Permanent income hypothesis .

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Permanent Income Theory of Consumption:

Permanent income theory of consumers' behaviour has been put forward by a well-known American economist, Milton Friedman. Though Friedman's permanent income hypothesis differs from life cycle consumption theory in details, it has important common features with the latter. Like the life cycle approach, according to Friedman, consumption is determined by long-term expected income rather than current level of income.

It is this long-term expected income which is called by Friedman as permanent income on the basis of which people make their consumption plans. To make his point clear, Friedman gives an example which is worth quoting. According to Friedman, an individual who is paid or receives income only once a week, say on Friday, he would not concentrate his consumption on one day with zero consumption on all other days of the week.

He argues that an individual would prefer a smooth consumption flow per day rather than plenty of consumption today and little consumption tomorrow. Thus consumption in one day is not determined by income received on that particular day. Instead, it is determined by average daily income received for a period. This is on the line of life cycle hypothesis. Thus, according to him, people plan their consumption on the basis of expected average income over a long period which Friedman calls permanent income.

It may be noted that permanent income or expected long-term average income is earned from both "human and non-human wealth". The income earned from human wealth which is also called human capital refers to the return on income derived from selling household's labour services, that is, efforts and abilities of its labour.

This is generally referred to as labour income. Non-human wealth consists of tangible assets such as saved money, debentures, equity shares, real estate and consumer durables. It is worth noting that Friedman regards consumer durables such as cars, refrigerators, air conditioners, television sets as part of households' non-human wealth. The imputed value of the flow of services from these consumer durables is considered as consumption by Friedman.

Relationship between Consumption and Permanent Income:

Now, what is the precise relationship between consumption and permanent income (that is, the expected long period average income). According to permanent income hypothesis, Friedman thinks that consumption is proportional to permanent income

$C^P = kY^P$

where

Y^p is the permanent income

C^p is the permanent consumption

k is the proportion of permanent income that is consumed.

The proportion or fraction k of permanent income that is consumed depends upon the following factors:

1. Rate of interest (i):

At a higher rate of interest the people would tend to save more and their consumption expenditure will decrease. The lowering of rate of interest will have opposite effect on the consumption.

2. The proportion of non-human wealth to human wealth:

The relative amounts of income from physical assets (i.e., non-human wealth) and income from labour (i.e., human wealth) also affects consumption expenditure. This is denoted by the term w in the permanent consumption function and is measured by the ratio of non-human wealth to income. In his permanent income hypothesis Friedman suggests that consumption expenditure depends a good deal on the wealth or assets possessed by the people. The greater the amount of wealth or assets held by an individual, the greater would be its propensity to consume and vice-versa.

3. Desire to add to one's wealth:

Lastly, households' preference for immediate consumption as against the desire to add to the stock of wealth or assets also determines the proportion of permanent income to be devoted to consumption. The desire to add to one's wealth rather than to fulfill one's wants of immediate consumption is denoted by u.

Thus rewriting the consumption function based on Friedman's permanent income hypothesis we have

$C^p = k (i, w, u) Y^p$

The above function implies that permanent consumption is function of permanent income. The proportion of permanent income devoted to consumption depends on the rate of interest (i), the ratio of non-human wealth to labour income (w) and desire to add to the stock of assets (u).

Permanent and transitory income:

In addition to permanent income, the individual's income may contain a transitory component that Friedman calls as a transitory income. A transitory income is a temporary income that is not going to persist in future periods. For example, a clerk in an office may get a substantial income from overtime work in a month which he thinks cannot be maintained.

Thus, this large overtime income for a month will be transitory component of income. According to Friedman, transitory income is not likely to have much effect on consumption.

Thus, income of an individual consists of two parts, permanent and transitory, which we may write as under:

$$Y^M = Y^p + Y^t$$

where Y^M is measured income in a period, Y^p is the permanent income and Y^t is transitory income.

Measuring permanent income:

To make the permanent income hypothesis operational we need to measure permanent income. Permanent income, as is generally defined is "the steady rate of consumption a person could maintain for the rest of his or her life, given the present level of wealth and income now and in the future."

However, it is very difficult for a person to know what part of any change in income is likely to persist and is therefore permanent and what part would not persist and is therefore transitory. Friedman has suggested a simple way of measuring permanent income by relating it to the current and past incomes. According to him, permanent income is equal to the last year's income plus a proportion of change in income occurred between the last year and the current year.

Thus, permanent income can be measured as under:

$$Y^p = Y_{t-1} + a(Y_t - Y_{t-1}) \quad 0 < a < 1$$

$$Y^p = aY_t + (1-a) Y_{t-1}$$

Let us illustrate this with an example. Suppose, the proportion of change in income in the last year and the current year equals 0.6 and the last year's income (Y_{t-1}) is Rs. 80,000 and the current year's income (Y_t) is Rs. 85.000, then from above equation permanent income can be estimated as under.

$$Y^p = 0.6 (85,000) + (1-0.6) 80,000$$

$$= 51,000 + 32,000$$

$$= 83,000$$

It is worthwhile to note the two features of the above equations estimating permanent income. First, if $Y_t = Y_r$ it implies that current year's income is equal to last year. This further means that last year income is being maintained and therefore the individual would expect to earn the same income in the future also.

In this case then permanent income is equal to the current or last year's income. Secondly, when income of an individual increases in the current year as compared to the last year, the permanent income will be less than the current year's income. This is because individual is not sure whether the increase in income will persist in the future and therefore does not immediately revise his estimate of permanent income by the full amount of the increase in his income in the current year.

Permanent Income, Long-Run and Short-Run Consumption Functions:

Now, having known the meaning of permanent income and permanent consumption we can describe the precise relationship between consumption and income both in the short run and the long run as under.

$$C = kY^p = kaY_t + k(1-a) Y_{t-1}$$

In the above consumption function ka is the marginal propensity to consume in the short-run which is obviously less than the long-run marginal propensity to consume which is equal to k. Thus, according to Friedman's permanent income hypothesis, short-run marginal propensity to consume differs from long-run marginal propensity to consume, the latter being greater than the former. Further, k (1-a) Y_{t-1} is the intercept of the short-run consumption function.

Friedman's permanent income hypothesis is illustrated in Figure 7.5. It shall be seen from this figure that permanent consumption function is represented by the long-run consumption function curve C_{LR}, (C_{LR} = kY^p). This long-run consumption function shows the proportional relationship between consumption and income and is a straight line passing through the origin which implies that APC is constant and is equal to MPC.
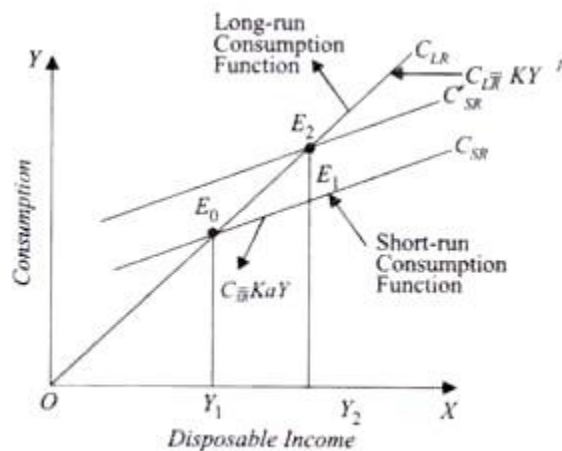

Fig. 7.5. *Permanent Income Hypothesis : Long-Run and Short-Run Consumption Functions*

In accordance with permanent income hypothesis, short-run consumption function curves are flatter as compared to the long-run consumption function curve indicating that the short-run marginal propensity to consume is lower than long-run marginal propensity to consume. The reason for this is that the individual is not sure whether the increase in income will persist over the longer period which determines the consumption plans of individuals.

Therefore, the individuals do not fully adjust their consumption expenditure according to their higher current income than would be the case if the current increase in income is expected to be permanent. If the rise in income happens to be permanent, that is, if the next year's income is equal to the higher income of the current year, the individual will fully adjust his consumption expenditure to the higher income level.

It is important to note that in our above analysis we have assumed that full adjustment of consumption expenditure to change in income takes place in two years time. In this case permanent income is the average of the two years incomes. However, in real world permanent income depends on expectations of income for a much longer period depending upon the vision of the individual. In case of longer vision adjustment of consumption expenditure will take place slowly over a long period.

However, if the individual is sure that the increase in income is permanent he will adjust his consumption quickly to higher current income. It, therefore, follows that whereas in the short run average propensity to consume falls as income increases because people are not sure whether the increase in income will persist or not. But when they actually find that the increase in income is permanent, they fully adjust their consumption to their higher permanent income as reflected in the long-run consumption function.

Conclusion:

Permanent income hypothesis is similar to life cycle hypothesis and differs only in details. Like the life cycle hypothesis, permanent income hypothesis can explain the puzzle about the relationship between consumption and income, namely, whereas in the long-run time series data, consumption- income ratio (i.e., APC) is constant, in the short run it declines with the increase in income as we have seen above. The permanent income hypothesis is quite consistent with the constancy of APC in the long run and its variation in the short run.

Permanent income hypothesis is also consistent with the evidence from the cross-sectional budget studies that high income families have low average propensity to consume than that of low- income families. A sample of high income families at a given time is likely to contain a relatively larger number of families who are having positive transitory increase in incomes. Since the consumption depends on permanent income, the average propensity to consume computed as the ratio of consumption to measured income [$APC = C/Y^m$]

where $Y^m = Y^p + Y^t$ will be relatively low. On the other hand, a sample of families with low income at a given time would contain a relatively larger number of families experiencing negative transitory incomes and therefore in their case the average propensity to consume estimated as $C/Y^p + Y^t$ will be relatively high.

Further, by laying stress on changes in rate of interest and the wealth or assets held by the people and desire to add to one's wealth as important determinants of consumption and savings, Friedman's permanent income hypothesis has made an important contribution to the theory of consumption and saving.