Interregional competition

DISCUSSION: THE EFFECT OF FACTOR PRICING ON INTERREGIONAL COMPETITION AND TRADE*

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Dennis admits to some difficulty in interpreting the assigned title--a difficulty which I share. The paper Dennis has in fact presented might be more accurately described by substituting the words "factor prices" for "factor pricing" in the title. The term "factor pricing" suggests to me that the program planners perhaps had in mind some elements of imperfect competition in factor markets. Dennis, however, has chosen to discuss interregional competition primarily in the customary framework of perfect competition.

The revised title seems to imply one-way causation from factor prices to product competition. But as Dennis correctly points out, since factor demands are derived demands, product competition also affects factor prices. Theoretically, the only way out of this two-way interdependence dilemma is by development of more "complete" models in which both factor and product demand and supply relationships are considered.1/ The important questions from an empirical point of view, it seems to me, are (1) deciding under what circumstances we can safely ignore the more "complete" framework and (2) when we cannot, developing suitable simplifications for the problem at hand. Dennis has had considerable experience in these kinds of problems. I believe the content of his paper would have been improved had he pursued these questions in more depth.

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1/ For a step in this direction, see the study by King and Schrader (5) in which feed grains and feeder cattle are included explicitly as "factors" priced simultaneously along with the finished product, fed beef.

While Dennis does not really develop ways in which we might approach problems in which there is an important interdependence between product and factor markets, he does concentrate primarily on general problems on the product-supply side of interregional competition studies. I think this emphasis is well placed. Adequate representation of supply relationships undoubtedly has been the weakest component of most interregional competition studies. Dennis suggests a breakdown of previous studies into those assuming "fixed supply" and those involving "variable supply." I think a more meaningful breakdown might be into the following three categories, depending on the length of run assumed and the relative fixity of factors: (1) Product supply perfectly inelastic, referring to the very short-run situation with all factors essentially fixed; (2) Product supply perfectly elastic, referring to the very long run with all factors variable and factor prices unaffected by increases in product supply; (3) Product supply some positive function of price, referring to cases of intermediate run in which some factors are fixed while others are variable.

Most interregional models have adopted either one or the other of the first two extreme assumptions regarding product supply.[2/] However, the major emphasis in most interregional studies has been on the long run where, as Dennis states, "We want to determine where the raw materials will be produced, where the product will be processed, how and to what markets the product will be transported and at what price the product will be sold." In studies where the product-supply function in each region has been taken to be completely elastic at a price equal to production costs, strange solutions have often emerged, such as the total U.S. supply of turkey coming from Arkansas (1). Even in studies where the solutions to such long-run models have not been so obviously untenable, authors have often been sufficiently uncomfortable with the results

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2/ For an exception see the study by Bawden, Carter, and Dean (1).

obtained to add certain additional restrictions. Dennis and Sammet (3), for example, specified an upper limit to expansion of 75 percent in any geographic area in one of their models of interregional competition in strawberries. This is a step, but rather an arbitrary one, in the direction of recognizing the third case outlined above where product supply is some function of price.

I would like to have seen Dennis push further in discussing the third case above of functional supply relationships instead of simply recognizing the difference between "statistical supply functions" and "cost-based supply functions." It would be helpful to know which approach Dennis favors and why. He shows no great enthusiasm for statistical supply functions, yet feels that to obtain product-supply functions based on factor costs and production functions is so difficult and costly as to become "nearly unthinkable." I am not so pessimistic. Also, Dennis gives us no hint of how he feels about other methods, such as the method of "flexibility boundaries" restraining supplies such as those employed by Henderson (4), Day (2), and Schaller (6).

Dennis has presented an interesting paper. However, I wish he would have given us the benefit of more of his insight into the empirical problems in interregional competition, particularly on the supply side, based on his excellent work in this area.

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REFERENCES

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