any real discussion of the rapid growth and increasing risk of off-balance sheet liabilities. Finally, a brief discussion of the securitization of bank portfolios, the bundling and selling of bank loans in secondary markets, and their corresponding impact on liquidity and the need for market value accounting would have strengthened the book.

In summary, this is an authoritative, vigorous, albeit not exhaustive, study that results in a wealth of recommendations whose implementation could greatly ease the present situation and prevent it from deteriorating further. Students, practitioners, and scholars will all benefit by reading it.

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Superfairness
William J. Baumol
Cambridge, Mass.: MIT Press, 1986, 266 pp.

We have long been familiar with fairness as a normative concept. As such, its application was capricious and its implications acceptable only to the extent one accepted the analyst's definition. In this book, William Baumol extends the works of Duncan Foley, E. A. Pazner and David Schmeidler, and Hal R. Varian to provide a positive, analytically useful theory of fairness.[1]

The book, essentially, has two sections; one presenting the theory and the other presenting applications. Chapters 1 through 3 contain the positive theory of superfairness. A distribution of commodities is said to be "superfair" if no participant prefers another's share to his own, that is, if each participant (strictly) prefers his share to that of all other participants. For purposes of application, these definitions are extended. "Incremental superfairness" implies a change in distribution in which no participant prefers another's increments to his own. "Partial superfairness" and "partial incremental superfairness" apply the above definitions to proper subsets of all commodities.

Chapters 4 through 12 contain the applications of the theory of fairness. In Chapter 4, "On Rationing of Scarce Commodities," Baumol draws from a previous article to present an extensive and appealing application of the fairness criterion. Other applications include compensation in the face of negative externalities (Chapter 5), pricing in multiproduct firms (Chapters 6 and 7), peak and off-peak pricing (Chapter 8), taxation and subsidization (Chapter 9), and arbitration (Chapter 12). Baumol also suggests the application of fairness theory to divorce settlements (Chapter 11). Chapter 10 deals with the prevalence of economic illusion.

[1]See Duncan Foley, "Resource Allocation and the Public Sector," *Yale Economic Essays* 7 (Spring 1967): 45–98; E. A. Pazner and David Schmeidler, "A Difficulty in the Concept of Fairness," *Review of Economic Studies* 41 (July 1974): 441–43; and Hal R. Varian, "Equity, Envy and Efficiency," *Journal of Economic Theory* 9 (September 1974): 63–91.

The more tractable definitions of incremental and partial fairness, which are utilized in the applications, are somewhat tainted. Baumol demonstrates that "a move that is both incrementally superfair and a Pareto optimal improvement from an initial position that is superfair can yield a new position that is unfair" (p. 57). Similarly, "a distribution that satisfies a partial fairness . . . criterion is not necessarily fair" (p. 64). Thus, the definitions of fairness that are so philosophically appealing are not necessarily present in the analysis of fairness. For example, price discrimination may prove to be incrementally fair while the resulting distribution is unfair and vice versa.

Aside from the impossibility of inferring fairness from partial or incremental fairness, the concept of fairness in the distribution of commodities has been criticized for ignoring the *process* by which the distribution is generated. In a comment on Baumol's earlier work, Randall Holcombe has noted, "If one person builds two chairs in a day when an equally able person spends the day watching television, it would be fair for the first person to keep the two chairs; yet if their bundles were equally desirable at the beginning of the day, the fair solution according to Baumol would be for each person to own one of the chairs."[2] Holcombe argues for a fair process, not necessarily a "fair" outcome.

Baumol appears to respond to Holcombe's criticism in *Superfairness* by introducing the concept of "contribution fairness" in which no participant prefers another's consumption and labor contribution. Implicitly, when production, saving, or uncertainty is involved, the relevant point for the applicant of fairness theory is *ex ante*. The loser prefers the winner's poker hand. The preponderant consumer prefers the preponderant saver's retirement plan. Yet, presumably, each preferred the process that led to their position. While Baumol pays lip service to the fairness of the process through his introduction of contribution fairness, none of his applications is presented *ex ante* and the concept of contribution fairness is never applied.

For example, in his discussion of the fairness of various rationing schemes, producers of the scarce commodity are not considered. Nor are speculators, who might have stockpiled the commodity in anticipation of rising prices or shortages, considered. The analytical reference point is *after* the imposition of a ceiling price. Similarly, following a demonstration that the use of progressive taxation and transfers to promote absolute income equality would lead to zero output, Baumol considers varying wages across individuals in such a way that absolute income equality is achieved with positive output. The purpose, ostensibly, is to generate a fair distribution that does not seriously reduce output. Once again, the analytical reference is clearly *ex post* and the process is ignored. While no one prefers another's take-home pay *ex post*, many would prefer another's wage rate *ex ante*.

Lest I appear negative with regard to *Superfairness*, let me point out that my only criticism hinges on the *ex post, ex ante* positioning of the application of the theory. If care is taken, fairness analysis has a bright future. This is

[2]Randall G. Holcombe, "Applied Fairness Theory: Comment," *American Economic Review* 73 (December 1983): 1153.

precisely the point Baumol makes about the application of the partial and incremental fairness criterion. I anticipate that in the future, contribution fairness will replace distributional fairness as the dominant measure of fairness.

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