accounting framework on each household's activities. This is a very time-consuming and complex operation, and the value so obtained is likely to be an extremely noisy estimate of the underlying theoretical magnitude, even supposing that the theory has any behavioral relevance. For example, an appropriate accounting framework might well include some allowance for depreciation of assets, tools, buildings, trees, and animals. Yet unless farmers actually think in those terms, it is unclear that the measure will be useful in understanding the farmer's behavior, however relevant it may be for measuring welfare.

A further major issue is how to handle *autoconsornrnation,* that fraction of consumption that is produced (or grown, hunted or bartered) by the household without going through a market. Some societies, for example large fractions of rural West Africa, are not extensively monetized, and in extreme cases, non-monetized transactions may account for nearly a half of GDP. [Heston (1994)], and a good deal more of consumption. The standard survey procedure is for values to be imputed to such consumption, typically by surveying quantities, and then by multiplying by some suitable price. The results are added to consumption purchased in markets, as well as to the value of total income. Some mechanical and apparently sensible imputation algorithms can give absurd results. For example, in one comprehensive African survey, values were imputed for water consumption. Where no price was available for a particular transaction, imputation was done at the average of the prices reported by those households who did make monetary purchases. However, the only observed prices for water were for bottled water in the main city, so that rural households were credited with very high levels of total consumption and income, much of it "Perrier" from the local river. Such extreme cases are rare, but the problems are not.

The choice of prices for imputation is rarely obvious; selling prices differ from buying prices, and there are often quality differences (perhaps better, perhaps worse) between goods sold and those retained for home consumption. In extreme cases, where monetization is the exception rather than the rule, *autoconsommation* is the tail that wags the dog; not only is most of consumption measured by making essentially arbitrary assumptions, but there must be legitimate doubts as to the usefulness of imposing a market-based accounting framework on a household or village economy in which markets play little part. Even if all these problems are solved (or ignored), it should always be borne in mind that any errors of imputation will be common to both consumption and income — and perhaps other variables, such as landholdings, or agricultural output — and the communality must be taken into account when the effects of measurement error are being explored.

Note finally that the decision of what to impute is largely arbitrary. By convention, home produced goods are included, but most home produced