Per Capita Income, the Growth of Income and the Savings Ratio

If the growth rate, and the level of per capita income, can be raised by government policies which induce capital formation and lower the capital-output ratio, the domestic savings ratio may rise independently of the inflation rate because of the dependence of the savings ratio on the level of per capita income and the growth of income itself. The time series and cross-section evidence is overwhelming that the savings ratio is positively related both to the level of per capita income as a measure of living standards and also to the growth of income.\(^1\) Economic theory predicts a positive relationship. The interdependence between savings, growth and per capita income presents statistical identification difficulties in the estimation of the precise relationships, but the fact that there is mutual dependence suggests that development via capital formation is a cumulative process which, if given a push, can gather its own momentum.

\(^1\) Saving in most countries is defined as the difference between investment and foreign capital inflows. It should be pointed out from the outset that part of the reason for the strong positive relation between the savings ratio and the level of per capita income may be the result of the fact that as development proceeds investment expenditure is more faithfully and accurately recorded. In the traditional agricultural sector of developing countries it is often difficult to separate consumption and investment decisions and a large part of investment may go unrecorded. Moreover, the large discrepancies in recorded savings ratios between rich and poor countries should not be taken as indicative of such large discrepancies in levels of investment. A lot of consumption in developing economies represents forms of investment.

A. P. Thirlwall, *Inflation, Saving and Growth in Developing Economies*  
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Per Capita Income and the Savings Ratio

Let us call the relation between the savings ratio and per capita income the Keynesian income hypothesis. Keynes revolutionised macro-economic theory by relating aggregate saving ($S$) to aggregate income ($Y$). Specifically, Keynes seemed to be hypothesising a savings function of the form $S = f(Y)$, where $f' > 0$, and $f'' > 0$, such that the savings ratio would rise with the level of income. The hypothesis of the consumption–income ratio falling and the savings ratio rising with the level of income can also be represented by a linear savings function with a negative intercept (shown in Fig. 7.1), which is frequently found when cross-section studies of saving in relation to income are undertaken.¹

![Fig. 7.1](image)

The saving function, $SS$, drawn in relation to the 45° line shows saving growing as a proportion of income. In equation form

$$S = -\alpha_0 + \beta_0(Y) \quad (7.1)$$

Dividing through by the population level ($N$) gives

$$\frac{S}{N} = -\alpha_1 + \beta_1 \left( \frac{Y}{N} \right) \quad (7.2)$$

where $S/N$ is per capita saving

and $Y/N$ is per capita income

¹ It is nonsense to suppose that the 'long-run' savings function is linear, emanating from the origin, as some textbooks would have us believe. Britain was not saving 20 per cent of its gross national product in the Stone Age, and Japan was not saving 40 per cent of its national income forty years ago. The savings ratio rises with the level of development and per capita income through time, levelling off in maturity, as the empirical evidence to follow shows.