Franco Modigliani and the Life-Cycle Hypothesis:

F. Modigliani and his collaborators Albert Ando and Richard Brumberg wanted to solve the consumption puzzle — that is, to explain the opportunity conflicting pieces of evidence that came to light when Keynes's consumption function was tested. According to Fisher's model, consumption depends on a person's lifetime income.

Modigliani emphasized that X varies systematically over people's lives and that saving allows consumers to move Y from those times in life when Y is high to those times when it is low. This interpretation of consumer behaviour formed the basis for his life-cycle hypothesis.

The Hypothesis:

One reason that income varies over a person's life is retirement at about 60, and they expect their incomes to fall when they retire. Yet they do not want a large drop in their standard of living, as measured by consumption. They can maintain consumption provided they save during their working life. Let us see what this motive for saving implies for the consumption function.

Consider a consumer who expects to live another T years, has wealth W, and expects to earn income Y until he retires R years from now. What level of C will the consumer choose if he wishes to maintain a smooth level of C over his life?

The consumer's lifetime resources are composed of initial wealth W and lifetime earnings of R.Y. The consumer can divide up his lifetime resources among his T remaining years of life. We assume that he wishes to achieve the smoothest possible path of C over his lifetime. Thus, he divides this total of W + RY equally among T years and consumes each year: $C = (W + RY)/T$ and his consumption function becomes: $C = (1/T) W + (R/T) Y$ For example, if T = 60 and R = 30, so his consumption function is $C = 0.017W + 0.5Y$ Thus, consumption depends on both wealth and income. An extra pound of income per year raises C by 50p per year and extra pound of wealth raises C by 17p per year.

If every individual plans C like this, then the aggregate consumption function is much the same as the individual one. It means, aggregate consumption function depends on both wealth and income. That is, the economy's consumption function is: $C = \alpha W + \beta Y$, when α = MPC out of wealth and β = mpc out of income.

The Life-Cycle Consumption Function:

The life-cycle model says that, consumption depends on wealth as well as Y. In other words, the intercept of the C Function depends on wealth as Fig. 12.13 shows. This model of consumer behaviour can solve the consumption puzzle. The life-cycle consumption function implies that the average propensity to consume is: $C/Y = \alpha (W/Y) + \beta$
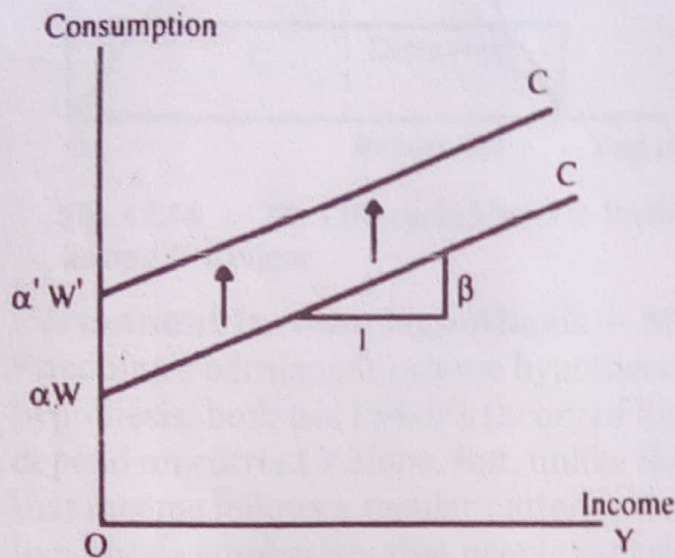

Fig. 12.13   The Life-cycle Consumption Function

We should find that high Y implies a low average propensity to consume (APC) when looking over short periods of time. But, over the long period, wealth and income grow together, which implies a constant ratio W/Y and, thus, a constant APC. Fig. 12.13 shows, for any given level of wealth, the life-cycle Consumption function looks like the one Keynes suggested.

This function holds only in the short-run when wealth is constant. In the long-run, as wealth increases, the Consumption function shifts upward as in Fig. 12.13. This upward shift prevents the-APC from falling as income increases. Thus, Modigliani reconciled the apparently conflicting studies of the Consumption function.

The life-cycle model makes many other predictions as well. It implies that saving varies over a person's life in a predictable way. If the consumer smooth's C over his life, he will save and accumulate wealth during his working years and then dis-save and run down his wealth during retirement as Fig. 12.14 shows.
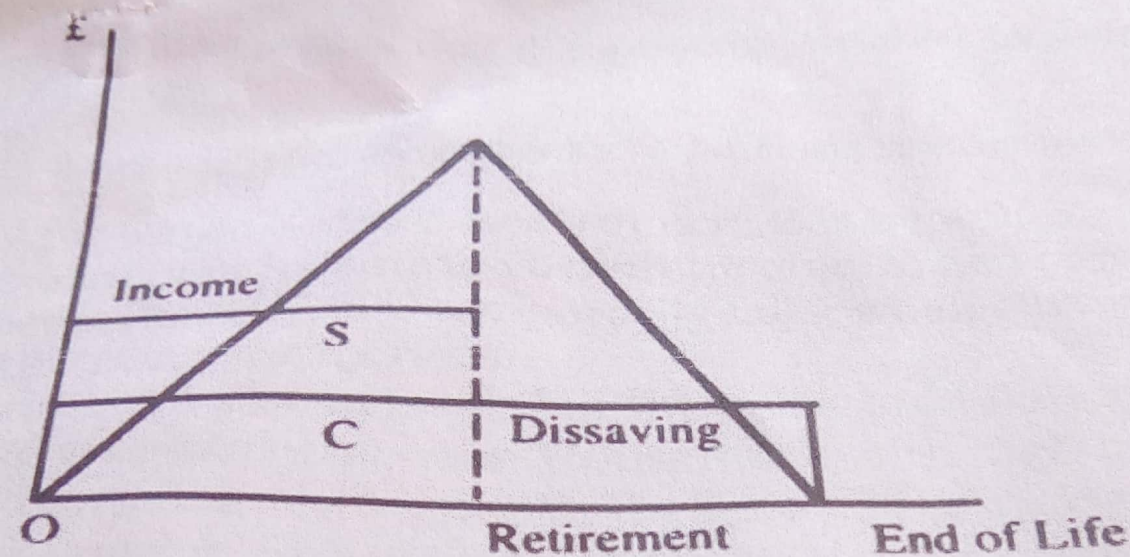
Fig. 12.14 The Life-cycle Model to Predict Saving Behaviour

manent Income Hypothesis — M. Friedman:

dman's permanent income hypothesis complements Mo
thesis: both use Fisher's theory of the consumer to argu
nd on current Y alone. But, unlike the life-cycle hypoth
ncome follows a regular pattern over a person's lifeti
hesis emphasizes that people experiences random a
ncome from year to year.

ypothesis:

an suggested that, current income Y as the sum
ent income Y^P and transitory income Y^T. That
is that income which persists into the future.
es not persist. Alternatively, permanent in
andom deviation from that average.
t to Friedman. consumption should prim