

## FOSTERING COMPETITION IN THE CONTEXT OF RISK MANAGEMENT<sup>1</sup>

1. The usual topics of risk management are tangential to the common subjects of competition law. Nonetheless, there is some common ground between the methods of “risk management” regulation and competition policy, and there are some reasons why regulation and other government interventions to deal with risks should take account of effects on market competition. Competition policy has designed rules and decision processes to set priorities in conditions of uncertainty, that is, to manage the risk that the agency will reach the wrong conclusion and thus fail to achieve its policy objective. Regulatory interventions to manage or avoid risks of other kinds might affect market competition, and by dampening competition might even fail to achieve their objective of reducing risk. Finally, interventions in times of crisis – when it appears that the risk-avoidance calculus went wrong – can also undermine competition unnecessarily while failing to relieve the crisis.

### *Relevant dimensions of risk management related to competition issues*

2. Three aspects of the risk-management perspective on regulation – allocating resources, regulating conduct and responding to crisis – can be connected with competition policy and enforcement experience, in different ways. For allocating resources, risk management means developing a system to set priorities. For regulating conduct, risk management can take the form of a protocol to guide the process of investigation and control. For responding to crisis, risk management means dealing with rare but large-scale harms. In policy discourse, the term also extends to paying special attention to risks from things that are unfamiliar, evidently because the extent and nature of the harm they might cause are unknown.

3. Most of the objects of risk management regulation are problems of health, safety, environmental protection and financial security. Higher prices and other consequences of market power and market failure, which are the problems usually addressed by competition policy, might not be considered the kinds of injuries that are suitable for risk management methods. The agencies that apply competition law do not typically call what they do “risk management”. Nonetheless, some of their methods of analysis are consistent with this approach, particularly as applied to decision-making procedures to set priorities and assign resources.

4. Uncertainty is a common feature. Methods of competition enforcement, like the methods recommended for risk management, apply to conditions of uncertainty and incomplete information, developing and justifying rules and procedures by working backwards from possible adverse impacts and the probabilities that they may happen. The terms “risk” and “uncertainty” are often used informally as synonyms. In some technical literature they are distinguished, with the term “risk” being applied to well-defined outcomes such as those in gambling or insurance. In this conception, a risk is an expectation, that is, the impact of an event multiplied by its probability (see, for example, Majone, 2006). In conditions of true uncertainty, even the nature of outcomes may be unknown, while the pattern of their probabilities may be difficult to estimate. In this sense, competition enforcement decisions are often made in conditions of uncertainty.

---

1. This paper was prepared by Michael Wise, Principal Administrator, Directorate for Financial Affairs, Competition Division, OECD for the 1-2 December 2008 meeting of the Group on Regulatory Policy.

5. Methods of applying competition law have been moving away from the direct supervision and inspection for which risk management methods seem to have been designed. To be sure, there are common elements in the schemes, such as starting the analysis by examining the outcome to be achieved or prevented, rather than focusing only the rule to be applied to it. Other shared elements are an effort to describe the possible risks and estimate their probabilities, and a judgment about which risks deserve closer attention. And the result is used to concentrate enforcement resources on getting better information and making better decisions about situations that present greater risks of more significant harm. But in competition policy, the result is not usually applied in a context of licensing, inspection and supervision of a large set of firms subject to regulation, nor for scoring, classification or triage of problem situations. Rather, in competition policy and enforcement this kind of analysis is used more often to develop and justify rules, presumptions and burdens of proof.

### **Allocating resources: managing in uncertainty**

6. For decades, setting competition enforcement priorities has referred to concepts from decision theory, of assessing the relative costs of incurring and avoiding false positives and false negatives. Guidelines for enforcement similarly state rules of thumb that are motivated by degrees of uncertainty about future effects. Possible impacts and their estimated probabilities are the elements of this calculation. These are not necessarily measured directly. They may be drawn from theory or stylised facts as well as from accumulated experience. The goal is to devise a general rule that is administrable and that is likely to maximize expected benefits net of expected costs, paying particular attention to the costs of enforcement and compliance. Costs would include harm from anticompetitive practices and inefficiencies, but also the direct and opportunity costs that result from misdirected enforcement effort. Competition policy debate employs the familiar terms, describing a mistaken finding of liability as a Type I error and a mistaken oversight that permits anti-competitive conduct as a Type II error. For example, in the fall 2007 issue of *Antitrust*, a trade publication for United States lawyers, all of the contributors to discussions about recent Supreme Court decisions cast their arguments and proposals in terms of minimising direct and error costs of Type I false-positives and Type II false-negatives. Proposals for improving rules applied to mergers and other conduct have long relied explicitly on ideas from decision theory. Examples include Katz & Shelanski (2007), Heyer (2005), Beckner & Salop (1999) and Evans & Padilla (2004).

7. Competition rules sometimes distinguish practices that are treated as illegal *per se* from others for which an open-ended “rule of reason” analysis is applied. The distinction is explained in terms of the cost of gathering and analyzing information, compared to the likelihood that the additional information would improve the decision. Even the *per se* rules are derived from marketplace effects, though: experience or theory show that the harmful effect would be significant and its likelihood high, while the likelihood of a benign explanation is very low. Conduct subject to these rules is conclusively presumed to harm competition, and there is no inquiry into its actual effect in the particular case. By contrast, finding liability for other conduct usually requires a more thorough analysis of actual or likely effects on competition in a relevant market. In terms of decision theory, the difference in the depth of examination is determined by an experience-based probability that further examination would change a finding. The classification affects resource allocation. An enforcer will try to take more actions against *per se* misconduct, because it is more harmful and the simpler rule makes enforcement less costly.

8. Horizontal price fixing is a principal occasion for a *per se* rule. In the United States, the *per se* rule against horizontal price fixing dates from judicial decisions in the 1920s and 1930s. The judges at that time did not refer to decision theory, but nonetheless the rule they developed is consistent with decision theory concepts. Although there is some chance that the condemned conduct might not be harmful (or might even be efficient) in a particular case, the cost that is incurred by preventing is considered low, compared to the costs of applying a more complex rule and the harm to the economy that would result from missing target too often.

9. Some competition rules have evolved as estimates of the risks of error have changed. The rules about “vertical” agreements and relationships, between firms along the supply chain, have become more flexible in many jurisdictions, partly in response to developments in economic theory about why firms would engage in these practices. In the European Union, guidelines about enforcement against vertical agreements use presumptions and safe-harbours to describe types of agreements that are not likely to be subject to enforcement action. In the United States vertical agreements setting prices are no longer prohibited *per se*. The Supreme Court was persuaded to change this long-standing rule by arguments from economic theory about likely net efficiencies and by experience with other practices whose effects are likely to be similar. Here too, as the consensus about the risk of harm from these practices has changed, competition agencies have shifted resources to concentrate on other problems.

10. Rules applied to predatory pricing in many jurisdictions can also be traced to decision theory concepts. Presumptions about the cost levels that define when prices are potentially predatory or innocent have been based on belief that the cost of Type I error was much higher than the cost of Type II error; that is, concern that the benefit of vigorous enforcement in preventing monopoly would be outweighed by the cost of discouraging vigorous price competition. By holding that prices above a certain cost level will not be considered predatory, these rules reassure businesses and concentrate enforcement resources on matters that are more likely to have anti-competitive effects. The foundation for these rules is an academic proposal from the 1970s. More recently, Evans and Padilla (2004) have suggested a decision-theory approach to designing other competition rules about unilateral conduct. Their proposed presumptions and burdens of proof are based on economic theory and empirical evidence about the costs and likelihoods of errors in enforcement. As for other competition rules that are already in use, their point of their proposal is not to maximise expected welfare in every case, but maximise net expected welfare over a large set of cases.

11. Guidelines about review of mergers generally acknowledge that decisions must be made with incomplete information, under conditions of uncertainty about likely outcomes. Yet the policy goal of merger control is to prevent problems in the future, by stopping mergers that would result in a substantial impediment to or significant reduction of competition. Important factors that cannot be known with certainty include how the combined firms and their competitors will behave in a different post-merger market and whether, and how quickly, other competitors might enter that market. Parties’ claims about their plans for achieving efficiencies are similarly predictions about the future whose probability may be hard to estimate. Thus enforcement guidelines typically set general structural thresholds, to identify transactions that will demand more attention, and structure the inquiry and decision in the face of that uncertainty. Some of the uncertainty is resolved by rules of thumb. For example, the prospect of entry more than two years in the future is often discounted or even ignored.

12. But using rules to simplify uncertainty risks producing unsatisfactory decisions. If the positive and negative impacts of a merger, and their probabilities, can be estimated with some confidence, better results could be achieved by basing the decision explicitly on the expected net outcome. The reasons are explained, in terms of decision theory, in Katz and Shelanski (2008). Rules of thumb under merger guidelines may treat low-probability events as impossible, while high-probability events are considered certain. And the test of likelihood may be applied separately to the different factors, such as anticompetitive effects, entry and efficiencies. One of these potential effects would thus be ignored if it did not reach the level of likelihood, that is, a better than even chance of its happening. Less likely outcomes are not considered, even ones that would have major impacts if they did occur. Notably, if there is a greater than even chance of some adverse effect on competition, decisions may disregard efficiencies that would be much greater if they happened.<sup>1</sup> The authors also contend that taking explicit account of the magnitudes and probabilities of harms and benefits would also improve transparency and accountability, because it would make explicit judgments that are already being made implicitly.

## **Regulating conduct – and affecting competition**

13. Measures to deal with the common objects of risk-management can affect competition, sometimes adversely and unnecessarily. These objects typically include harms to health, safety and the environment. Special attention, because of a perception of higher risk, may also be applied to regulation in emerging areas such as bio- and nano-technology. Regulatory responses could distort or constrain market competition in ways that do not contribute to achieving the other policy goals, including the reduction of risk of injury. An overly prescriptive approach to a problem could prevent rivalry and innovation from finding a better way to deal with it. Some commentators would describe any situation of externality or other market failure, even a speculative bubble, as one calling for “risk management” attention; the same cautions would apply.

14. The risks to competition can be illustrated with some of the common regulatory tools for managing risk. One tool is avoidance, that is, prohibiting conduct that is thought to create the risk. But a prohibition that reaches too far can stifle competition and innovation. A less intrusive tool is reduction of the risk through licensing, codes or standards. Here too, setting standards too tightly can prevent entry and innovation and override efficient market choices. Transferring risks through compulsory insurance or other contract arrangements imposes costs, which of course may be offset by benefits. But these devices can also result in discrimination that favours some competitors over others, in ways unrelated to the effort to deal with the risk.

15. Unnecessary constraint on competition should be identified and avoided or corrected. Regulatory responses to risk and uncertainty could impair competition by introducing distortions in the market, by handicapping some competitors while advantaging others, and by discouraging entry or forcing exit. Risk-regulation based on scoring and classification, for example, could be subject to “gaming” with consequences for competition. Scores or classifications impose greater compliance burdens on some market participants, which is of course appropriate where the scores and classifications accurately identify them as posing higher risks. But firms – and regulators – may invoke concerns about unfair competitive disadvantages as reasons to shade scores or change classifications and thus spare some the costs. Or, conversely, some firms may point the inspectors to their competitors in order to gain marketplace advantages. Risk-based regulation should pay attention to whether these effects on competition are really necessary to achieve the other regulatory objectives.

16. Inadvertent or unnecessary constraints on competition could also be counter-productive. An overly risk-averse, prescriptive approach to a problem could prevent rivalry and innovation to find a better way to deal with it. Competition creates information, which might improve the response to the risk at issue. Competition may allow rivalry and innovation to identify better solutions than technologically specific standards could do. Competition could help attain risk regulation objectives.<sup>2</sup>

## **Responding to market crises**

17. Special attention is often directed to risks from low-probability, high-salience events such as natural disasters, terrorism, epidemics and infrastructure collapse. The need to respond in some fashion, quickly, could lead decision-makers to disregard injuries to competition. This concern is particularly acute when the crisis is in the market itself. Market crises resulting in sharp price increases and shortages often lead to demands on competition authorities, such as claims that such market problems are due to collusion or monopoly which they should correct or punish. Sometimes they are asked to intervene even where anti-competitive causes are not evident. This aspect of dealing with concern about risk is of particular current interest, as unexpected market shifts have led to demands for intervention in markets for electric power, oil and food. One challenge in these conditions is to persuade decision-makers and the public that competition is not itself a risk from which consumers and the public should be protected. Rather, strong market competition should improve the capacity to deal with other risks, including risks of market disruption.

18. Price spikes can result from certain sudden, unforeseen changes in market conditions. For example, supply may drop suddenly, if a pipeline shuts down or a production plant has an accident, and prices will rise quickly if short-run demand is inelastic. Expectations about the future may change suddenly, perhaps because of an innovation – or the failure of an expected innovation. Shocks in one market may be transmitted to another, if the supply of a substitute falls unexpectedly or the price of an important input spikes and the increase is passed into the price of the downstream product. Markets can respond when demand or supply shifts. How well and quickly they respond may vary depending on market characteristics. This include whether firms hold inventories, whether prices are fixed while demand is random, whether the industry has incentives to plan (that is, to invest in demand forecasts and production strategies), and the degree of vertical integration. Firms may be able to choose flexible production technologies and capacities. These market characteristics, or rather the potential to make policy choices that change these market characteristics, form the basis for much of the FAO advice on responding to the food crisis.

19. The price of some foods doubled between 2006 and 2008. The price of rice reached a record high in May 2008.<sup>3</sup> Increases in the price of imported food caused the price of non-traded items, such as yams, sweet potatoes and cassava, to rise as consumers substituted away from imported towards locally grown food. (FT 2008b) The effect of rising food prices has been felt unevenly, since consumers in developing countries are more exposed to commodity price volatility than consumers in developed countries. The causes of the price spikes included droughts in key grain-producing regions, increased biofuel demand, rising oil prices and devaluation of the US dollar (OECD-FAO, 2008, *Highlights*, p. 37). Governments responded with measures such as limiting export of agricultural commodities or fertilizer, abolishing import duties on agricultural commodities, increasing the regulated prices paid to farmers, increasing production subsidies and reserving low priced diesel fuel to farm vehicles. The intention of these measures was typically to limit the increase in local food prices. Other responses included “safety net” measures such as subsidized food sales or food distribution to targeted households (FAO, 2008b). Longer-term measures have included vertical integration into production, through buying or leasing agricultural land in other countries, to assure supply sources that bypass international markets.

20. Competition authorities may be under pressure to respond to these high prices. Cartels or monopolies might take advantage of the economic environment. Even a firm that normally lacks market power might be able to raise price for a substantial period in market crisis, if its rivals cannot react. For poorer consumers, short-run demand for staple foods is likely to be highly inelastic, and in those conditions withholding from the market can result in large price increases. The law enforcement response may be difficult. Resources might be wasted addressing a short-term condition that market forces will correct themselves. Yet the crisis might also be an occasion for correcting a latent problem. In many countries, the competition law prohibits abusively high prices. But challenging high prices could discourage investment in the capacity that would moderate them, and dampening price responses can divert resources from the open market to less efficient black markets or smuggling.

21. Emergency interventions that distort competitive markets may be subject to some legal oversight where laws provide for control of state aid. These rules can limit harm to competition that is unnecessary for the attainment of other policy goals, particularly where the intervention takes the form of subsidies or similar firm- or industry-targeted support or protection. The European Union’s state aid rules recognize other policy objectives, and they thus may permit “rescue” aid as a stop-gap allowing a firm in difficulty to start on a restructuring plan. Recently, provisions for “aid to remedy a serious disturbance in the economy of a Member State” have been applied to measures addressing systemic risk in the financial system. The European Courts have said that the “serious disturbance” derogation must be interpreted narrowly, and have also said that the assessment of whether a “serious disturbance” exists falls within the discretion enjoyed by the Commission.

22. Policy responses to the risks of market crisis should not exacerbate market failures. Where high prices are a result, not a cause, policy responses should aim towards improving the functioning of the markets. Claims that emergency conditions demand immediate action overriding other principles should be treated with skepticism, for they may disguise rent-seeking strategies.

#### Notes

1. To illustrate: Suppose there is a 60% probability of €100 million in harm, and a 40% probability of €200 million in benefit. If each factor is subject to a “likelihood” standard, so probabilities below an even 50-50 chance are ignored, this transaction would be rejected. Consumers are more likely than not to be harmed, and the efficiencies are ignored since they are considered unlikely. If the decision were based on the estimated magnitudes and probabilities, though, the transaction would be approved, since the expected benefit, of €80 million, is greater than the expected loss, of €60 million.
2. A well-conceived risk-management approach to non-economic regulation could help build support for comprehensive pro-competition policy, too. By making the reasons for setting enforcement priorities more transparent, the risk-management approach would counter concerns that regulation is the result of anti-competitive rent-seeking.
3. Nonetheless, “in inflation adjusted terms, today’s prices fall well short of peaks achieved in the early 1970s...” (OECD-FAO, 2008, p. 38).

## BIBLIOGRAPHY

- ABA Section of Antitrust Law (1997). *Antitrust Law Developments (4<sup>th</sup> ed.)*, American Bar Association: Chicago.
- Beckner, C. Frederick and Steven C. Salop (1999), “Decision theory and antitrust rules,” *Antitrust Law Journal*, Vol. 67, No. 1, p. 41.
- Berger, James O. (1987). “Statistical Decision Theory,” in *The New Palgrave: Game Theory*, 1989, pp. 217-231. First published in *The New Palgrave: A Dictionary of Economics* ed. by John Eatwell, Murray Milgate and Peter Newman, 1987.
- Carlton, Dennis W. (1989). “The Theory and the Facts of How Markets Clear: Is Industrial Organization Valuable for Understanding Macroeconomics?” pp. 909–46, Ch. 15, in *Handbook of Industrial Organization*, Vol. 1, ed. by Richard Schmalensee and Robert D. Willig. Amsterdam, North-Holland.
- European Commission (2004), “Community Guidelines on State aid for rescuing and restructuring firms in difficulty,” *Official Journal C 244/2*, 01.10.2004 available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2004:244:0002:0017:EN:PDF>.
- European Commission (2008c), “The application of State aid rules to measures taken in relation to financial institutions in the context of the current global financial crisis,” Communication from the Commission, 13 October, available at [http://ec.europa.eu/comm/competition/state\\_aid/legislation/banking\\_crisis\\_paper.pdf](http://ec.europa.eu/comm/competition/state_aid/legislation/banking_crisis_paper.pdf).
- Evans, David S. and A. Jorge Padilla (2004), “Designing Antitrust Rules for Assessing Unilateral Practices: A Neo-Chicago Approach,” *CEMFI Working Papers*, No. 0417, September and AEI-Brookings Joint Center for Regulatory Studies, Related Publication 04-20, available at <ftp://ftp.cemfi.es/wp/04/0417.pdf>.
- Evans, David S., A. Jorge Padilla and Michael A. Salinger (2006), “A Pragmatic Approach to Identifying and Analysing Legitimate Tying Cases,” comments to the Single Firm Conduct and Antitrust Law Public Hearings. Available at [www.usdoj.gov/atr/public/hearings/single\\_firm/comments/219224\\_c.htm](http://www.usdoj.gov/atr/public/hearings/single_firm/comments/219224_c.htm)
- Food and Agriculture Organization of the United Nations (FAO) (2008a), *Rice Market Monitor*, July.
- FAO (2008a), “Assessment of the World Food Security and Nutrition Situation,” Committee on World Food Security, 34<sup>th</sup> Session, 14-17 October. Available at <ftp://ftp.fao.org/docrep/fao/meeting/014/k3175e.pdf/>
- FAO (2008b), “National Policy Responses to High Food Prices,” *Economic and Social Perspectives Policy Brief 1*, July. <ftp://ftp.fao.org/docrep/fao/010/aj113e/aj113e00.pdf>

Hausman, Daniel M. and Michael S. McPherson (1996), *Economic Analysis and Moral Philosophy*, Cambridge Surveys of Economic Literature, Cambridge University Press, Cambridge.

Heyer, Ken (2005), "A world of uncertainty: Economics and the globalisation of antitrust", *Antitrust Law Journal*, Vol. 72, No. 2, p. 375.

Katz, Michael L. and Howard A. Shelanski (2008), "Merger Analysis and the Treatment of Uncertainty: Should We Expect Better?" *Antitrust Law Journal*, Vol. 74, No. 3, pp. 537-574.

Majone, Giandomenico (2006), "Strategic issues in risk regulation and risk management," GOV/PGC/REG(2006)1/ANN1.

Noll, Roger G. (1996), "Reforming Risk Regulation," Brookings Discussion Papers in Domestic Economics, No. 2, April, available at [www.aei-brookings.org/admin/authorpdfs/redirect-safely.php?fname=../pdffiles/phptZ.pdf](http://www.aei-brookings.org/admin/authorpdfs/redirect-safely.php?fname=../pdffiles/phptZ.pdf).

OECD-FAO *Agricultural Outlook 2008-2017* (2008). Also, the same title *Highlights*, available at [www.oecd.org/dataoecd/54/15/40715381.pdf](http://www.oecd.org/dataoecd/54/15/40715381.pdf).