

(3) *Index adjusting for the composition of demand.*—Each type of goods or service produced in the economy requires at any given point in time a certain amount of labor and capital for its production. The amount of each will depend on the state of technology, the character of the goods or services produced and the ratio of output to capacity. Naturally in historical series of data, changes in the composition of demand could bring about changes in the amount of goods and services that could be produced with given amounts of labor and capital if the change in the aggregate meant a shift toward products and services requiring more labor or more capital or less of either or both. In the measurement of productivity, this so-called mix effect has been widely recognized (35).

The procedure employed was to construct an index which measured the changes in the amounts of labor and capital required to produce a dollar of output of each of the major classes of goods and services measured in the GNP in constant dollars. The index was constructed by applying a set of capital-output ratios and a set of labor-output ratios to each of a number of categories of goods and services among the components of GNP (36). This variable, denoted X_a , is shown on chart IV.

It may be noted that the major influences on the movements of this index over time have been the decline in the relative importance of agriculture, shifts between goods and services, and shifts between government and private shares in the total GNP. The index also reflects in wartime the extreme shift of demand to fit the requirements of the war effort. In general, as will be noted on Chart IV, the economy can produce more from a given amount of capital and labor with the wartime composition of demand than when a more nearly peacetime composition of output is demanded.