Political economics of agri-biotechnology

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Genes, Trade, and Regulation: The Seeds of Conflict in Food Biotechnology

by Thomas Bernauer

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Political economics explains national and international policy as the result of political pressures exerted by interest groups. The underlying assumption is that politicians maximize their

own welfare, for example by engaging in vote-seeking behaviour to get re-elected. The standard results of this are that more focused and cohesive groups have greater political influence, and that an increase in benefits accruing to or costs borne by any group catalyses that group to exert greater pressure. Political economics successfully explains agricultural subsidies in developed countries, for example, as the outcome of a political process in which organized, cohesive farm lobbies extract substantial payments from heterogeneous consumers whose cost is relatively small on a per-capita basis.

It is much more difficult to explain the controversy surrounding genetically modified (GM) foods due to the lack of clear scientific evidence, politicization of issues, public involvement and international tensions. In *Genes, Trade, and Regulation*, Thomas Bernauer does a masterful job of articulating the complicated nuances of political economics and of applying them accessibly to biotechnology issues. There are three puzzles to explain: why European consumers are adamant in opposing GM foods, why European consumers are politically strong and why European agribusiness is silent on the issue. Bernauer has little to say on the first, for the most part taking as given "pre-existing negative public perceptions of agri-biotechnology" (p 69).

The real work in this book is in the explanation of the second two puzzles, which takes up most of the first five chapters.

The crux of Bernauer's explanation of why European consumers are politically strong is that opportunistic environmental groups have turned the public's pre-existing negative sentiment towards biotechnology into a major political issue to serve their own agendas. Being in the business of influencing market and policy outcomes, these groups are able to transform negative sentiment into European political and business decisions that are unfavourable to biotechnology, such as the moratorium on the introduction of new GM products from 1998 to early 2004.

To complete the argument, Bernauer explains why environmental groups have been unable to influence the political decision-making processes in the United States on this issue. In the European Union (EU), relatively decentralized decision-making allows governments to impose restrictive national GM-food standards in response to national political pressures. In response to supranational political pressure and the need to foster integration, the EU Commission has harmonized GM standards at restrictive levels. The USA has centralized regulation of GM crops and food, which *de facto* resides with the US Department of Agriculture (USDA). The USDA is arguably held captive by agribusiness interests that are favourable to biotechnology, so environmental groups can make little headway.

The third question is why European agribusiness is so quiet on GM food issues. Bernauer argues that those European agribusinesses that would benefit from less restrictive EU regulation are small to medium sized, intensely competitive, and either unwilling or unable to form a cohesive industry voice. Large European firms simply may not be very good at genetic engineering; moreover, allowing crops such as Monsanto's Roundup Ready® varieties would increase the use of Monsanto's Roundup herbicide instead of competing herbicides produced by European firms. Farmers fear being squeezed between oligopolistic farm input suppliers and oligopolistic output purchasers, and they fear falling prices due to increased production if GM inputs are adopted. Thus, no component of European agribusiness will speak out in favour of GM crops.

In Chapter 6, Bernauer turns to trade tensions between the USA and the EU. Political economics again provide the explanation: US food trade policy is designed to appease

agribusiness interests; EU trade policy is designed to appease farmers, consumers and anti-biotech interest groups; and global judicial systems behave "as strategic actors that attempt to strike a balance between legal consistency and political support" (p 157). Bernauer argues that if the EU lifts the moratorium on new GM products, the USA will extend the dispute to labelling and traceability issues. This brings a high probability of escalation into a trade war revolving around the precautionary principle, how to define politically the 'scientific basis' for a decision and 'good science', and the appropriate models for regulating consumer and environmental risk.

In the final chapter, Bernauer presents solutions for avoiding the 'impending trade war', namely creating a centralized EU version of the US Food and Drug Administration (FDA) and allowing a market-driven product differentiation and labelling scheme. Whereas the first six chapters of the book are tightly and logically argued, the seventh chapter is noticeably different in tone and content, focusing more on why other proposals will fail than on why Bernauer's will succeed. Finally, the proposal itself is doomed. The GM foods most likely to be grown or consumed in Europe are precisely those approved for US consumption by US regulatory agencies, and this seems to have little effect on EU consumers. Bernauer somehow believes that the EU version of the FDA will inspire consumer confidence in GM foods, contrary to his argument that consumers have little faith in EU agencies. The market-driven labelling system will have a similarly negligible effect. What Bernauer fails to realize is that such a labelling system is already in place—except that the labels are not on individual packages but on the supermarkets and food stores, and they read 'This store is free from GM foods'. How will individual package labels—which British supermarkets Safeway and Sainsbury did away with—have any effect on stores that are GM-free?

Despite Bernauer's inability to solve all the world's GM problems, the book is scholarly, enjoyable and a good read on the interface between science and politics.

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