The three papers on international prices by Murphy, Kasper and Pratt, and Carpenter, Bishop and Goudie, progress from general to specific and provide an interesting view of a major governmental statistical program. The authors are to be commended for a series of papers which, taken together, give a rather comprehensive view of the nature of some of the problems faced in measuring export and import prices.

I will focus my comments on the paper by Marvin Kasper and Richard Pratt and for those interested in survey methodology this is the central paper of the three which have been presented. There are, however, a number of other points regarding this statistical program. First, while many have noted the need for export and import price indexes, policymakers and analysts have had to make do with unsatisfactory unit value proxy measures for analyzing export and import prices. The paper by Murphy provides an illustration of this point. It shows that over the 1972-1977 period the unit value index for machinery and transportation equipment was not only consistently higher than the corresponding export price index, but showed erratic quarterly variations. This result, for a major U.S. export category, has significant implications for both statisticians and policymakers. Second, despite the increased importance of international trade, the U.S. has lagged two of our major trading partners (West Germany and Japan) in developing adequate measures of price movements in international trade. Third, as the usefulness of these price measures becomes more apparent, it is likely that other countries will begin the process of developing adequate measures of export and import prices. It is in this latter context that the papers presented today will perhaps be most useful since they deal with a number of practical problems in developing price measures. A final point about this program is in order. While normally one would prefer information obtained from the entire universe, the measurement of export and import prices is an example of a case where a sample from a universe provides information which can not be obtained from the universe and where a sample is not only acceptable but is to be preferred. With rapid changes in product mix the rule, and homogeneity assumptions questionable even for many seven digit agricultural commodity groups, movements in unit values obtained from the universe frequently do not reflect movements in prices and that, among other things, makes "comprehensive" unit value measures inappropriate for price measurement.

The survey problem addressed by Kasper and Pratt in measuring international prices is unusually complex. As noted by the authors,

"international trade is characterized by a highly volatile market in which establishments (particularly importers) change product areas." The survey design had to select establishments and product lines that were repriceable over time.

As might be expected, selection of a sample frame is aided by information on the frequency or consistency with which a firm imports or exports. Kasper and Pratt show clearly in their discussion of import frame preparation and in Tables III and IV, this importance of consistency in achieving the objective of obtaining repriceable establishments and items. Table III shows that 74 percent of all company ELI's (Entry Line Items) were inconsistent and these accounted for no more than 8.5 percent of the total dollar import value. By contrast, at least 86.5 percent of the import dollar value was accounted for by no more than 20 percent of the total number of company ELI's. Table V also shows that the higher the consistency ranks, the better the corporation rate.

Export frame preparation is also discussed by Kasper and Pratt. The basic difference is that while imports "uses a universe file of 1.5 million documents, representing some 60,000 importers" the sample file for exports ". . . contains a sample of approximately 12,000 documents representing 3,000 exporters . . . ." With only a sample of Shipper's Export Declarations (SED's), the "consistency or frequency with which a company exports particular products is not available for exports and this information cannot be used in obtaining a sample of exports (first stage) or in subsampling within an exporter (second stage)." The basic problem faced in dealing with exports, is that the Census Bureau computer file on the SED does not contain a unique exporter code or the name and address of the exporters. This is the reason why the double sampling technique is used and the man-machine system for matching company documents by Carpenter, Bishop and Goudie was developed.

Apparently the matching system developed by Carpenter, et.al. is an improvement over the system used previously, with improved accuracy, reduced operator tedium, and a 20 percent reduction in manpower and operating costs. However, the authors note that manpower and operating cost ". . . reductions do not in themselves justify the development cost of the system since the payback time would be 8-10 years." It would be interesting to know if the authors feel that their system might be useful for countries where company identifiers may not be available or cost-effective.

The papers by Kasper and Pratt and Carpenter, et.al. suggest that there is a

strong reason to investigate the possibility of adding an identification code to the SED. This is presently under active consideration by the Interagency Committee on Foreign Trade Statistics and, aside from benefits to the price program, may have important implications for export report burden reduction since the same frequency information which aids sample selection also helps to identify those exporters where different reporting techniques could yield significant report burden reduction.

In closing, I would again like to thank the authors for providing substantive papers on a very important statistical program. I suggest that those interested in policy implications should consider the implications of the results presented in the paper by Murphy, and those interested in sampling problems read the papers by Pratt and Kasper and Carpenter, Bishop and Goudie. While it is clear that the export sample frame can be improved by addition of a company identifier on the SED, the matching techniques developed by Carpenter, et.al. are likely to continue to be useful for dealing with the small but potentially significant mismatching which is likely to continue even after a company identifier is available. Finally, these papers have potential for application in countries considering implementation of export and import price programs.