

Paradox Of Thrift-an Analysis Based On Hoarding

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Abstract - Macroeconomics deals with the household and the firm through the automatic mechanism of aggregate demand and aggregate supply until and unless demand deadlock or supply side rigidities affect. In these cases of demand deadlocks and supply side rigidities, intervention seems to be a general solution. However, that does not mean that it is a complete failure of the automatic mechanism., because, even in these demand deadlock and supply side rigidity situations, the automatic mechanism may revive through the asset market operations. Hoarding plays a pivotal role in determining the direction of expansion of aggregate demand.

keywords - Hoarding, Full-employment, Keynes Effect, Pigou Effect, Liquidity Trap.

INTRODUCTION

General Macroeconomic Theory is applicable to the developed capitalist economy and it is concerned with the determination of the broad aggregates in the economy, in particular, the national output, unemployment, inflation and the Balance of Payments position and their interaction mutually to determine macroeconomic stabilization.

Market oriented Neo-classical Economics has the school of thought that markets work without barriers, having necessary adjustments through the 'invisible hands' or the automatic interactive forces of Aggregate Demand and Aggregate Supply to stabilize the economy towards equilibrium automatically.

In the 'General Theory of Employment, Interest and Money' (1936), John Maynard Keynes stated that once an economy has moved into a situation of high unemployment or underemployment, the automatic price mechanism would not work to adjust the economy back to the full-employment level. In this situation, intervention of the 'necessary evil'-'government' is inevitable through the expansionary fiscal policy to raise the level of aggregate demand.

According to many early Keynesians, 'Depression' is a chronic state for a capitalist, developed, industrialized economy (generally in full-employment) that exhibit too low a level of aggregate demand (at less than full employment level) to employ all the workforce. Thus, according to Keynes, unlike classical or neoclassical schools of thought, a stable underemployment equilibrium is possible and automatic price mechanism may fail.

The main characteristic feature of Keynesian Demand Management has been adaptation of fiscal policy and disregard for the effectiveness of automatic monetary mechanism.

In the following Section-I, we are going to conceptualise 'Hoarding'. In Section-II, we are going to apply the concept of 'Hoarding' in Simple Keynesian Framework. In Section-III, we are applying the same concept in case of IS-LM framework. In Section-IV, Aggregate Supply schedule is derived. In Section-V, Hoarding Analysis will be applied for the Complete Keynesian Framework. Also here we are going to compare between the Complete Classical Framework and Complete Keynesian Framework.

Obvious attention will be towards the fact that whether the alternative analysis of 'Hoarding' explains the Keynesian Framework in a greater detail as an alternative to the existing Keynesian macroeconomic literature.

SECTION-I: HOARDING

Hoarding refers to the 'psychological behavior' of individuals, through which people keep their money at home, sacrificing transactions of goods and services, and sacrificing the 'bank security of money', under uncertainties of depression in an economy that arises with the insolvency of the banking system/ capital market that forces the banking system/capital market to pay almost 'nothing' (zero(0)) as the 'rate of interest' (r) to the household.

The more is the increase in the level of income, the more is the amount of 'hoarding' by the people under depression because of 'non-reliability' upon the volatile banking system/ capital market.

Now, moving theoretically, disposable income can be disposed upon the two parts, especially, during depression-

(i) Hoarding (H) and (ii) Dishoarding (DH).

So,

$$Y - \bar{T} = H + DH \dots\dots\dots (1)$$

Again it is to be stated that out of one unit increment in disposable income, increment in hoarding (H) and increment in dishoarding (DH) both must be less than unity (1).

So, we get –

$$Y - \bar{T} = H + DH$$

$$\Rightarrow 1 = \frac{H}{Y - \bar{T}} + \frac{DH}{Y - \bar{T}}$$

$$\Rightarrow 1 = APH + APDH \dots \dots \dots (2) \text{ here } \rightarrow 0 \leq APH \leq 1; \text{ and } \rightarrow 0 \leq APDH \leq 1$$

Also,

$$1 = \frac{dH}{d(Y - \bar{T})} + \frac{dDH}{d(Y - \bar{T})} \dots \dots \dots (3) \text{ here } \rightarrow 0 \leq MPH \leq 1; \text{ and } \rightarrow 0 \leq MPDH \leq 1$$

Following Figure-I shows this.

SECTION II: SIMPLE KEYNESIAN FRAMEWORK

In an economy, we observe the NATIONAL INCOME IDENTITY (NIA) or GROSS DOMESTIC PRODUCT IDENTITY (NIA) as the sum of expenditures being identical to the sum of dispositions.

Here, taking into account the Hoarding (H) and Dishoarding (DH), we can alternatively express the general NIA Identity in the following form –

$$DH + I + \bar{G} + (X - M) \equiv H + DH + \bar{T} + R_f \dots \dots \dots (4)$$

In a closed economy, the net exports (X-M) as well as the Net Transfer Income (R_f) are held equal to zero (0).

So,

$$DH + I + \bar{G} \equiv H + DH + \bar{T}$$

$$\Rightarrow I + \bar{G} \equiv H + \bar{T} \dots \dots \dots (5)$$

'I' can be expressed as the sum of autonomous investment (\bar{I}) and unintended inventory accumulation (Δinv).

So, we can write –

$$\bar{I} + \Delta inv + \bar{G} = H + \bar{T} \dots \dots \dots (6)$$

Now, when $\Delta inv = 0$ happens, then –

$$\bar{I} + \bar{G} = H + \bar{T} \dots \dots \dots (7)$$

It is well known from the macroeconomic texts that –

$$\bar{I} + \bar{G} = H(Y - \bar{T}) + \bar{T} \dots \dots \dots (8) \text{ with } \rightarrow 0 \leq \frac{dH}{d(Y - \bar{T})} = MPH \leq 1$$

($\bar{I} + \bar{G}$) is called the aggregate investment and ($H(Y - \bar{T}) + \bar{T}$) is called 'aggregate hoarding including taxation effect'.

When 'aggregate hoarding including taxation effect' increases relative to the 'aggregate investment demand', then there occurs unintended inventory accumulation ($\Delta inv > 0$) in terms of excess capacity or unutilized resources. So rational producers reduce production as well as employment to make the equation (8) an equilibrium condition.

Similarly, when 'aggregate hoarding including taxation effect' decreases relative to the 'aggregate investment demand', then there occurs unintended inventory decumulation ($\Delta inv < 0$) in terms of excess capacity or unutilized resources. So rational producers increase production as well as employment to make the equation (8) an equilibrium condition.

So, the equilibrium is unique, it exists and it is stable. This can be observed from Figure-II.

SIMPLE KEYNESIAN MULTIPLIERS

We know that the aggregate demand relationship can be expressed as –

$$Y = DH(Y - \bar{T}) + \bar{I} + \bar{G} \dots \dots \dots (9)$$

Totally differentiating this equation, we get –

$$dY = DH'dY - DH'd\bar{T} + d\bar{I} + d\bar{G} \dots \dots \dots (10) \rightarrow 0 \leq \frac{dDH}{d(Y - \bar{T})} \leq 1$$

$$\Rightarrow (1 - DH')dY = -DH'd\bar{T} + d\bar{I} + d\bar{G} \dots \dots \dots (11)$$

Here the autonomous expenditure multiplier is –

$$(1 - DH')dY = -DH'd\bar{T} + (d\bar{I} + d\bar{G}) \dots \dots \dots (11)$$

$$(1 - DH')dY = -DH'd\bar{T} + d\bar{A} \dots \dots \dots (12)$$

$$\frac{dY}{d\bar{A}} = \frac{1}{(1 - DH')} = \frac{1}{H'} > 1 \rightarrow \therefore 0 \leq H' \leq 1$$

Given the change in the autonomous expenditure $d\bar{A}$; increase in Marginal Propensity to Hoard (H') reduces the multiplier effect through 'squeezing out' the money from the circular flow of product and income. This is nothing but 'Paradox of Thrift'.

PARADOX OF THRIFT

Increase in 'willingness to hoard' always arises due to insolvency of the banking system. So, in depression, owing to continuous fall in the price level and the rate of interest, banking system fails to provide adequate returns/ incentives in terms of the rate of interest (r) to dishoardings. For instance, if the dishoardings is termed as 'Savings' or 'Future Consumption', then, getting almost no return or zero (return) from the banking system, household should become almost indifferent between keeping the money in the bank (i.e. 'Saving' or 'Future Consumption' in lieu of rate of interest (r) as defined in the literature) and hoarding the money in their pocket. However, risk aversion and low return are the pivotal factors that may guide individuals towards having their money in their own pocket rather than in the bank because of the risks involved with the insolvency and uncertainty of the banking system, especially under depression. As the situation gets worse, the 'Marginal Propensity to Hoard' (H') may increase. This leads to the hoarding schedule upwards. This can be observed from Figure-III.

Again, multiplier effect corresponding to the increase in 'Marginal Propensity to Hoard' ($0 \leq H' \leq 1$) is explained through the Figure-VI. The explanations of 'Paradox of Thrift' through the Circular Flow of Product and Income has been explained in Figure-IV and Figure-V respectively.

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