UNIT III

Consumption Function

The consumption function is an economic formula that directly connects total consumption and gross national income. The function introduced by British economist John Maynard Keynes indicates the relationship between income and expenditure and the proportion of income spent on goods.

Explanation

- It indicates that consumer spending is determined by the amount of income and the rate of increase or decrease of income. This concept, in the long run, is not stable because the income changes and consumption pattern changes.
- Here this function to be assumed as stable and expenditures determined the level of income. For valid concept long run it has to stable to reach equilibrium.

Consumption Function Formula

Below is the equation of consumption function.

$C = c + bY$

- C – Total Consumption
- c – Autonomous Consumption (minimum consumption for survival when income is zero). Autonomous consumption is not influenced by income – Here we have to understand that consumption can never be zero and if income becomes zero there is minimum consumption which never is nullified. Such consumption is called autonomous consumption. If income is low there is a minimum level of expenditure which is higher than the income. In such a case, consumption has to be maintained irrespective of the level of income. The minimum level of consumption is known as autonomous consumption.
- Induced consumption (bY) (influenced by income) – bY; b is the marginal propensity to consume (which means consumption level

increased for every rupee increase in the income). Induced consumption influenced by income. Y clearly indicates i.e income.

- Break-even Point – When consumption expenditure reaches the income if there is no concept of saving it is called the break-even point stage.

Keynesian Psychological Law of Consumption

The concept of consumption function stems from the basic psychological law of consumption which states that generally, people tend to spend more on consumption when there is an increase in their income level. However, the rise in the spending behavior is not to the same extent as the rise in income because a part of the income is saved as well.

The psychological law of consumption shows the relationship between income and consumption pattern that exists among the household sectors in an economy. As stated by Keynes, "The psychology of the community is such that when the aggregate real income increases, aggregate consumption also increases, but not as much as income."

The law is based on three interrelated propositions:

When aggregate income increases, consumption expenditure also increases, but less proportionately. This is because, as a person's income increases, most of their wants are gradually satisfied. So, less is spent on consumption after a subsequent level of increment in their income.

It follows that the increment in the level of income is always divided into spending and saving.

An increase in income thus, leads to an increase in consumption as well as savings. Normally, people would spend more and save more when income increases.

Assumptions

Keynes' law is limited by the assumptions explained below:

A. Invariability of Psychological and Institutional Factors

The institutional and psychological factors of people remain constant that leads to the stability of propensity to consume. Spending habit, income distribution, inflation, population, etc. remain the same in the long run.

B. Laissez-faire Economic Policy

A free capitalist economy is assumed to exist where there are no government interventions even in case of increase in the level of income. The demand and supply of goods and services are determined by the market.

C. Normal Economic Conditions

Normal conditions are prevalent within the economy. This means that any unusual or extraordinary circumstances such as inflation, war, revolution, etc. have no chances of occurrence.

The law is based on normal human behavior, where, the additional income earned is not just spent on consumption, but a portion of it is saved as well. This means,

$\Delta Y = \Delta C + \Delta S$.

This phenomena can be explained with the help of the following table and diagram:

Income (Y)	Consumption (C)	Saving (S)
0	20	-20
50	60	-10
100	100	0
150	140	10
200	180	20

Keynesian Psychological Law of Consumption

The diagram above shows income at OYE where no saving has yet been made. With the gradual increase in income, aggregate saving also increases after OYE level of income. This shows that additional income earned is divided into consumption expenditure and saving.

Implications of the Psychological Law of Consumption

The major implications of the law is it explains the phenomena that marginal propensity to consume is less than unity i.e. MPC < 1.

MPC refers to the additional consumption per unit of additional income, represented as

$MPC=\Delta C/\Delta Y$

We have, Y= C+ S

Where, Y= Income; C= Consumption; S= Saving

Let increase in income be ΔY and the corresponding increment in consumption and saving be ΔC and ΔS.

Cite this article as: Shraddha Bajracharya, "Keynesian Psychological Law of Consumption," in Businesstopia, January 12, 2018, https://www.businesstopia.net/economics/macro/keynesian-psychological-law-consumption.

Increase in income

Therefore, MPC is less than 1.

The analysis of Keynes' law shows some major implications of the psychological law of propensity to consume, that include:

A. Highlights the importance of investment in an economy

One of the most important implications of the law is that explains the role of investment when the community of people in an economy spends less than the increment in their salary. As a result of this, a gap exists between aggregate income and aggregate consumption.

In order to remove the widening gap, investment should made in the economy, assuming the consumption function is stable in the short run. Thus, Keynes stresses in the importance of investment for determining the level of income and employment in the economy.

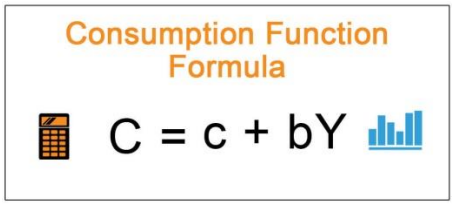
B. Explains the declining phenomena of MPC

When consumption level remains unchanged even with an increment in the income level, the marginal efficiency of capital may decline. This can be avoided if the level of spending is equal to the level of income rise.

Since investment opportunities are fluctuate with the changing rate of interest, the stable consumption function tends to lower the marginal efficiency of capital and investment in the short run.

C. Explanation of the business cycle

MPC being less than unity enables us to understand the fluctuations that occur in the business cycle. When people start saving more than they spend, the economy is at boom, and this leads to fall in the income level. When income falls, and people do not curtail their consumption to the level of decrement in the level of income, the economy turns towards depression.



APC AND MPC IN CONSUMPTION FUNCTION:

The upcoming discussion will update you about the Relationship between APC and MPC in Consumption Function.

Consumption function denotes the functional relation between consumption and income.

Whereas the MPC refers to the marginal increase in consumption (ΔC) as a result of marginal increase in income (ΔY), APC means the ratio of total consumption to total income (C/Y):

1. We have seen above that in case of a curved consumption function, as income increase, the MPC as well as the APC both decline, but the decline in

the MPC is more than the decline in MPC. In other words, both the propensities decline with an increase in income, though the decline in one (MPC) is greater than the decline in the other (APC).

2. When MPC is constant, the consumption function is linear i.e., straight line. The APC will be constant only if the consumption function passes through the origin. However, if it does not pass through the origin, APC will not be constant.

3. Sometimes the MPC and APC may be equal. It is the case when MPC is constant, that is when the consumption function is linear. Suppose income rises, and of this extra income only 80% is spent on consumption; in that case MPC will be 80% or 0.8. Since the MPC is to remain constant and if the APC also happens to be 0.8, both MPC and APC will be equal.

4.MPC is higher is case of poor communities and lower in case of rich communities. The reason is that in case of rich communities most of their basic needs have already been fulfilled and all the additional increments in income are saved (leading to higher MPS), whereas in poor communities most of their primary needs remain unfulfilled, so that additional increase in income lead to increase their consumption. That is why in backward countries like India, Pakistan, Burma and Indonesia, MPC is higher while in advanced countries like the U.S.A. and U.K. it is lower. (Sometimes MPC and APC in advanced countries assume constant value as pointed out by Prof. Hansen and broadly speaking become the cause of flattening of the C curve causing deficiency of effective demand and creating poverty amidst plenty).

FACTORS DETERMINING CONSUMPTION FUNCTIONS | STEPS TO INCREASE CONSUMPTION:

The consumption function or the propensity to consume is not static and there are various factors influencing it for a change. Though in the short period, the propensity to consume will not change — as the spending habit of the society docs not change quickly — in a dynamic society, factors will be always operating to make the condition unstable.

We shall discuss some of the important factors that influence the consumption function. Since saving is a complement of consumption, factors influencing consumption will be automatically affecting savings as well.

The causes governing consumption function can be classified into:

Subjective factors and
Objective factors.
The former is called psychological factors by Keynes who lists about eight motives which lead individual to refrain from spending out of their incomes.

Subjective Factors governing consumption function
Consumption function - Subjective Factors
Consumption function – Subjective Factors

1. To build up a reserve against unforeseen contingencies.

2. To provide for an anticipated future relation between the income and the needs of the individual or his family different from that which exist at present, as for example, in relation to old age, family education, or maintenance of dependents.

3. To enjoy interest and appreciation i.e., because a large real consumption at a later date is preferred to a smaller immediate consumption.

4. To enjoy a gradually increasing expenditure since it gratifies a common instinct to look forward to a gradually improving standard of life rather than the contrary, even though the capacity for enjoyment may be diminishing.

5. To enjoy a sense of independence and the power to do things, though without a clear idea or definite intention of specific action.

6. To secure a masse de manoeuvre (Working Mass) to carry out speculative or business projects.

7. To bequeath a fortune.

8. To satisfy pure miserliness, i.e., unreasonable, but insistent inhibitions against acts of expenditure as such.

The above subjective motives are summed up by Keynes as motives of Precaution, Foresight, Calculation, Improvement, Independence, Enterprise, Pride and Avarice. Keynes lists out the motives for consumption also. They are Enjoyment, Shortsightedness, Generosity, Miscalculation, Ostentation and Extravagance.

In addition to savings accumulated by individuals due to various motives enumerated already, savings are accumulated by Central, State and Local governments, institutions and business firms. The motives for these savings are Enterprise, Liquidity, Improvement and Financial Prudence.

According to Keynes, the subjective or psychological factors do not change in the short run and hence consumption function remain stable in the short period.

Objective Factors influencing the consumption function
Consumption function - Objective Factors
Consumption function – Objective Factors

The list of factors under this category affecting consumption is a big one and we shall take up for discussion only very important factors.

1. Money Income
Money income of the individual is the dominant factor in determining his consumption. Income, consumption and savings of an individual are related to each other.

2. Real Income
Keynes points out that the consumption is influenced by real income than by money income. A change in the price level will change the value of money and the purchasing power. Fluctuation in prices will affect real income and also the propensity to consume. Phenomenal rise in the price level will reduce the real income and so there will be a fall in the propensity to consume.

3. Distribution of Income

The most important factor determining consumption function is the manner in which the income or wealth of the community is distributed. Normally the average and marginal propensities to consume will be higher for poor people than the rich; the reason being that the former will be living without many essential and basic needs of life and additional income will be fully made use of in consumption to satisfy basic wants.

On the other hand, the rich may not be having many unsatisfied wants and hence their propensity to save will be higher. Statistical studies have proved that a large portion of investment has come only from the savings of the rich. Consumption will be low when there are gross inequalities of income in the country. Reduction of inequalities will increase the propensity to consume in the economy.

4. Fiscal Policy

The fiscal policy of the government relating to taxation, expenditure and public debt will appreciably affect the propensity to consume. Heavy indirect taxes will leave little money with the people of low-income groups and their consumption will get depressed.

A reduction in taxes will leave more disposable income which can be used for consumption. Highly progressive system of taxation will reduce inequalities which will in turn increase the propensity to consume in the economy.

5. Financial policies of Corporations

If joint-stock companies and corporations adopt a 'fat dividend' policy, the disposable income of the shareholders will be high and consequently the propensity to consume will also go up.

6. Expectations of future changes

If the people in the economy expect sudden changes in the future regarding their income, price-level or shortage of commodities or bumper harvest, the consumption function will change.

During war, shortage of commodities will be expected and the consumers will rush to buy far in excess of their needs. If they anticipate bumper crop or massive import which would reduce the prices in the near future, consumption would be postponed to a future date and hence propensity to consume will become low.

7. Windfall gains and huge losses

Sudden windfall income or gains will increase the consumption function, while huge losses will reduce the consumption. In the late twenties, the windfall gains in the stock market of U.S.A., increased the consumption function of the wealthier classes.

8. Liquid Assets

When people have liquid assets, they will be inclined to spend more and the consumption level will be high. During war periods, increased liquidity due to war financing will lead to increased consumption.

9. Rate of interest

Views differ regarding the role of interest in consumption function. The classical view is that if the rate of interest goes up, people will consume less and save more to take advantage of the higher interest rate. When interest rate falls, they will consume more and save less. Consumption varies inversely with the rate of interest.

According to Keynes, the effect of rate of interest on consumption and savings is complex and uncertain.

The short period influence of the interest rate on individual spending out of a given income is secondary and relatively unimportant, except, perhaps where usually large changes are in question.

Only in the long period, changes in the rate of interest influence social habits of the people which in turn affect consumption. Further changes in the rate of interest affect the purchase of durable consumption goods on installment basis. A rise in the rate of interest makes the installment purchase more expensive and the customers arc discouraged to buy goods. A fall in the rate of interest will increase consumption of goods purchased on installment system.

10. Consumer durable

Consumption expenditure depends on the consumer durable goods available and demanded in the country. If the country had been enjoying prosperity for a long period, the people would be possessing many durable goods with them

like motor car, sewing machine, fridge and TV which would serve them for a long time. Hence the people may not be spending on such items, but would save more out of their disposable incomes.

11. Demographic factors

The consumption expenditure differs from family depending on demographic factors, though the income may happen to be the same for all families. 'Large-sized' families will spend more than 'small-sized' families. Occupation, residence, composition of the family will determine expenditure.

Normally urban-bred families will spend more than rural families. Farmers and small businessmen will spend less than professional people. Families having children attending colleges will be spending more. In short, the propensity to consume depends on tastes, preferences, standard of living and aptitude and attitude of the people.)

12. Duesenberry Hypothesis

Prof. Duessenberry has made two important observations regarding the factors affecting the consumption of an individual:

1. The consumption expenditure of the people not only depends on the current level of income, but also on the standard of living in the past. If income falls, no doubt, the expenditure will also fall, but not to the same extent, as the people will find it difficult to adjust their expenditure to changed conditions.

2. Another important factor is what may be called the Demonstration Effect. An individual's consumption depends not only on the absolute amount of his income, but also on its size relative to incomes of others.

For example, the low-income group will try to imitate the consumption standard of high-income groups. They will purchase fashion goods and costly commodities used by rich people. But, the moment low-income groups start using these goods consumed by higher-ups, the latter will avoid consumption of these commodities and go in search of still better or valuable commodities. This is what is called the Demonstration Effect which will have mutual reactions resulting in increased consumption function.

Steps to increase consumption function

The fundamental concept of Keynesian employment theory is the 'Effective Demand' which depends on the consumption function of the economy. Though consumption remains fairly stable in the short period, many factors can be used to step the consumption function in the long run to achieve full employment.

Since consumption forms the basis of employment creation, it is the duty of government to aim at the social control of investment and step up investment by adopting suitable policies, The following steps will increase the marginal propensity to consume.

1. Redistribution of Income

We have already studied that distribution of income affects the propensity to consume. The fiscal policy of the government should aim at redistribution of income by means of transfer of resources from the rich to the poor so that the income of the poorer classes would go up. Effective measures in taxation, progressive methods to tax the rich without affecting capital formation would ensure better redistribution of income and wealth in the community. With better redistribution of income the propensity to consume would increase in the economy.

2. Social Security Schemes

A well-planned system of social security measures would increase the consumption function in the economy. Unemployment insurance, old-age pension, health insurance, etc. will help in increasing the productive capacity of the economy and also the consumption function. These schemes will increase the purchasing power of the people and the paradox of thrift common to all capitalist economies would vanish. These measures would help the economy to a great deal during a depressionary period.

3. Wage Policy

Wage policy is a complex problem in the economy and it should aim at increasing the consumption function without any adverse effects. A cut in wages is not a suitable practical policy and a rise in wages will increase consumption function. But a mere rise in wages without increasing the productivity of workers would lead to inflationary conditions and ultimately to unemployment. The wage policy and productive policy should go hand in hand to enable the economy to consume more and grow more.

4. Urbanization

Normally, the propensity to consume will be high in urban and industrialized centres rather than rural areas. A policy of urbanization and starting of urban colonies would enhance the consumption function.

5. Easy credit and sales promotion

Easy credit facilities and installment schemes will enable the consumers to enhance their consumption. Similarly, sales promotion techniques, such as advertisement through press, screen, radio and TV will increase the demand for many durable commodities and the consumption function of the economy would go up.

DYNAMIC AND STATIC CONCEPT OF THE MULTIPLIER IN AN ECONOMY:

Criticism has been levied on Keynes' theory of investment multiplier on the ground that it is a static formulation and it has no connection with the dynamic process of income generation.

It does not tell us what happens in between the initial increase in investment and the final increase in income.

We have no means to know how and in what stages or time intervals the final increase in the total income is attained. Keynesian multiplier shows the process of income expansion from one point of equilibrium and that too under static assumptions. No idea is given of the actual sequence of events and no time- lags are involved.

The whole process of income propagation is automatic, unhampered by time or other factors. For example, it may be remembered that multiplier does not work only when changes in the expenditures occur as a result of private and public investment, but also due to increases in consumption expenditures (though Keynes assumed them to be stable in the short-run).

Should the investment expenditures remain fixed over time a decline in savings or a reduction in taxes may lead to increased consumption expenditures in the long-run giving rise to multiplier effects. Post-Keynesian writers have pointed out that the magnitude of the multiplier is bound to be affected by time lags, i.e., by the fact that the particular doses of investments will take time to exert their full influence in raising income.

Meanwhile, it is just possible that fresh investments may have taken place and may themselves cause multiplier effects. If there are time lags, the final equilibrium position will take longer to reach, the income rises more slowly than it would do in the absence of lag. Keynes seems to have thought that the effects of such lags would be unimportant. But the real multiplier, should take into consideration the dynamic forces working in the economy.

According to the critics, it is better to replace the Keynesian static multiplier by the dynamic multiplier, which takes account of changing events. Despite these observations, it is useful to remember that Keynes discussed, though briefly, three different concepts of the multiplier: the logical theory of the multiplier assuming no time lag, the period analysis concept of multiplier based on the assumption of time lags and 'comparative statics' timeless concept of multiplier in which the transition process or the path is skipped over completely.

The discussion still continues. On the one hand, there were and still are, some points which require clarification, on the other hand, the highly simplified models of Johannsen, Kahn and Keynes require modifications and extension in certain directions. We should like to take up two of the many directions with which current research is concerned.

These are as follows:

The first direction relates to the time it takes for the multiplier process to work itself out. We speak of the multiplier effects in the first, second, third etc. period (specially in case of dynamic multiplier) and note that after a small number of periods the size of the effects is very near the final equilibrium value. Thus, we still have to know how long these periods are, whether they last a day, a week, a month or a year.
Johannsen felt that the interval between cause and effect was not very long; rather cause and effect proceed together hand in hand. It is possible and even probable that his conjecture is correct. Yet to get a correct answer, lot of empirical work and research is required. Attempts to answer these questions were made by F. Machlup' and more recently by G. Ackley.

Thus, the pure theory of multiplier shows the definitional relation between the 'propensity to consume' and the 'multiplier'. Many problems which

frequently arise under the heading 'multiplier' lie outside the pure theory of the multiplier. Apart from the problems mentioned above, other problems relate to the determination of the amount of net investment associated with a given amount of spending under varying circumstances and the determination of the numerical value of the multiplier.

The MPC of the individual to which Keynes fundamental psychological law refers, is only one of many factors which are casually important for the determination of the MPS (multiplier) of society as a whole. Hence, we need not exaggerate the stability of the multiplier over time.

LIMITATIONS:

1.Excessive Thinking:-Macro economics suffers from the limitations that it always excessively thinks in the terms of aggregates and presumes circumstances to be normal and homogeneous but aggregates may result into heterogeneous character.As Prof.Boulding points:

(a) Six apples+Seven apples=Thirteen apples which constitutes a meaningful aggregate.

(b) Six apples+Seven oranges=Thirteen fruits,which 15eutralized a fairly meaningful aggregates.

© Six apples+Seven shoes constitutes a meaningless aggregates.

2.Difference in individual items:-Sometimes while aggregating the variables,the basic characteristics of the data or the variables is left untouched because there are important diffrences in the items.Sometimes,the features of individual components may not be true to the aggregate so macro suffers from the danger of excessive 15eutralized15on.

3.Unable to 15eutraliz society equally:-An aggregative tendency may not influence the entire sectors of the economy in the same way.For example,a genral rise in price as inflation may not similar effects on different sectors of the economy.

4.Contradictory:-In aggregates,sometime the contradictory individual aspects are 15eutralized as in case of the estimation,prices in agriculture fall,of industrial products rise which have different affects on individual factors but as an aggregate,there may not be any effect at all.Thus,macro aggregate reslts may be misleading.

5.Role of less aggregative analysis:-Aggregates itself suffer from certain serious problems due to statical techniques.The recently introduced computational procedures and programming techniques hane reduced the role of aggregative analysi