Unified Merger Analysis: Integrating Anticompetitive Effects and Efficiencies, and Emphasizing First Principles Joseph J. Simons¹

One of the great contributions of the 1982 Department of Justice Merger Guidelines² was its recognition of the importance of first principles. The 1982 Guidelines, as they relate to horizontal mergers, organized themselves around the unifying theme of prohibiting transactions that significantly create or enhance the exercise of market power, either by creation of a dominant firm or by enabling multiple firms to engage in tacit or overt collusion. The explanation accompanying issuance of the guidelines stated specifically that the goal of the Guidelines market definition paradigm is to "identify and consider all firms that would have to cooperate in order to raise price above competitive levels and keep them there." Thus, the market definition exercise was geared precisely to the ultimate goal of the Guidelines. The section dealing with Ease of Entry was similarly focused, looking to whether "entry into the market is so easy that existing competitors could not succeed in raising price for any significant period of time…" Perhaps it is time to better emphasize the application of first principles to the analysis of efficiencies, which might actually help better elucidate other aspects of merger analysis as well.

Efficiencies have historically been among the must frustrating issues for antitrust counsel to deal with. At the outset of modern, antitrust merger law, efficiencies were an offense – not a defense. Slowly over time, this situation was reversed as economic analysis increased its significance in antitrust jurisprudence. But merger efficiencies still remain a fairly neglected stepchild of antitrust law and economics.

The Federal antitrust enforcement authorities and the courts to this day focus the overwhelming majority of their efforts in merger analysis on market definition and competitive effects, and to the extent they talk about efficiencies, it tends to be in a derogatory way. One comes away from

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² 1982 Department of Justice Merger Guidelines, reprinted at 4 Trade Reg. Rep. (CCH) ¶ 13.102 (1982 Merger Guidelines).

³ Department of Justice Press Release, reprinted at 4 Trade Reg. Rep. (CCH) ¶ 13.102.

⁴ 1982 Merger Guidelines at § III.B.

experiences with the agencies and the courts with the feeling that efficiencies have a stigma attached to them that is very difficult to erase. Although the rhetoric has improved, the reality has not. As Chairman Muris has observed, "[t]oo often, the Agencies found no cognizable efficiencies when anticompetitive effects were determined to be likely and seemed to recognize efficiency only when no adverse effects were predicted." Essentially, efficiencies have been used as a justification for not finding anticompetitive effect. The only real significance of efficiencies today seems to be as evidence that something other than market power motivated the transaction, which then makes the agencies more comfortable concluding that no anticompetitive effects are likely.

A tighter focus on the first principles of merger analysis with respect to efficiencies as well as competitive effects may improve this situation. Perhaps what needs to be done is to expose the discriminatory treatment given efficiencies versus competitive effects. By making the assumptions underlying the analysis more transparent, the rigor of the overall merger analysis may improve.

Here's what I have in mind. Let's be very specific about the first principle at play – prohibiting mergers that reduce consumer welfare – and apply it equally to competitive effects and efficiencies. The ultimate exercise is to make a prediction about the overall effects of a merger over the reasonably foreseeable future. Now, admittedly this is difficult to do in practice, but if we know what direction we're supposed to be moving in, we have a better chance of getting to where we want to be. And even if we can't get very close given the tools at hand today, better tools will likely be developed over time if there is a perceived need. This has been the experience with market definition and competitive effects analysis under the Guidelines.⁶

From a purely theoretical point of view, the way to determine whether the overall effect of a merger is to reduce consumer welfare is perform what I refer to as a risk adjusted net present value calculation. In other words, we would estimate the magnitude of any price effect⁷, the probability that it will be realized, its timing and duration. We would do the same for efficiencies. That is, we would estimate the magnitude of any efficiencies and their effect on price, the likelihood that they will be realized, their timing and their duration. Then we can see the expected costs and benefits to consumer over time and make a net present value calculation. Whether the merger is challenged or not should depend on whether the NPV is positive or negative for consumers.

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⁵ T. Muris, "The Government and Merger Efficiencies: Still Hostile After All These Years," 7 GEO. MASON L. REV. 729, 731 (1999).

⁶ D. Scheffman, M. Coate, and L. Silvia, "Twenty Years of Merger Guidelines Enforcement at the FTC: An Economic Perspective," 71 ANTITRUST LAW JOURNAL 277 (2003) (market definition and competitive effects); G. Werden, "The 1982 Merger Guidelines and the Ascent of the Hypothetical Monopolist Paradigm," 71 ANTITRUST LAW JOURNAL 253 (2003) (market definition).

⁷ The term "price" used in these remarks is meant to refer to the concept of a quality adjusted price.

Let me provide an illustration. Suppose we are presented with a potential merger of two widget producers and we conclude as follows:

- The market is widgets with 80% probability
- Entry will not occur for 2 years with 80% probability
- Anticompetitive effects (given the market definition and entry conclusions) are a 10% price rise for 2 years with 80% probability
- Marginal cost will decline and impact price by 2% with 70% probability beginning in year 2 and continuing through year 5
- Pecuniary costs will decline and impact price by 1% with 70% probability beginning in year 1 and continuing through year 5
- Fixed costs will decline and impact price by 1% with 70% probability beginning in year 3 through year 5

These assumptions are summarized on the following spread sheet, which performs the net present value calculation for that flow of positive and negative benefits resulting from this hypothetical transaction. It shows that even though the merger is projected to raise price by 10% for two years, the net projected effect on consumers is positive.

Consumer Welfare NPV Spreadsheet								
Competitive Effects	Prob	Harm/Bn	Risk Adj.	Year 1	Year 2	Year 3	Year 4	Year 5
Market Definition	0.80							
Entry Anticompetitve	0.80							
Effects	0.80	-10						
Total	0.51	-10.00	-5.1	-5.1	-5.1	0.0	0.0	0.0
Efficiencies								
Marginal Cost	0.7	2	1.4	0.0	1.4	1.4	1.4	1.4
Pecuniary Benefit	0.7	1	0.7	0.7	0.7	0.7	0.7	0.7
Fixed Cost Benefit	0.7	2	1.4	0.0	0.0	1.4	1.4	1.4
Total Effect				-4.4	-3.0	3.5	3.5	3.5
NPV @ 0.1 0.68								

Now, I am not recommending that the agencies engage in a precise mathematical calculation. We probably do not have the tools, at least not yet, to do that. On the other hand, we can do the analysis in a broad way, be cognizant of the ultimate purpose, and perhaps most importantly, be transparent about the assumptions we are making in our analysis. By being transparent in this fashion, we can expose inconsistencies and flaws, and provide incentives to develop new techniques.

Among other things, this approach helps to define what efficiencies are cognizable, how to evaluate them, and how to weight them. And just as importantly, it does the same for competitive effects. In fact, what it shows is that everything is relative. The larger, the more likely, and the longer the adverse competitive effects, the larger, the more likely and the longer must be the offsetting efficiency effects -- with the weighting determined by the NPV calculation.

For instance, the example in the spreadsheet illustrates that efficiencies occurring in years three through five can be determinative and should not be ignored or treated with the back of the hand. The spreadsheet also shows how competitive effects probabilities can be dependent on market definition and entry estimates, which can focus the mind on the confidence (or lack thereof) with which anticompetitive effects are predicted in many cases. And since everything is relative in this analysis, the level of confidence in the efficiencies necessary to avoid a reduction in consumer welfare is impacted by estimate of the probability of anticompetitive effect.

This analysis also suggests something about burdens. If the plaintiff can marshall facts that, absent efficiencies, demonstrate a harm to consumers, then the plaintiff has made out a prima facie case. If no other evidence (i.e. no efficiencies) is presented, the plaintiff should win. If the defendant can show that the merger will result in likely efficiencies that prevent the price from rising in a net present value sense, the plaintiff has demonstrated that the merger will not reduce consumer welfare. If the plaintiff produces no additional evidence, the fact finder would have no reason to go on and the inquiry should end. If, however, the defendant can refute the efficiencies and/or demonstrate that prices would have been lower absent the merger (i.e. that some or all of the efficiencies are not merger specific), then a harm to consumer welfare has been proven and the defendant should win. Proving lack of merger specificity in the context of a consumer welfare calculation means a showing that the merger would have resulted in lower prices but for the transaction, and that burden should lie with the plaintiff. And given the time it would take to negotiate and execute an alternative transaction, there will usually be a significant timing difference.

Finally, creating a general but clear framework gives the antitrust community direction for further developments in merger efficiencies analysis. Several authors have made significant contributions already in this regard. With respect to static analysis, Greg Werden has developed a methodology for determining the marginal cost reductions sufficient to prevent price increases involving unilateral effects for differentiated products, while Werden and Luke Froeb have

⁸ G. Werden, "A Robust Test for Consumer Welfare Enhancing Mergers among Sellers of Differentiated Products," 44 J. INDUS. ECON. 409 (1996).

develop an approach for homogeneous products. Professor Hausman has an interesting article on this topic as well, suggesting that 50% should be the minimum pass through for marginal cost reductions. The Commission held their Merger Efficiencies Roundtable in December of 2002 in which David Painter made a presentation on the impact of fixed cost reductions on price. This presentation was quite provocative because it argued that actual pricing decisions of real world companies are generally impacted by savings in fixed costs, which is of course contrary to neoclassical economic theory. Perhaps it is time to take a closer look at this topic as well and attempt to develop a means to incorporate the impact of fixed costs savings on short term pricing.

There appears to be a significant desire in the antitrust community to improve the treatment of efficiencies in merger cases. The development of a clear structure for incorporating efficiencies into an overall consumer welfare analysis of mergers may go a substantial way along that road. Hopefully, the framework suggested here will be useful in that regard.

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⁹ L. Froeb & G. Werden, "A Robust Test for Consumer Welfare Enhancing Mergers among Sellers of a Homogeneous Product," US Dept. of Justice Antitrust Division, Economic Analysis Group Discussion Paper 97-1 (1997).

J. Hausman and G. Leonard, "Efficiencies From the Consumer Viewpoint," 7 GEO. L. REV. 707 (1999); but see O. Ashenfelter, "Identifying the Firm-Specific Cost Pass-Through Rate," FTC Bureau of Economics Working Paper No. 217 (1998)(estimating 21% pass through rate for Office Depot/Staples merger).