

# Consumption function questions and answers



Consumption function is an epoch making contribution to the tools of economic analysis analogous to but even more important than Marshall's discovery of demand function. Discuss

ANS NO:-1

Consumption function can be defined as the relationship between consumption and income.

Consumption =  $f(\text{income})$  or  $C = f(y)$

Consumption expenditure increases with increase in income. But increase consumption is less than increase in income. Consumption does not increase at the same rate as the income does. It is due to psychological behaviour of the people.

" As the income of people rises, their consumption also rises. But the whole increase in income is not changed into consumption. A part of it is saved."

In economics, the Hicks-Marshall laws of derived demand assert that, other things equal, the own-wage elasticity of demand for a category of labour is high under the following conditions:

When the price elasticity of demand for the product being produced is high (scale effect). So when final product demand is elastic, an increase in wages will lead to a large change in the quantity of the final product demanded affecting employment greatly.

When other factors of production can be easily substituted for the category of labour (substitution effect).

When the supply of other factors of production is highly elastic (that is, usage of other factors of production can be increased without substantially increasing their prices) (substitution effect). That is, employers cannot easily replace labour as doing so will lead to a large increase in other factor prices making it useless.

Thus, in consumption function we came to know about consumption expenditure. But in Marshall's discovery we studied about the demand function. So, in economics consumption function is much more better than Marshall's discovery of demand function.

### **QUS NO:-2**

If saving dropped sharply in the economy, what would be likely to happen to investment? Why?

### **ANS NO:-2**

Investment is an addition to the capital stock. It is the thing that really makes our economy go and grow. Income that is not consumed by immediately buying goods and services is saved. The decision to save is linked directly to the decision to invest. If a nation is to devote a larger share of its production to investment, then it must devote a smaller share to consumption, all other things unchanged. And that requires people to save more. If saving falls below investment, it can lead to a growth of aggregate demand and an economic boom. In the long term if saving falls below investment it eventually reduces investment and detracts from future growth. Future growth is made possible by foregoing present consumption to increase investment.

Investment is affected by the interest rate; the negative relationship between investment and the interest rate is illustrated by the investment demand curve. The position of this curve is affected by expectations, the level of economic activity, the stock of capital, the price of capital, the prices of other factors, technology, and public policy.

Because investment is a component of aggregate demand, a change in investment shifts the aggregate demand curve to the right or left. The amount of the shift will equal the initial change in investment times the multiplier.

In an economy that is closed to the outside world, investment can come only from the forgone consumption-the saving-of private individuals, private firms, or government. In an open economy, however, investment can surge at the same time that a nation's saving is low because a country can borrow the resources necessary to invest from neighbouring countries.

### **QUS NO:-3**

Suppose the government announces it will pay half of any new investment undertaken by firms. How this would affect the investment demand curve?

### **ANS NO:-3**

A graphical depiction of the negative relation between investment expenditures and the interest rate, based on the marginal efficiency of investment for different capital investment projects. According to question if government pay half of any new investment may be capital investment then it will lead to increase in the investment demand curve.

If we think of the next 15 years, a very substantial portion of the investment in all regulated industries in India is going to come from the private sector. It would be myopic for the government to have a regulator who is conflicted, which reduces the quantum of investment and drive up user charges. It makes more sense for the government to reorganise itself, shifting into the role of the umpire and away from the role of the player. We must move towards a simple and clean solution: government as an umpire and the private sector as players

Changes in business confidence, the costs of capital and demand lead to shifts in the investment demand curve. For example, an increase in export sales overseas might be an increase in the expected rates of return on capital investment and thus an outward shift of the investment demand curve.

#### **QUS NO:-4**

What is the relationship between the marginal and average propensity to consume in the standard Keynesian consumption function.

#### **ANS NO:-4**

**MARGINAL PROPENSITY TO CONSUME:**

The proportion of each additional dollar of household income that is used for consumption expenditures. The marginal propensity to consume (abbreviated MPC) is another term for the slope of the consumption line and is calculated as the change in consumption divided by the change in income. The MPC plays a central role in Keynesian economics. It quantifies the consumption-income relation and the fundamental psychological law. It is <https://assignbuster.com/consumption-function-questions-and-answers/>

also a foundation for the slope of the aggregate expenditures line and is critical to the multiplier process. A related consumption measure is the average propensity to consume.

The marginal propensity to consume (MPC) indicates what the household sector does with extra income. The MPC indicates the portion of additional income that is used for consumption expenditures. If, for example, the MPC is 0.75, then 75 percent of extra income goes for consumption.

The marginal propensity to consume is critical to the macroeconomy and the study of Keynesian economics. First, the MPC captures induced consumption and the fundamental psychological law of consumer spending proposed by John Maynard Keynes as a key difference between his Keynesian theory and classical economics. Second, the MPC is the slope of the consumption line, which makes it the foundation for the slope of the aggregate expenditures line, as well. Third, the MPC affects the multiplier process and affects the magnitude of the expenditures and tax multipliers.

### **The MPC Formula**

The standard formula for calculating marginal propensity to consume (MPC) is:

MPC

=

change in consumption

change in income

This formula has a couple of interpretations.

First, it quantifies induced consumption, that is, how much of each extra dollar of income is used for consumption. If income changes by \$1, then consumption changes by the value of the MPC. Income induces the change in consumption at a rate measured by the MPC.

Second, the MPC is actually a measure of the slope of the consumption line. The measurement of slope is generally given as the “rise” over the “run.” For the consumption line, the rise is the change in consumption and the run is the change in income.

## **Average Propensity to Consume**

The marginal propensity to consume is one of two measures of the relation between consumption and income. The other is average propensity to consume (APC). Average propensity to consume is the proportion of household income used for consumption expenditures. It is found by dividing consumption by income.

The formula for calculating average propensity to consume (APC) looks a lot like that for the MPC, but with important differences:

APC

=

consumption

income

Rather than the CHANGE in consumption divided by the CHANGE in income, the APC measures TOTAL consumption divided by TOTAL income. In particular, the APC indicates how the household sector divides up total income. If, for example, the APC is 0.9, then 90% of the income received by the household sector is used for consumption. Moreover, whereas the MPC is constant, the APC actually changes from one income level to the next.

### **QUS NO:-5**

Most economists-and nearly all central bankers-seem to think that inflation is costly. But the quantity theory asserts that there is no long run link between money and output or between inflation and output. Can inflation be costly if quantity theory is true?

### **ANS NO:-5**

Yes, if quantity theory is true inflation can be costly because we know that there is an inverse relationship between the value of money and the price of a commodity and the value of money and price can explain the quantity theory of money.

$$VOM = 1/p$$

If the price of a good increases it will lead to a decrease in the value of money.

Similarly, if in the economy there is inflation, it means the price of a product will rise and it will further lead to a decrease in the value of money.

According to the quantity theory of money there is a direct and proportionate relationship between the quantity of money and the general price level and an inverse relationship between the quantity of money and the value of money.



Equations of quantity theory of money

Transaction approach

Cash balance equation

## ASSUMPTIONS

Constant ratio between bank money and Currency money

Money is a medium of exchange

No Hoarding

Full employment

Price level is a passive factor

Constant velocity

Long period

## ACCORDING TO FISCHER

The quantity theory of money is correct in the sense that the level of prices varies directly with quantity of money and value of trade are not changed. To fisher demand for money is made for transaction motive. Value of money, like any other good is determined at the point where demand for money is equal to supply of money.

Consumers need money to purchase goods and services. The quantity of money is related to the number of pounds exchanged in transactions. The link between transactions and money is expressed in the quantity equation.

On the left hand side, "M" is the quantity of money, "V" is the velocity of money, and "V-M" is essentially a measure of how the money is used to make transactions.

PRINCIPLES:-

The theory above is based on the following hypotheses:

The source of inflation is fundamentally derived from the growth rate of the money supply.

The supply of money is exogenous.

The demand for money, as reflected in its velocity, is a stable function of nominal income, interest rates, and so forth.

The mechanism for injecting money into the economy is not that important in the long run.

The real interest rate is determined by non-monetary factors.

Yes, the inflation will high in short time period, one more thing is it is good for long term only and according to this theory if price will high then income will increase but it will create inflation in short term.

## **QUS NO:-6**

Suppose Intel is considering building a new chip-making factory.

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Assuming that Intel needs to borrow money in the bond market, why would an increase in interest rates affect Intel's decision about whether to build the factory?

ANS:-A) As we all know that in the economy there is negative or inverse relationship between investment and rate of interest. So, Investment mainly depend upon the rate of interest. If rate of interest is high, than a businessman will not invest his money in building a factory.

According to this case, Intel is not having much funds in its hand so it is borrowing money on giving some amount of interest. If the rate of interest is higher , than intel should not do any type of investment in building a new-chip making factory.

If Intel has enough of its own funds to finance the new factory without borrowings, would an increase in interest rates affect still affect Intel's decision about whether to build the factory? Explain

ANS:-B) If Intel has enough of its own funds to finance the new factory without borrowings, so according to my opinion if there is any increase in the rate of interest, it would not affect Intel's decision to build the factory. Intel will do investment in making a new chip-making factory.

### **QUES NO:-7**

Explain the difference between saving and investment as defined by macroeconomist. Which of the following situations represent investment? Saving? Explain.

Your family takes out a mortgage and buy a new house

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Your roommate earns \$100 and deposits it in her account at a bank

You borrow \$1000 from bank to buy a car to use in your pizza delivery business.

### **ANS NO:-7**

Savings are money or other assets kept over a long period of time, usually in a bank without any risk of loss or making profit.

Investments are money or other assets purchased with the hope that it will generate income, reduce costs, or appreciate in the future. In an economic sense, an investment is the purchase of goods that are not consumed today but are used in the future to create wealth. In finance, an investment is a monetary asset purchased with the idea that the asset will provide income in the future or appreciate and be sold at a higher price. And usually it has also a risk of some loss

As far as we are talking about investment then it is certain amount of money which is saved or use in some projects where we can take profit more than the money we have saved or invested. In general terms investment means the use of money to make more money.

### **How Saving and Investing Differ:**

Saving — Objective: Short term needs Vehicles Used: Bank or money market accounts, CD's Risk: None on balances up to \$200, 000. 00 per depositor (FDIC) Return: Low interest. Key Benefit: Money is safe and accessible.

Key Drawback: Historically returns have not outpaced inflation. Savings are Idle.

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Investing — Objective: Long-term capital growth Vehicles Used: Stocks, bonds, mutual funds, tools, parts, equipment upgrades. Risk: Varies, depending on the source of securities owned. Return: Interest paid and capital gains earned. Lower cost of production in the future which allows greater net gains in the future. Key Benefit: Returns have outpaced inflation over the long term.

Key Drawback: You could lose money if securities decline in value.

Getting back to the difference between a saver and an investor, there is one word that separates them, and that word is leverage. One definition of leverage is the ability to do more with less. Saving can be a good vehicle for gain, but only because it protects investors from themselves and from incompetent or unscrupulous advisors. The mistakes that can be made in choosing investments or by holding onto the wrong investments can cost us dearly. But choosing investments well and using them — that holds the potential for great gains later.

Your family takes out a mortgage and buy a new house.

Ans a) As it is clear that purchasing of any asset is a part of investment not a saving because saving means to get money store in banks or lockers. So, my family takes out a mortgage and buy a new house is an investment.

Your roommate earns \$100 and deposits it in her account at a bank.

Ans b) It is also clear that anything deposited in a bank is a part of saving not a investment. So, my roommate earns \$100 and he deposited that amount into his account at a bank not buying an asset. Here it is savings.

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c) You borrow \$1000 from bank to buy a car to use in your pizza delivery business.

Ans c) It is also a part of investment because I borrow \$1000 from bank to buy a car in a hope to earn more by using that car in pizza delivery business.

### **QUS NO:-8**

Using the IS-LM model, show graphically and explain carefully the effects of An increase in government spending.

Ans a) What is government spending? It means that government expenditure. When there is an increase in govt. spending it means that the govt. is doing expenditure and release the money flow in the market. So, it further states that govt. spending lead to increase in money supply and which further lead to investment and saving .

From the diagram of IS-LM curve we can easily understand the relation between IS-LM curve and govt. spending . As govt. spending increased the investment and saving curve is also lead to increase from IS1-IS2.

b. An increase in the money supply

Ans b) In the economy we know that if there is demand in the market the price of the goods and services will effect, it will increase. and if price will increase in the market then govt. will increase the money supply in the economy. And which lead to effect the LM curve. An increase in money supply always reduce the rate of interest. If there is any increase in money supply than , LM curve also leads to shift rightward. It can be easily

explained with the help of diagram that when there is no increase in money then LM curve is , LM1 and when money supply increases then there is shift in LM curve from LM1 - LM2.

### **QUS NO:-9**

Consider an economy with three policy targets: 3 per cent unemployment, 5 per cent rate of inflation and balance of payment equilibrium. Discuss what policy instruments are available to a government to achieve these targets.

### **ANS NO:-9**

#### **1. Monetary Policy**

In the UK and US, monetary policy is the most important tool for maintaining low inflation. In the UK, monetary policy is set by the MPC of the Bank of England. They are given an inflation target by the government. This inflation target is 2%+/-1 and the MPC use interest rates to try and achieve this target.

The first step is for the MPC to try and predict future inflation. They look at various economic statistics and try to decide whether the economy is overheating. If inflation is forecast to increase above the target, the MPC will increase interest rates.

#### **2. Fiscal Policy**

This is another demand side policy, similar in effect to Monetary Policy. Fiscal policy involves the government changing tax and spending levels, in order to influence the level of Aggregate Demand. To reduce inflationary pressures the government can increase tax and reduce government spending. This will reduce AD.

### **3. Exchange Rate Policy**

In the late 1980s the UK joined the ERM, as a means to control inflation. It was felt that by keeping the value of the pound high, it would help reduce inflationary pressures. The policy did reduce inflation, but at the cost of a recession. To maintain the value of the £ against the DM, the government had to increase interest rates to 15%. The UK no longer uses this.

### **4. FOR BALANCE OF PAYMENT EQUILIBRIUM :-**

There are many points from which we can BOP equilibrium , these are :-

Here, IMPORTS are the major parts of keeping BOP equilibrium because mainly with the effect of this there is unequilibrium. Other factors are Transfer payments, government spendings, Election expenses etc.....

Imports:- The major reason for BOP equilibrium is imports if exports are lower than imports then there is a situation of unequilibrium. If we want equilibrium in INDIA then we have to increase our exports. And for this we have to give subsidies to the persons who are producing those things which are exported.

Transfer payments :- In India there are many people who are under the poverty line. Government gave them transfer payment to survive. But it is in a big amount that affects the balance sheet of government. I do not want to say that it should be removed but it should be less according to their budget.

### **QUS NO:-10**

An economy has full-employment output of 9000, and government purchases are 2000. Desired consumption and desired investment are as follows:



Real rate of interest Desired consumption Desired investment

2 6100 1500

3 6000 1400

4 5900 1300

5 5800 1200

6 5700 1100

Why do desired consumption and desired investment fall as real interest rate rises?

### **ANS NO:-10**

Desired consumption falls as real interest rate rises will be explained with the relationship between consumption and rate of interest.

Consumption function refers to the functional relationship between aggregate consumption and aggregate income  $C = f(y)$ . The schedule shows the various amount of consumption at various levels of income. This shows that when income increases, consumption also increases, but in a lesser proportion (i. e.) the proportion of income spent on consumption goes on falling as income increases. A part of additional income is not consumed and is therefore saved.

Rate of Interest: If the interest is high, then people will forget the present consumption and postpone it for a future date. Higher the rate of interest

payable, lesser will be purchasing power. This will certainly reduce the consumption.

Desired investment falls as real interest rate rises will be explained with the relationship between Investment and rate of interest.

Mainly we know that there is the inverse relationship between investment and rate of interest in the economy. It can be explained with the example, that I borrow \$2000 for purchase a car on which bank has allowed 15% rate of interest which is much higher. So, I have to pay \$300 as rate of interest which is large amount for me. After doing all this calculations I had take important decision that I will not invest money on purchasing a car.

The investment decision is a marginal benefit-marginal cost decision

The marginal benefit from investment is the expected rate of return ( $r$ )

The marginal cost is the interest rate ( $i$ ) that must be paid for borrowed funds; the two are the determinants of

investment spending.

An investment is made if the expected rate of return exceeds the interest rate ( $r > i$ ). Investments are not made when interest rate exceeds the expected rate of return ( $r < i$ )

### **Expected rate of return:**

Businesses only make investments when they expect to receive profits.

$r = (TR - \text{cost of investment}) / \text{cost of investment}$ .

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Firms are risk takers. therefore, can't guarantee profits.

Firms have to think about expected rate of return must be greater than the real interest rate.

### **The real interest rate:**

Business only invest when the rate of return is greater than the interest rate

$(r > i)$

Ex: Taking out a loan for a 1000 dollar machine. If the interest rate is 7%, you pay \$70 dollars in interest ( $1000 \times 0.07$ ). If the rate of return is 10%, then you gain \$100 from buying the machine ( $1000 \times 0.1$ ).

Your net profit is \$30 ( $\$100 - \$70$ )

Notice that the rate of return  $>$  interest rate, therefore the investment is worth it.

Real interest rate = Nominal Interest Rate - Inflation

Interest cost = interest rate  $\times$  cost.