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The Magnuson Fisheries Conservation and Management Act: An Economic Assessment of the First 10 Years. Discussion

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Jon Conrad has offered a provocative paper addressing the important issue of the effectiveness of MFCMA. The issue is whether we, as a nation, are attaining any or all of the potential rewards from the resources in our 200-mile economic zone.

The author has provided a well-written theoretical section that should be accessible to persons without much background in economics or mathematics. It also provides a reasonably elegant way to establish a working hypothesis, which is purported to be tested in the empirical section. The hypothesis is that the aggregate net revenues in the fishing industry have increased significantly over the period 1977-85 compared with net revenues over the period 1968-76. If one observes a significant increase in net revenues in the post-MFCMA period, we are to conclude that this is both beneficial to the United States and the result of MFCMA.

Ignoring the proof of causality and the data for a moment, one is still left uncomfortable with the conclusion that the U.S. benefits when the hypothesis is true. An alternative conclusion could be drawn from the maintained hypothesis. First, the cost of capital in the latter period was

substantially larger than in the former. This requires greater net revenues to cover the fixed costs. It is also possible, although not likely, that the exclusion of the foreign vessels drove up consumers' prices from imported seafood. If this were true, then there might be nothing more than a transfer of wealth from U.S. seafood consumers to U.S. producers, without any net gain to the United States.

This latter possibility raises a serious conceptual problem with the maintained hypothesis—how do consumers enter into the analysis. Whereas Conrad probably is reflecting accurately the philosophy and value judgments of the National Marine Fisheries Service, the hypothesis and analysis should also reflect consumer welfare. MFCMA would indeed be of little value to the United States if consumption remained the same, producers net revenues rose by \$2 billion, and consumer expenditures rose by \$4 billion. It is recognized that the data problems expand when the consumer is considered, but that is no reason to ignore entirely the conceptual issue.

The empirical analysis in this paper underscores the gap between economic theory and applied economics in fisheries. This gap was made obvious to me the other day when an agricultural economist asked me to cite a "seminal"

applied work in fisheries. Every article which came to mind had serious flaws, mostly relating to data quality and availability. It is particularly troublesome when someone must use vessel costs, as with Conrad. At some point, NMFS should consider undertaking cost studies on a regular basis. Conrad derived costs in a naive but likely necessary fashion. However, it really detracts from my confidence in the results.

There are also some practical problems which must be raised. The analysis does not attempt to remove species which are not under the jurisdiction of MFCMA. Important species such as tuna or menhaden (which is under MFCMA jurisdiction but not managed) can strongly influence the results. The hope or assumption that changes in these extra-jurisdictional species offset one another may be unjustified. In fact, production from most of the extra-jurisdictional species familiar to me have declined over the period of analysis. This would suggest that Conrad's estimates of benefits are understated.

Whereas I likely agree with the conclusions of this paper, it is not because of the analysis. There are good deductive arguments to reach these conclusions, and their force is likely stronger than the evidence presented here. In fact, recent work by Norton, Miller, and Kenney (1985) reaches similar conclusions based on a better analysis, in my opinion. The paper might be stronger if it had accepted the Norton et al. (1985) conclusions and developed more completely some of its interesting thoughts on the development of transferable quota system under MFCMA.

Literature Cited

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