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Monopoly, Regulation, and Innovation

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By Matt Bogard

Recently the Justice department has begun investigations into alleged anti-trust violations by Monsanto. This has helped fuel a lot of already hyped discontent with one of the world's leaders in innovative solutions for sustainable agriculture. But why are people so anti-Monsanto and are these concerns unfounded? What makes Monsanto so powerful and so threatening in critics' minds?

Despite the numerous amounts of research attesting to the safety of consuming Biotech foods many people still seek bans or increased regulation. Biotechnology largely represents the intersection of technology and capitalism. Since Monsanto is a leader in the biotech industry, it makes a great target for luddites and critics of market forces in general.

Now, truthfully, Monsanto did not come to be in a perfectly competitive purely capitalistic free market economy. No industry or corporation can make that claim in today's heavily interventionist world, replete with regulations and public- private partnerships and the influence of special interests.

What is ironic is that many of the people cheering on the justice department's investigation of Monsanto are the same people that want increased regulation and control of the economy in general, and especially the biotech industry. Why is this ironic? Because, these very proposals are what lead to ever more concentration and consolidation. Again Miller and Conko make an excellent point:

'In the end, EPA and the USDA regulatory policies place federal bureaucrats in the middle of virtually all field trials of gene-spliced plants, spelling disaster for small businesses and academic institutions whose scientists lack the resources to comply with burdensome, expensive, unnecessary regulation. The cost of field-testing gene-spliced plants is as much as 20-fold higher than for virtually identical plants crafted with older, less precise genetic techniques.' -Regulation, Summer 2003

Specifically, the mergers and acquisitions and increased concentration that we have seen in the ag biotech industry are largely the result of attempts to take advantage of economies of scale. Increased regulatory costs increase up front sunk costs. According to basic microeconomic theory, and Fulton and Giannakas (2001) research, these increased sunk costs create the possibilities of economies of scope and scale and increased industry consolidation in the biotech sector. Ollinger and Fernandez-Cornejo (1998) found that in the chemical pesticide industry that regulatory costs fell heavier on smaller firms and led to more concentration and fewer firms.

Those crying the loudest about more regulation have to accept that with it comes increased concentration and less competition.

Are Monopolists Always Bad for Society?

It is not always the case that monopolies are bad. The most ardent critics that want to build cases for 'busting up' big businesses often commit the fallacy of relying only on static analysis. Instead of looking ahead (which would be dynamic analysis) they maintain a short sighted, often politically motivated agenda. This could make society worse off in the long run.
Regulations can sometimes explicitly create monopolies (like the U.S. postal service) or they can create them indirectly like I mentioned above. I don't think careful consideration is always given to the tradeoffs involved in those cases. However, tradeoffs are widely recognized when it comes to intellectual property rights and biotechnology. With intellectual property rights (like patents) temporary monopoly power is granted. This certainly may come with temporary social costs, but it allows researchers and investors to recoup their costs and provides incentives for increased R&D. In the long run, based on a dynamic view of monopoly, this paves the way for innovation in particular industries and improved standards of living for society at large.

In his post The Seeds of an Antitrust Disaster , Geoffrey Manne makes a great point related to intellectual property rights:

"But, the AP found, access to Monsanto's genes comes at a cost, and with plenty of strings attached. I should hope so. If Monsanto is giving away its technology and failing to protect its IP it is in serious trouble with its shareholders, among others. And never mind (and the AP reporter doesn't) that Monsanto apparently licenses its technology broadly (I assume that 200 companies is broad in this market) rather than keeping it locked up for itself (the usual complaint about firms exercising their IP rights). Isn't this how technology markets are supposed to work?"

Monsanto's behavior appears to be consistent with what we would expect from a dynamically efficient system of intellectual property rights. While people may have different opinions about the optimal time period for setting patents, that is different than punishing a company for its success based on a short term 'static' analysis of their behavior. As economist Hal Varian points out in his research *"Forcing a policy of flat pricing in an industry where it is inappropriate due to the nature of the technology may well have perverse consequences."*

Some research even indicates that under the current regime, farmers can still benefit in the face of a monopolist supplier. When looking at the gains from biotechnology for Bt Cotton, research in the American Journal of Agricultural Economics found :

"The welfare framework explicitly recognizes that research protected by intellectual property rights generates monopoly profits, and makes it possible to partition these rents among consumers, farmers, and the innovating input firms. We calculate a total increase in world surplus of $240.3 million for 1996. Of this total, the largest share (59%) went to U.S. farmers."

In conclusion not all monopoly situations are bad, and even if they are, we have to ask ourselves what policies are empowering them? It seems the loudest voices cheering on the government's investigation of Monsanto also support the very policies that lead to industry consolidation to begin with. This seems all too familiar. The financial industry is the most heavily regulated industry in the United States. Add to that the interventions of the Federal Reserve through centrally planned interest rates, and we have created an industry incentivized to take extraordinary risks despite (or as a result of in some cases) all of the regulations. When the industry came crashing down in 2008, many of the same critics whose policies helped create the financial crisis also were the loudest to blame the industry for its 'greed' and 'short sightedness.' I think we are seeing something very similar when it comes to the increased scrutiny and criticism of modern agriculture. A financial crisis is bad enough, but we don't need a food crisis.

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