



JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

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Faculty of Education and Methodology

Faculty Name- JV'n Dr. Md Meraj Alam

Program- BA (Hons) Economics 2nd Semester

Course – Macroeconomics II

Digital session name – Kaldor's Theory of Business Cycles: Part-1

Kaldor's Model of the Trade Cycle

Kaldor's theory of the trade cycle is a comparatively simple and neat theory built directly on Keynes' saving-investment analysis. Keynes theory of the determination of the level of income did not take into consideration the theory of the fluctuations of income. It is important to note that Kaldor's theory of the trade cycle emerges essentially from the substitution of his the nonlinear saving and investment functions for the linear functions used by Keynes in his income model.

Assumptions

In his trade cycle theory Kaldor does not make use of the acceleration principle in a rigid form. In his model, investment is related directly to the level of income and inversely to the stock of capital. This approach breaks the unrealistic, inflexible dependence of investment to changes in output that is implied by the rigid acceleration principle. Kaldor introduces a new variable that plays a major role in a cyclical change in saving and investment and this variable is the capital stock (K) in the in economy.

Saving is a direct function of the capital stock, for any level of income, the greater the capital stock, the larger is the amount of saving. As against this, investment is an inverse function of the

capital stock. It means that for any given level of income, the greater the capital stock, the smaller is the amount of investment.

In Kaldor's theory we trace out how the changes in capital stock alter the equilibrium situations. In other words, instead of the investment function incorporating the strict acceleration principle $I_t = I_a + W (Y_{t-1} - Y_{t-2})$, this approach gives us an investment function. Which is

$$I_t = I_a + hY_{t-1} - jK_t$$

where K is the stock of capital at the beginning of the period t and h and j are constants. The above equation simply means that if income (Y) increases while the capital stock (K) remains constant investment will rise to increase the capital stock. If, on the other hand the capital stock increases while income remains constant investment will fall as the desired stock of capital has been reached.

The main differences between Hicks' model of the trade cycle and Kaldor's model is that the former uses the acceleration principle in its rigid form; while the latter uses it in a way as to avoid some of the shortcomings of the rigid acceleration principle.

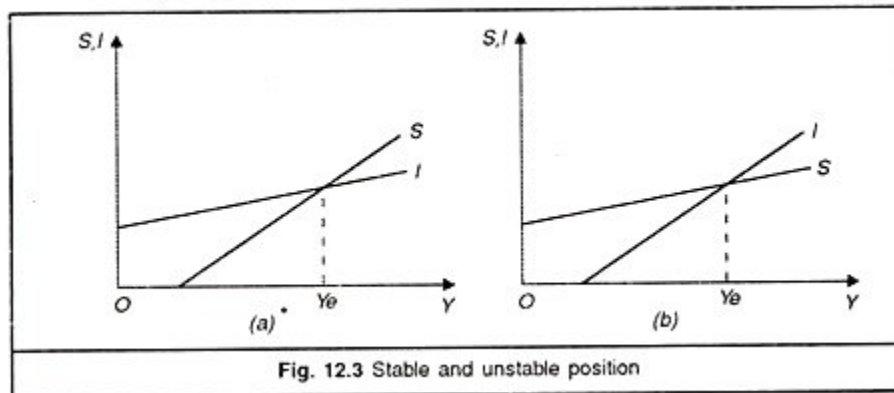
2. Kaldor's model assumes that the process of change in the business activity is related to the differences between ex-ante saving and investment in the economy. If $S > 1$, then savings are more than investments and there is a decline in consumer spending which through multiplier will bring a fall in income and business activity. If, on the opposite, $1 > S$, then the income rises due to increased spending. Thus, a discrepancy between ex-ante saving and investment induces a chain of reactions till the equilibrium level of income is restored. Kaldor, thus, makes both S and 1 depend upon Income (Y) and stock of capital (K). Specifically,

$$I = I(Y, K)$$

$$S = S(Y, K)$$

Both S and I are usually related to the level of income except in case of deep depression or extreme inflation, so that $\Delta I/\Delta Y$ and $\Delta S/\Delta Y$ are normally greater than zero. The behaviour S and I in relation to the stock of capital, however shows that saving is related positively with the accumulation of the stock of capital, while investment generally bears an inverse relationship with the stock of capital. Kaldor proposes that the fluctuations in the economic system can be

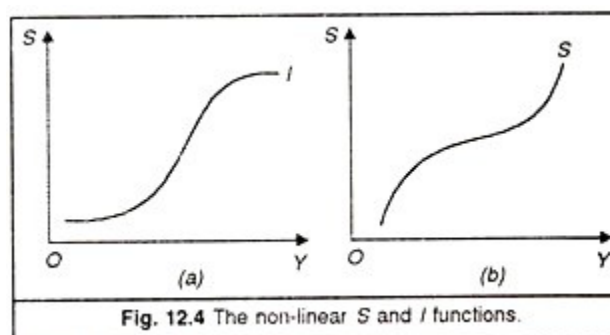
traced to the movements of the variables I , S , Y and K . If we suppose that S and I functions are linear then, there are two possibilities about fluctuations in income.



Source: Internet

The first possibility is shown in Fig. 12.3(a) where the equilibrium is Y_e income level. When we assume linear S and I functions, there is a single equilibrium position and any disturbance that results in a shift in either function or both would tend to be followed by a movement to a new equilibrium position. This prevailing model shows more stability than appears to be in the real world.

In part (b) there is again a single equilibrium position but it is unstable one. Any disturbance producing a movement above Y means that $I > S$ and that the income level may rise without limit. Any disturbance leading to a movement below $Y > Y_e$ a movement below $Y > Y_e$ means $S > I$ and that the income level would collapse to zero. Part B gives us greater instability than the real world shows.



Source: Internet

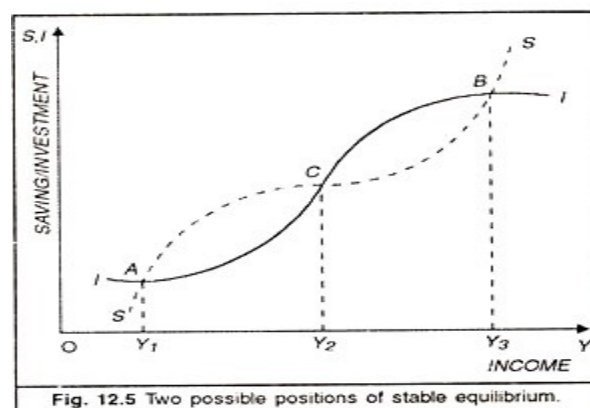
From this, Kaldor, therefore, concludes that S and I functions cannot both be linear, at least not over the full range of incomes during the business cycle. His opinion was that non-linear S and I functions appear to conform more closely to the behaviour of saving and investment in the course of a business cycle.

Kaldor's Proposed Non-linear S and I Functions:

Refer to Figure 12.4. In part (a) the curve is almost flat for both relatively high and low income levels. This implies that the marginal propensity to invest, MPI is almost zero. The MPI is expected to be about zero at low income levels because there is already large excess capacity and rise in income at low rate will not induce any investment spending. Similarly, in case of high level of income, MPI will be small because of rising costs of construction and borrowing.

This will discourage entrepreneurs to invest more. In part (b) of the figure at relatively high and low income levels, the MPS , marginal propensity to save, is relatively large compared to its magnitude at normal income levels. During recession when incomes fall to low levels, people cut saving to maintain their previous standards of living and at high income levels, people not only save a large amount but also a larger proportion of their income. Therefore, the MPS is high both in a recession and a boom.

This shifts the distribution of income in favour of profits and away from wages because the MPS of profit seekers is higher than that of the wage earners. This is reflected in a steep rise of the S function at high income levels.



Source: Internet

Course Outcome: The goal of this paper will be to expose the students to the basic principles of macroeconomics. The emphasis will be on thinking like an economist and course will illustrate how economic concepts can be applied to analyse real-life situations. In this course, the students are introduced to money and interest, theories of inflation, rate of interest, trade cycle and growth models.