Book Reviews

A Theory of the Consumption Function. National Bureau of Economic Research, No. 63, General Series. Milton Friedman. Princeton University Press, Princeton, 1957. xvi + 243 pp. $4.75.

Milton Friedman's hypothesis, formulated and, to his own satisfaction at least, demonstrated in *A Theory of the Consumption Function* is twofold: (i) consumption is a function of "permanent" income; and (ii) the ratio of the two does not depend on the *level* of income.

In an opening discussion devoted to pure theory, Friedman essentially sets up a utility function of present against future consumption, specifies (implicitly) that all permanent income is spent over the relevant time period, presumably the lifetime of the individual, and defines permanent income as that amount of receipts the consuming of which leaves wealth intact. Under these conditions, the two major reasons for not spending all receipts in a given period are the desire to straighten out the consumption stream to correspond more closely to the level of permanent income and the desire to earn interest on savings. With an uncertain future, the individual, in making provision against the future, will also tend to vary the fraction of income spent on consumption in accordance with the amount of wealth he owns relative to his income. Friedman goes on to *assume* that the marginal rates of substitution of present against future consumption are homogenous, of degree zero in their ratio—that is, the level of consumption or income has nothing to do with the saving rate. Similarly he assumes that the distribution of individuals by their ability to earn interest, their wealth-income ratios, and their utility functions is independent of their distribution by income. The combination of these two assumptions, the second of which is particularly dubious, yields the proposition that aggregate consumption is a fraction of permanent income which does not vary with the level of income.

The remainder of the book is devoted to demonstrating how two basic sets of empirical data are consistent with the permanent-income hypothesis. Cross-sectional budget studies consistently show a marginal propensity to consume less than the average propensity—that is, an income elasticity of less than one. Yet, over time, the average propensity to consume has been fairly stable. If transitory or temporary income constitutes a larger proportion of measured income among high-income than among low-income groups, then budget studies will show an income elasticity of less than one, even though consumption is a constant fraction of *permanent* income. At the same time, since this fraction is constant, the less-than-one income elasticity of consumption shown in budget studies will not result in a secular change in the average propensity to consume.

Similarly, in aggregate time-series data the permanent-income hypothesis will account for the fact that consumption reacts in a damped way to cyclical changes in income. Since such changes are considered to be in part transitory, and not permanent, consumption adjustments are smaller than income changes. Friedman calculates an aggregate consumption function to fit the time-series data (using a weighted average of past incomes, with weights declining backward in time.)

Friedman's work is indeed a notable contribution to the theory of consumption. His brilliant and subtle exploitation of the data to bolster his hypothesis at many points borders on sheer genius. However, in my judgment the permanent-income hypothesis must be accepted merely as an additional factor shaping consumption behavior. The claim that it is a hypothesis which explains all the major features of consumer behavior must be rejected for a number of reasons.

(1) There is in the book far too much indiscriminate hacking about with Occam's razor (to borrow a phrase of D. H. Robertson). On a number of occasions the reader is urged to accept the hypothesis on the grounds that it is the simplest single explanation of so many empirical facts. Indeed, in this field, any attempt to explain complex human behavior by a simple explanation is automatically suspect.

(2) Aside from some interesting speculations in the first section of chapter III, Friedman finds it quite impossible to formulate an operational definition of permanent income. That consumers do distinguish between windfall changes in income and changes expected to be more permanent is indeed a fruitful intuitional conclusion but hardly a solid enough base on which to build the superstructure which Friedman has erected.

(3) There is no proof whatsoever, in the pure theory section, of the assertion that the fraction of income consumed is independent of the level of income. And any number of hypotheses—for example, positive correlation in budget arrays between wealth-income ratios and income and a stable aggregate wealth-income ratio over time—would account for the failure of consumption to rise secularly at a slower ratio than income. Consequently, Friedman's bold conclusions about savings-income relationships in underdeveloped countries are not warranted either by his theoretical structure or his data.

(4) Friedman's structures against "Keynesian" cyclical analysis are also overdone. At best he merely shows that consumption has a damped response to cyclical changes in income. And indeed his own aggregate function errs in the opposite direction. It sails right through four of the eight consumption downturns since 1905—unlike Dusenberry's function, which catches seven of the eight declines.

(5) Finally, Friedman appears to have proved too much. For if consumption changes only with permanent income, is it not logical that it varies only with permanent changes in real wealth? And if so, one of the major weapons of the "Chicago" quantity theorists against the theory of underemployment equilibrium is seriously weakened. For depression price cuts which raise real wealth balances will surely be regarded, in part at least, as "transitory."

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The Stars above Us. Or the conquest of superstition. Ernst Zinner. Translated by W. H. Johnston. Scribner's, New York, 1957. xiv + 141 pp. Illus. $3.

A dean of historians of astronomy, out of his vast erudition, has brought forth a trivial pamphlet of questionable value, which does not do him justice. This slim volume is not intended as a history of astronomy, nor is it meant to refute astrologers or instruct in modern astron-