Commentary

D.Gale Johnson

My good friend Ed Schuh has left me little to say. He has presented a first rate summary of the existing state of the art of agricultural trade modeling. He then goes on to indicate the major issues that are left unresolved or where very great difficulties exist in implementing what we know should be implemented. He concludes with some useful and important suggestions for guiding future modeling efforts.

Money Matters

I am in agreement with Schuh in giving emphasis to the need for greater attention to monetary phenomena in modeling international trade. As Schuh notes, with floating exchange rates, monetary policy has a number of effects, depending of course upon the nature of that policy. A tight money policy results in capital inflows and a rise in the value of the dollar, while an easy money policy results in capital outflows and a decline in the value of the dollar. Schuh then argues that a tight money policy is responsible for a decline in the competitiveness of the export sector. This is the case in the short run, but it is not so obvious that long-run effects of a tight money policy on exports will be so adverse. If carried on long enough, the reduction in the rate of inflation and the increase in capital inflow could result in changes that will have a positive effect upon the export sector. These might include increased investment in research and development, greater investments in the farm supply sector, and improvements in the transport and marketing system for agricultural products. While not directly relevant to agriculture, the experience of both Germany and Switzerland during the 1970s indicates that if pursued consistently over an extended period of time, a tight money policy and a moderate rate of inflation do not inhibit export industries. Trade surpluses were generated in both countries as their exchange rates increased relative to the dollar and almost all other currencies except for the yen. I mention the long-run effects of monetary policies on export sectors to indicate that we cannot move directly from the short-run effects to those that might prevail in the long run. I do not mean to imply that Schuh so stated; I do want to indicate that the long-run effects of monetary policies may be both different and more complex than the short-run effects.

Quantities vs. Prices

I have grave doubts, as does Schuh, about our capacity to project or predict trade flows and about how important it is to project such flows except as reflecting trade policies of either the exporting or importing nations. In fact, I suspect that one of the most important reasons we have had such poor luck in projecting trade flows, either ex post or ex ante, is to be found in the Grennes, Paul Johnson, and Thursby analysis of price differences among grades and qualities of what is commonly called the same commodity, such as wheat, rice, or cotton. What may actually be of more interest than trade flows of wheat may be understanding why the relative prices of different grades of wheat vary from time' to time. For example, in 1977 the average prices of the following types and grades of wheat in Rotterdam were: U.S. No. 2 Hard Winter, 13.5 percent protein, \$113 per (metric) ton; U.S. No. 2 Dark Northern Spring, ordinary protein, \$126 per ton; and No. 1 Canadian Western Red Spring, 13¹/₂ percent protein, \$133. In March 1979 the prices per ton were, respectively, \$165, \$164, and \$164. Trade flows or market shares, as measured in terms of quantity, were certainly different between the two time periods. But I'm not sure what relevance trade flows, as such, have to understanding the incomes of farmers, our trade balances, or the size of stocks at any given time.

Trade flows can be affected by governmental policies, as we saw during the 1960s when the U.S. and Canada were willing to hold large stocks of wheat, while Australia and Argentina were quite willing to accept the price stabilizing effects of those stocks and to sell whatever grain was available. Clearly when trade flows are not determined by competition, it may be possible to derive meaningful information from the trade flows. It may also be possible to use specific departures from competition in estimating trade flows.

Commentary

Though even in this case I believe the price effects are more important than the matrix of commodity movements.

Governmental Policies

What I shall now say is not intended as criticism of trade modeling but has the purpose of indicating how complex it is to derive empirically valid or relevant models when governmental interventions are involved. Perhaps the most striking cases in recent times were the policy changes that occurred in the Soviet Union in 1963 and again in 1971, the first in response to a poor crop that threatened the human consumption of grain and the second in response to consumer demand for livestock products. The earlier change resulted in grain imports rather than imposing the potential threat of hunger or famine, as had occurred in 1947, in the early 1930s, and in the early 1920s. A poor grain crop in 1965 resulted in the same response, namely significant grain imports. In both 1963 and 1965 the grain shortfalls resulted in reductions in the animal feed supply and subsequent reductions in the livestock herd and meat availability.

In 1970 or 1971 a decision was made to significantly increase the amount of grain for feed even at the expense of a reduction in grain exports or at the cost of actual grain imports. The decision made in 1970 or 1971 — implementation apparently occurred in 1971 — has had a great impact upon trade flows. Could this change have been anticipated in time to have permitted its effects to be reflected in trade models? I think not, though I hasten to add that this is not the fault of the trade models since the policy change was generally detected only a year or two after the fact. In such areas, the Soviet Union has been able to maintain a monopsonistic advantage through secrecy.

Other policy modifications of major significance may be briefly noted. One was the decision of the Japanese government, made in the late 1950s, to encourage or permit the production of livestock products. This meant a shift away from rice as the principal source of calories. It also meant that during the first half of the 1960s, grain imports increased by 150 percent and then nearly doubled again in the next decade.

The People's Republic of China during the past two decades has made a series of decisions affecting grain imports. One was the decision to import grain in 1961 for the first time since liberation; grain imports generally increased until the early 1970s and then were sharply reduced by 1975 and 1976, though there is absolutely no evidence that domestic supplies were more adequate in those years than in the years of larger imports. But with generally improving per capita grain production, grain imports more than trebled in 1977 compared to 1976 and more than doubled in the next three years. Could these changes have been predicted ex ante? I doubt it.

In this discussion of policy changes that have made a difference, I should not exclude the major U.S. policy changes with respect to price supports and governmentally held stocks that have had a very great influence upon the amount of international trade in several products, in trade flows, in international prices, and in the U.S. role in international trade. The gradual transition from the relatively high price supports of the 1950s to the low price supports by the end of the 1960s, and continuing throughout the 1970s, had enormous consequences. It is possible that the policy changes in the Soviet Union, Japan, and China could not have occurred or been implemented without the change in U.S. farm price and export policy. But it may be equally true to say that the U.S. policies would not have changed if the other policy changes had not occurred.