

only within wide limits unless the items are very numerous. Further, even for a large number of items, the median and mode have serious defects for our present purpose:¹ these two averages are influenced only slightly, if at all, by substantial changes among the relatives, and the mode may be indeterminate. Our discussion of averages starts, therefore, with the assumption that the arithmetic, harmonic, and geometric means are more appropriate for our purpose than are other and less familiar averages.

The price relatives to be averaged are, as we have said, independent of the units of quantity with respect to which prices are expressed. This fact does not mean, however, that an average corresponding to a useful concept can be obtained without taking into account the aggregate quantities with which the relatives are associated. That is, in general we can not legitimately assume that it is possible to obtain a useful average of price relatives without weighting the relatives in proportion to quantities. Further, since the quantities of various commodities are expressed in terms of incommensurable units — bushels, tons, yards, feet, number — and since, from the point of view of economics, the only unit which all quantities of all com-

¹ For other purposes (such as the measurement of seasonal variation) the median or mode may, of course, be more appropriate than the arithmetic, harmonic and geometric means.