



Second-Order Effects

WHAT COULD POSSIBLY BE WORSE THAN SMOKING? Well, what about getting fat? I was reading a story the other day that hypothesized the real reason that Parisian women are less obese than their American counterparts is that they smoke more. Has the huge push to reduce smoking been a factor contributing to the current obesity epidemic in the United States? Together with the baby boomers' fear of mortality, this weight increase has in turn increased the American demand for faddish (though sometimes effective) diets and changes in eating and exercise habits. Some believe the popularity of fast food in France has led to the recent rise in youth obesity there.

In the public policy-making arena, it's easy to find examples where second-order effects of policy decisions haven't been sufficiently considered—the effect of various pension reform and regulatory efforts on defined benefit pension plans, for example. Although a cost-benefit analysis has been the kiss of death to many a proposal (similar to sending a proposal to a committee for “study”), I believe that probable second- and third-order effects should be identified and reflected in the analysis of proposed new or modified programs.

A pet peeve of mine regarding politicians is that long-term effects of their proposals never seem to be seriously discussed. Even 10-year government budget estimates seem to be bandied about primarily to justify a political position and not to clarify the real reasons and their effect on the private and public environment. Certainly from an actuarial perspective, both long-term and second-order effects appear totally absent from any public policy discussions of retirement and health care issues.

An example might be a proposal designed to assist a specific population segment such as the very rich or the very poor, or a special interest group. A second-order effect might be the development of a new industry whose sole purpose is to take advantage of the new program (to the possible detriment of an existing industry) or the development of its own bureaucracy that will likely deliver limited net value to the original targeted population, be inconsistent with the program's original objective, and be difficult to eliminate. Take the 1960s war on poverty programs, for example.

Usually new or revised stakeholder incentives are key factors that drive these effects. Incentive compensation is a frequent example. Even a seemingly innocuous change in a comp formula might result in unintended negative consequences elsewhere. Very early in my career, I designed a

branch manager compensation program whose incentive formula turned out to emphasize expense management. The short-term result was indeed a significant reduction in expenses, but at the cost of a reduction in recruiting, production, and long-term sales capacity. More extensive sensitivity testing and probing interviews might have avoided the problem.

To help overcome these concerns, explicit and transparent assumptions should be used and communicated to the decision-makers, particularly an analysis of possible adverse incentives and the reactions of all the affected stakeholders. The relationships among assumptions—whether due to policyholder, market, or insurer behavior—are second-order effects that have to be reflected in insurers' product design and pricing.

Examples of unsound actuarial practice include changing crediting rates for annuities without reflecting corresponding changes in policyholder behavior (as seen in voluntary persistency rates), creating marketing product bells and whistles without reflecting their expected costs, or introducing an attractive new product without considering its substitution effect on profitable existing products.

A management development trainer once taught me that almost any strength carried to its extreme would develop into a weakness, a lesson I still remember. For example, it's great if a young actuary develops relevant and current technical skills. Nevertheless, if that smart young man or woman becomes too good at using these skills, he or she might become viewed strictly as a techie, with limited opportunity for advancement into broader areas when such a move might have contributed to both the firm and the individual. Careful mentoring and challenging temporary positions outside current specializations might help provide that opportunity.

We as a profession and as individual actuaries should encourage full consideration and disclosure of second- and third-order effects, over both the short term and the long term.

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