed out why it is bad for a single firm to dominate a market. In essence, the trouble with monopolists is that they can set prices almost as they please. Unlike in competitive industries, a monopolist's price, in the jargon, can be way above the marginal cost of production. Worse, immunity to competition makes a monopolist fat and lazy. It needn't worry too much about keeping customers happy. Worse still, if a company has no fear of competition, why should it bother creating new and better products?



By and large, officialdom these days continues to take a dim view of monopoly. Antitrust authorities in many countries do not shrink from picking fights with companies that they believe are too powerful. The biggest target in recent years, first in America and now in Europe, has been Microsoft, creator of the operating system that runs on some 95% of the world's personal computers. One of the arguments against Microsoft is that its dominance of the desktop allows it to squeeze out smaller and (say the company's critics) more innovative rivals.

Despite this, compelling evidence that monopolists stifle innovation is harder to come by than simple theory suggests. Joseph Schumpeter, an Austrian economist, pointed out many years ago that established firms play a big role in innovation. In modern times, it appears that many product innovations, in industries from razor blades to software, are made by companies that have a dominant share of the market. Most mainstream economists, however, have had difficulty explaining why this might be so. Kenneth Arrow, a Nobel prize-winner, once posed the issue as a paradox. Economic theory says that a monopolist should have far less incentive to invest in creating innovations than a firm in a competitive environment: experience suggests otherwise. How can this be so?

One possibility might be that the empirical connection between market share and innovation is spurious: might big firms innovate more simply because they are big, not because they are dominant? A paper* published a few years ago by Richard Blundell, Rachel Griffith and John Van Reenen, of Britain's Institute for Fiscal Studies, did much to resolve this empirical question. In a detailed analysis of British manufacturing firms, it found that higher market shares do go with higher investment in research and development, which in turn is likely to lead to greater innovation. Still, the question remains: why does it happen?

A new paper† by Federico Etro, of the University of Milan, aims to resolve Mr Arrow's paradox. He sets out a model in which a market leader has a greater incentive than any other firm to keep innovating and thus stay on top. Blessed with scale and market knowledge, it is better placed than potential rivals to commit itself to financing innovations. Oddly—paradoxically, if you like—in fighting to maintain its monopoly it acts more competitively than firms in markets in which there is no obviously dominant player.

The hunted monopolist

The most important requirement for this result is a lack of barriers to entry: these might include, for example, big capital outlays to fund the building of new laboratories, or regulatory or licensing restrictions that make it hard for new firms to threaten an incumbent. If there are no such barriers, a monopolist will have an excellent reason to innovate before any potential competitor comes up with the next new thing. It stands to lose its current, bloated profits if it does not; it stands to gain plenty from continued market dominance if it does.

If the world works in the way Mr Etro supposes, the fact that a dominant firm remains on top might actually be strong evidence of vigorous competition. However, observers (including antitrust authorities) may well find it difficult to work out whether a durable monopoly is the product of brilliant innovation or the deliberate strangulation of competitors. More confusing still, any half-awake monopolist will engage in some of the former in order to help bring about plenty of the latter. The very ease of entry, and the aggressiveness of the competitive environment, are what spur monopolists to innovate so fiercely.

But what if there are barriers to entry? These tend to make the dominant firm less aggressive in investing in new technologies—in essence, because its monopoly with the existing technology is less likely to be challenged. Over time, however, other companies can innovate and gradually overcome the barriers—"leapfrogging", as Mr Etro calls it. Meanwhile, the monopolist lives on marked time, burning off the fat of its past innovations.

So much for theorising. What might the practical implications be? One is that antitrust authorities should be especially careful when trying to stamp out monopoly power in markets that are marked by technical innovation. It could still be that firms like Microsoft are capable of using their girth to squish their rivals; the point is that continued monopoly is not cast-iron evidence of bad behaviour.

There might be a further implication for patent policy. Patents, after all, are government-endorsed monopolies for a given technology for a specified period. Mr Blundell and his colleagues found that the pharmaceutical industry provided the strongest evidence of correlation between market share and innovation. Thus strong patents, despite their recent bad press, can be a source of innovation. Generally, though, when one company dominates a market, people should be careful in assuming that it is guilty of sloth. It may be fighting for its life.

* "Market Share, Market Value and Innovation in a Panel of British Manufacturing Firms". *Review of Economic Studies*, 1999.

† "Innovation by Leaders". *Economic Journal*, April 2004.

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