

Effective Demand : Meaning

Let us see how the different economists have defined effective demand:

“The value of aggregates demand at the point of Aggregate Demand function where it is intersected Aggregate supply function will be called the effective demand”.

“The adjective effective is used to designate the point on the aggregate demand curve where it is intersected by aggregate supply curve.”

“The value of total spending as given by the aggregate demand function where it is intersected by the aggregate supply function will be called effective demand.”

From the above definitions, it is clear that “Effective demand is that level of aggregate demand which equal to aggregate supply. It is called effective since it determines the level of income output and employment in the economy.

Effective Demand : Its Determinants

Effective demand depends upon two factor:

- 1) Aggregate demand
- 2) Aggregate supply

Let us study these in detail

Aggregate demand by aggregate demand we mean the total value that the household firms government and rest of the world sector are willing to pay for the output of the company of the economy during a given period

Aggregate demand has the following four constituents

- a) household consumption demand
- b) private investment demand
- c) govt. demand for goods and services
- d) total export demand

aggregate demand in any economy is the summation of these four constituents mathematically,
aggregate demand= consumption demand+ investment demand +govt. purchase + export demand

in symbolic form,

$$AD = C + I + G + X ,$$

Where C stands for consumption demand,

I stands for investment demand,

G stands for govt. demand,

X stands for exports.

In simple Keynesian model, economy is assumed to be closed and role of Govt. as a spender or a taxpayer is ignored. In such model, therefore,

$$A.D. = C + I$$

Aggregate demand is also called as aggregate demand price. A schedule showing aggregate demand at the various levels of income and employment is called as aggregate demand function or aggregate demand schedule. The following table shows hypothetical aggregate demand function for any economy.

A Hypothetical Aggregate Demand Function

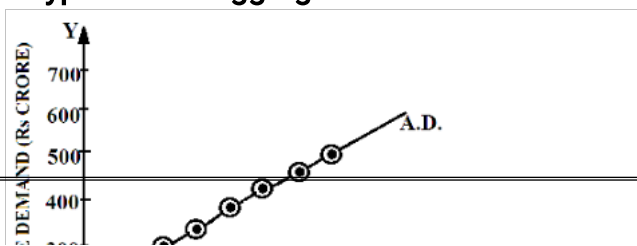
(1) Level of Employment (Lakh Persons)	(2) Level of Income or output (Y) (Rs crore)	(3) Consumption (C) (Rs crore)	(4) Savings S = Y - C (Rs crore)	(5) Investment I (Rs crore)	(6) A .D = C + I (Rs crore)
0	0	100	-100	100	200
N ₁	100	150	-50	100	250
N ₂	200	200	0	100	300
N ₃	300	250	50	100	350
N ₄	400	300	100	100	400
N ₅	500	350	150	100	450
N ₆ = N _f	600	400	200	100	500
N _f	700	450	250	100	550

Level of income or output corresponding to the different levels of employment is given in column 2. As the level of income increases, consumption also increases. Investment in the economy is assumed to be Rs 100 crore irrespective of the level of income. Employment increases up to N₆, i.e. situation of full employment. After this it becomes constant. Full employment means further increase in output in real terms is impossible. Further increase in income beyond this limit reflects only increase in money income, i.e., in prices. In other words, good worth Rs 600 crore are being sold for Rs 700 Crore.

A curve showing aggregate demand in the economy at the various levels of income and employment is called as aggregate demand curve.

The above table when presented will give us aggregate demand curve as ahead:

A Hypothetical Aggregate Demand Curve



We have taken income employment along x –axis, these two variables are represented by different scale. Along Y-axis, we have taken aggregate demand which is the sum total of consumption and investment.

Aggregate supply. By aggregate supply, we mean the total value of the output available for purchase by the economy in a given period.

Thus, **aggregate supply, is nothing but national income of the country.** It can be defined in another way also. it is the aggregate cost of producing the output which goes to the factor as income in the form of wages, rent , interest and profit. Now, the producers must receive what it has cost them in the purchase of factor of production to produce the output, otherwise they will have tendency to contract their production activity. Therefore, aggregate supply can be defined in still another way.

Aggregate supply is the total amount of money which all the producers in the economy must expect to receive from the sale of the output produced by the given number of workers (and other factors) if it is to be just worth employing them.

As written above, aggregate supply in any economy is nothing but national income. During any period, some part of national income is spent on consumption, some part is saved some part is spent on paying taxes to the Govt. and remaining part is saved on imports of goods and services from the rest of the world sector. Hence, aggregate supply is the sum of these four components. Mathematically,

$$\text{Aggregate supply} = \text{consumption} + \text{saving} + \text{tax} + \text{imports}$$

Where 'C' stand for consumption,

'S' stand for saving,

'T' stand for payment

And 'M' stand for imports.

In simple Keynesian model, economy assumes to be closed without any govt. transaction. In such economy

$$\text{A.S.} = \text{C} + \text{S}$$

Aggregate supply is also called as aggregate supply price. A schedule showing aggregate supply at various levels of income and employment is called as aggregate supply function or aggregate supply schedule.

The following tables shows hypothetical aggregate supply function for any economy.

A Hypothetical aggregate supply function

Level of	Level of Income	Consumption	Savings	A.S. = C + S
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Employment (Lakh Persons)	(Y) (Rs crore)	(C) (Rs crore)	S = Y - C (Rs crore)	(Rs crore)
0	0	100	-100	0
N ₁	100	150	-50	100
N ₂	200	200	0	200
N ₃	300	250	50	300
N ₄	400	300	100	400
N ₅	500	350	150	500
N ₆ = N _f	600	400	200	600
N _f	700	450	250	700

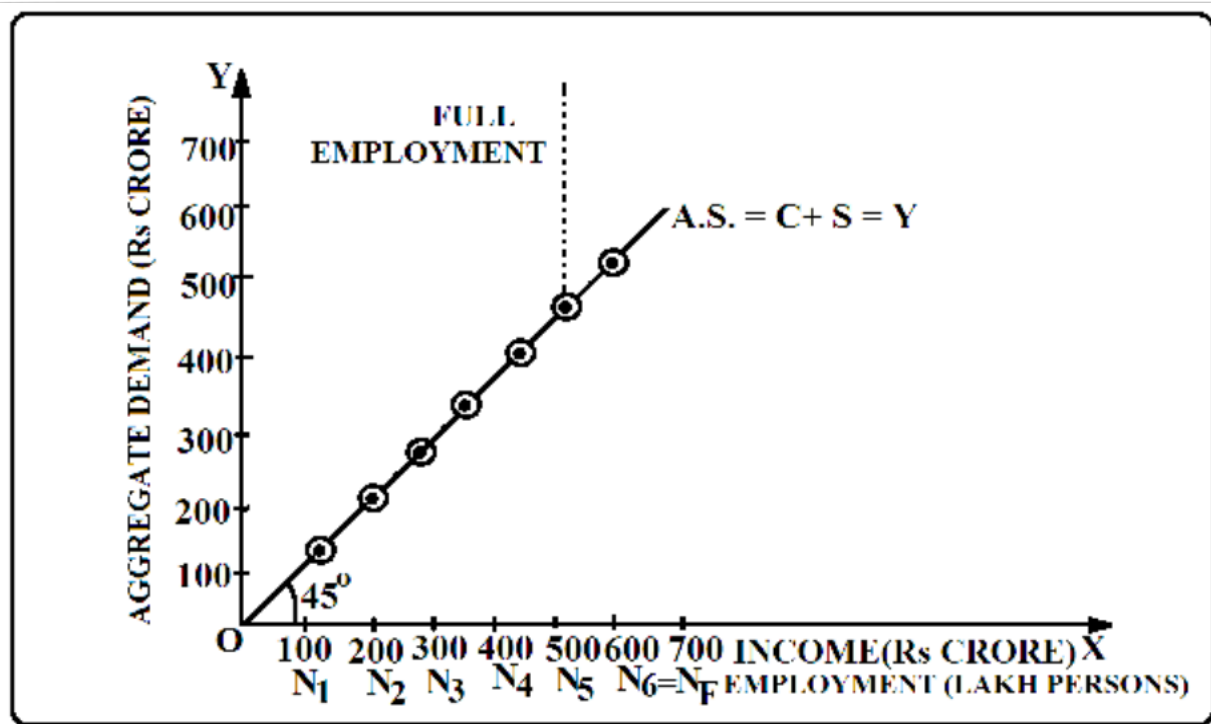
Level of income or output corresponding to various levels of employment is given in column 2.

As evident, aggregate supply is equal to income always. After the full employment level of output is obtained, further rise in aggregate supply (or income) in real terms is impossible. Further rise in aggregate supply beyond this limit reflects only increase in aggregate supply in money terms, i.e., rise in price.

A curve showing aggregate supply in the economy at the various of income and employment is called as aggregate supply curve.

The above hypothetical data when presented will give us aggregate supply curve as shown ahead;

Hypothetical aggregate supply curve



Since aggregate supply is always equal to income, aggregate supply curve is of the form of 45° line. After the level of full employment N_6 is achieved, further increase in aggregate supply or income is not possible. Dotted vertical line depicts this fact. However in money terms aggregate supply or income may go on rising because of rise in price. It means aggregate or income can rise in real terms only up to 600 crores. Increase in the level of income after this reflects only increase in money income because of rise in price.

Effective demand: Determination of income and employment

While discussing aggregate demand, we discussed four sectors the household sector, private business sector the government sector and the foreign sector. For simplifying analysis, let us ignore govt. sector foreign sector. In other words we assume closed economy without government intervention. In such an economy, aggregate demand will be equal to consumption demand plus investment demand. Mathematically,

$$A.D. = C + I$$

In such a system the entire income will either be consumed or saved. Mathematically,

$$A.S. = Y = C + S$$

The following hypothetical schedule shows how equilibrium level income and employment is determined in such a system.

A hypothetical schedule of A.S. and A.D. for a closed Economy without govt. Intervention.

Level Employment lakh Persons	Level of Income (Y) on A.S. (Rs crore)	Consumption (c) (Rs crone)	Savings $S = Y - C$ (Rs crone)	Investment (I) (Rs crore)	A.D = C + I (Rs crore)	Result
0	0	100	-100	100	200	AD > AS

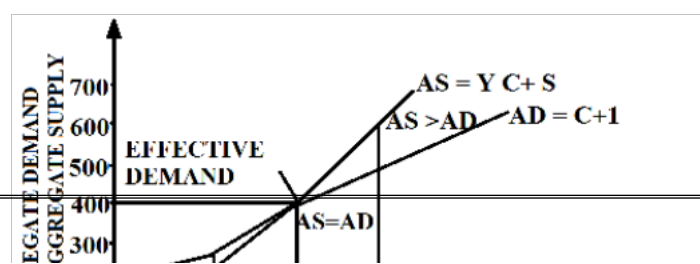
N_1	100	150	-50	100	250	Income has tendency to increase
N_2	200	200	0	100	300	
N_3	300	250	50	100	350	
N_4	400	300	100	100	400	AD = AS
N_5	500	350	150	100	450	AD < AS
$N_6 = N_f$	600	400	200	100	500	Income has tendency to decrease
N_f	700	450	250	100	550	

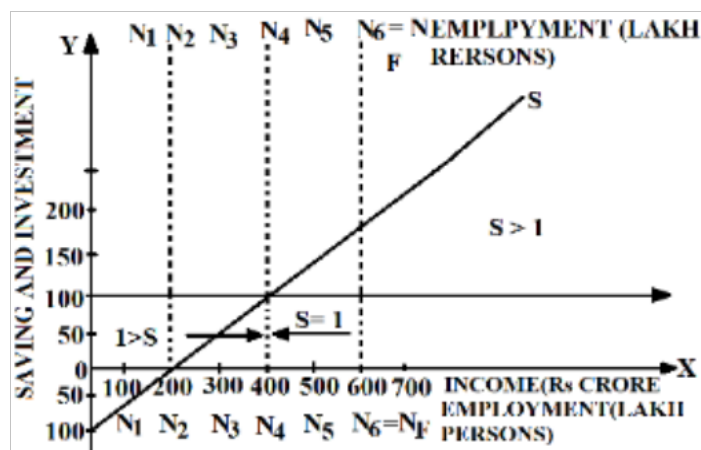
In the upper part of the diagram, we have taken income and employment along X-axis. These two variables have been represented by different scales. When level of income in economy is Rs 100 crore, diagram shows clearly, that level of employment is N_1 lakh persons. In other words, N_1 lakh persons are employed for output worth Rs 100 crore. Similarly corresponding to Rs 200 crore level of income, level of employment is N_2 lakh person and so on. This is so done to determine level of income and employment simultaneously. In the employment is not possible. Hence real output cannot be increased beyond this limit. Increase in income beyond this limit reflects only increase in money income, i.e., rise in prices.

Along Y-axis we have taken A. D. and A.S. since $A. S = Y$, therefore, A.S. curve is a curve of 45° . In the lower part of the diagram, we have plotted saving and investment along Y-axis.

From the schedule and diagram, it is clear that aggregate demand is equal to aggregate supply at income level of Rs 400 crore and employment level of N_4 lakh persons. Prof. Keynes has called this level of aggregate demand as effective demand. In other words, effective demand is the level of aggregate demand which equals aggregate supply. The equilibrium level of income in the economy will be Rs 400 crore and the equilibrium level of employment will be N_4 lakh persons.

Let us see, what happens at the other level of income and employment. When level of income is Rs 200 crore, and level of employment is N_2 lakh persons, aggregate demand is Rs 300 crore, aggregate supply is Rs 200 crore. Aggregate demand is more





than aggregate supply. It means that the total value that the different sectors are willing to pay for the output of the economy (A.D.) is more than the minimum expected receipts of the businessmen (A.S.) Therefore, economy will have tendency to expand. Income and employment level will have tendency to increase.

Similarly, when level of income is Rs 600 crore and level of employment is N_6 lakh persons, aggregate demand is Rs crore and aggregate supply is Rs 600 crore. Aggregate demand is less than aggregate supply. It means that the total value that the different sectors are willing to pay for the output (A.D.) is less than the minimum expected receipts of the businessmen. Therefore economy will have tendency to contract. Income and employment will have tendency to decrease.

The equilibrium can also be shown with the help of saving and investment equality.

We know, in our model,

$$A.D. = C + I$$

$$A.S. = Y = C + S$$

For equilibrium

$$A.D. = A.S.$$

$$C + I = C + S$$

$$I = S$$

Thus, for equilibrium investment must be equal to saving. This equality is shown in the lower part of the diagram. At level of income of Rs 400 crore and level of employment of N_4 lakh persons, investment and saving are equal. At Rs 200 crore level of income, investment and saving. It means, at this level of income, what businessmen want (or plan) to invest is more than what households want (or plan) to save. Therefore, economy will have tendency to expand. Income and employment will have tendency to expand. Income and employment will have tendency to increase. At Rs 600 crore level of income, investment is less than saving. It means at this level of income what businessmen want (or plan) to save. Therefore, economy will have tendency to contract. Income and employment will have tendency to decrease.

