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Reflections on Forecasting in the 1980's

Abstract

Editorial on the Reflections on Forecasting in the 1980's, published in the *International Journal of Forecasting*.

Disciplines

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Editorial

Reflections on forecasting in the 1980's

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This issue marks the end of my term as Editor of the *International Journal of Forecasting*. My term as a Director of the International Institute of Forecasters also ended this year. My involvement has lasted for ten very satisfying years. In this editorial, I present views on the development of forecasting as a scientific discipline during these ten years. The editorial concludes with some personal notes.

Forecasting as a science

In my opinion, the most appealing quality of forecasting as a science is the emphasis on empirical verification. Many areas in the social and management sciences do not allow for an objective testing of the theories and procedures. Forecasting does. Elegance and obfuscation may provide short-term returns for forecasters, but in the end they count for little. Eventually, the researcher must demonstrate that a given theory or procedure leads to an improvement.

Related to the issue of empirical validation is the belief that the researcher's job is to determine which of several theories or approaches is most useful. The advocacy approach, whereby researchers present the evidence favoring their own approach without consideration of alternative approaches, has not fared well in forecasting research during the 1980's.

Two things are necessary to enable a science to focus on comparative empirical validation. The first is the ability to present one's findings: free and open expression is crucial to the acceptance of new ideas. The second is that the findings should be fully disclosed.

These qualities of comparative empirical validation with full disclosure were well expressed in

the M-Competition (Makridakis et al., 1982). Free and open expression of ideas followed with the 'Commentary on the M-Competition' (Armstrong and Lusk, 1983).

The *International Journal of Forecasting* has focused on comparative empirical validation (Armstrong, 1988b). Furthermore, it calls for full disclosure before a paper is accepted for publication. Researchers in forecasting have shared their data and their methods freely. Those who do not, tend to be ignored after a while.

The *IJF* has been successful. It is readable and it is read. It also provides new ideas and new procedures that are used by academics and practitioners (Armstrong, 1988a). It prides itself on being open to new and controversial ideas. It has procedures to give such papers a fair hearing. One such procedure is the 'Note to Referees' whereby authors can request a review based on the design of their study, without revealing the results; this is to provide a fair hearing for papers with controversial results.¹ To my knowledge, no other scientific journal has a better set of procedures.

The International Symposium on Forecasting offers another means for open expression. Its function is to help to integrate the field not only through the presentation of papers, but also through informal contacts. Our policy in the past has been, in effect, that if you are willing to provide full disclosure, you can present your paper

¹ We have been disappointed that the 'Note to Referees' has been used infrequently by authors. On the other hand, we have had only one complaint that the *IJF* is biased against papers with new or controversial findings. This complaint was by an author whose paper was rejected; this author refused to use the 'Note to Referees' even though encouraged to do so.

at the conference.² The emphasis at the conference is on the development of new ideas. It has served this function well.

In summary, the field lives up to high scientific standards. It focuses on comparative empirical validation. To enable this, it aims for free expression as long as full disclosure is provided.

Some personal notes

I owe thanks to Spyros Makridakis who had the vision that the forecasting field needed to be unified, and who asked me to join with him, Robert Carbone, and Robert Fildes. This adventure started in 1980. It led to the founding of the International Institute of Forecasters, two journals (the *Journal of Forecasting* and the *International Journal of Forecasting*), an *IIF Newsletter*, and an annual International Symposium on Forecasting.

Dr. Martha Lightwood has done an excellent job as the copy editor for the journals and newsletter (as well as helping to make my own writing more intelligible). The *IJF* scores well on readability indices and the readers report that it is relatively easy to read, thanks in large part to her efforts.

My thanks to Robert Fildes for his superb ability to organize and manage things, and for the high academic standards that he has always insisted upon.

Thanks to my wife Kay, for managing the ISF in Philadelphia in 1983, and for helping with the planning and negotiations. This conference was one of my most satisfying accomplishments.

Another venture that meant much to me was working with Shelby McIntyre on the Special Issue on Forecasting in Marketing. It was twice as successful as we had hoped for, and became a double issue (issues 3 and 4 of the 1987 volume).

It has been a pleasure to work with the editorial board. The Associate Editors have worked hard to make this venture a success. They work in a cooperative and friendly spirit, looking for ways to improve the journal procedures and helping

authors to improve their papers. I have made many friendships among this group.

The end of my term comes at an opportune time. My work with Fred Collopy on what we call 'rule-based forecasting' has yielded promising results (Collopy and Armstrong, 1989). We are planning an extensive program of research on this topic. Rule-based forecasting is especially appealing to me because it combines my interests in judgmental and quantitative forecasting methods, and it does so with an emphasis on comparative empirical validation with full disclosure.

I look forward to a continuation of the rapid growth of scientific research on forecasting. My expectation is that the *IJF* will continue to be free of any ideology other than that of its scientific mission. I hope the *IJF* will continue to emphasize its strengths which are (1) publishing empirical research that uses the method of multiple hypotheses (Chamberlain, 1965), (2) doing so in a style that is understandable, and (3) publishing opposing viewpoints on this research. Finally, to further our development as a science, the *IJF* should take steps to encourage the replication of important research.

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² This assumes that space is available. With the exception of ISF '84 in London, we have always managed to have enough space.