UNIT 5: OUTPUT AND EMPLOYMENT: CLASSICAL THEORY

UNIT STRUCTURE

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5.1 LEARNING OBJECTIVES

After going through this unit you will be able to:

- acquire a clear idea of J.B.Say's famous Law of the Markets
- grasp the implications of the law to macro economy and policy making
- discuss the Classical Theory of Employment and the Keynesian objections to Classical Economics.

5.2 INTRODUCTION

In this unit, we shall discuss the Classical Theory of Income, Output and Employment. The Classical theory is primarly based on the Say's Law of Marrket put forward by Jean-Baptiste Say (1767-1832).

In this unit we shall briefly discuss the Say's Law of Market, the basic assumptions and the theory itself with suitable diagrammatic explanations. We shall also discuss the criticisms raised by Keynes against it.

5.3 BASIC FOUNDATION AND ASSUMPTIONS OF THE CLASSICAL THEORY

Before we discuss the basic assumptions of the Classical Theory of Income, Output and Employment, let us briefly discuss the Say's Law of Market, the very foundation of the theory. As we have already noted, the law attributed to J.B.Say is one of the pillar stones of Classical economics. According to this law, '*products exchange for products*', which has been popularly interpreted as '*supply creates its own demand*'. The justification behind this law is that whenever something is produced and brought to the market, it only implies that the supplier wants to exchange his product for something useful which he needs. Therefore, a supplier while bringing goods to the market also brings his own demand along. Based on this observation it is claimed that in a free market economy production can be expanded as long as there are unutilized resources in the economy and it can be sold as this will also generate an equivalent amount of demand. This leads to the conclusion that as long as free market conditions exist, there can be full employment equilibrium and full employment could be the norm. This, however, does not deny the possibility of temporary over production in some sectors or items. Misdirected production may result in such over production. But this will be only a temporary phenomenon as entrepreneurs will shift from the production of goods they can not sell at a profit to goods they can sell at a profit. Thus Say's law of the markets denies any possibility of general over production or general deficiency of aggregate demand.

The above is quite logical in a ***barter economy***. In a barter economy the supply of a product always means an equivalent demand for some other product. This is quite obvious as a barter system requires double coincidence of wants. But this does not seem to be necessary in case of a monetary economy. In a monetary economy, the suppliers get paid in money which they use to buy other products which they need. But it is not at all necessary that they will spend their entire sale proceeds on buying other products. But the classical writers deny this by maintaining that money is only a medium of exchange and nothing else. It is demanded for what it



Barter economy: The economic system where goods are exchanged for goods.

does and not for what it is. There is no reason why people should hold on to money in idle form.

It is, of course, admitted that people do save out of their income and saving creates a gap between supply and demand. But this possibility is ruled out by the classical writers by maintaining that saving is always invested. Thus, while saving is seen as an increasing function of rate of interest, the investment is seen as a decreasing function of rate of interest. The equilibrium rate of interest is determined when saving equals investment. This equality is brought about by the flexible rate of interest. Therefore, the flexible interest rate mechanism brings about saving investment equality and justifies Say's law even in a money economy.



Great Depression: the world economic crisis of 1929-33.

The historical experience during the ***Great Depression*** of 1930s belied Say's law. There was massive over production or under consumption. We know that Say had categorically ruled out any general overproduction or under consumption. The Depression proved him wrong. But classical writers led by A.C.Pigou put the blame not on the market but on the organized work force that prevented a downward mobility of the wage rate. They maintained that workers were demanding a wage rate that makes their employment unprofitable from the entrepreneurs point of view. Therefore, according to them, it was wage rigidity that prevented employment and created the problem of demand deficiency. They argued that if wages and thereby prices are flexible downwards, full employment will still be the norm in a free market economy.

Implications of the Say's Law and the Basic Assumptions of the Classical Theory of Income, Output and Employment: Let us now summarise the basic implications of the Say's Law of Market and the basic assumptions of the Classical framework :

- **Absence of general over production:** Since supply always creates its own demand, there can never be over production of goods and services. Whatever is produced will be consumed.
- **No general unemployment:** As long as there are unutilized resources, production can be increased by mobilizing these resources without any fear of anything remaining unsold. Hence, there can never be the

problem of general unemployment.

- **Market Mechanism:** The free forces of market demand and supply will always correct any distortion in the production. Sectoral over production will be corrected by reallocation of resources from surplus sectors to deficit sectors. Thus, unemployment, if any, will only be a short run/temporary phenomenon.
- **No government intervention:** Since, in general, under consumption or unemployment is ruled out, there is no need for government intervention in the market. Free forces of the market are capable of correcting any short run, temporary problem. In the long-run, full employment equilibrium will be the norm even without conscious government effort in a free market economy.



CHECK YOUR PROGRESS

Q 1: The observation 'products exchange for products' of J.B.Say is popularly interpreted as …….. (Fill in the blanks)

Q 2: Pick up the correct option from the underlined words/options.

(a) The Say's law is unambiguously true in case of money/barter/ mixed economy.

(b) Say's law of the market implies state activism/ laissez faire

(c) According to Say's law there can be no temporary or long run unemployment/ temporary unemployment but no long run unemployment

(d) In the world of Say products can be increased as long as there are - unutilized resources/buyers in the market.

(e) Say's law is defended in a money economy with saving on the basis of: i) Quantity theory of money ii) Flexible rate of interest iii) Flexible wage rate and price iv) All of the above.

5.4 CLASSICAL THEORY OF EMPLOYMENT

The classical theory of employment may be attributed to the economists who adopted and perfected the economics of David Ricardo,

including J.S. Mill, Alfred Marshall, and A.C. Pigou, among others. The theory consists of Say's law of the markets, quantity theory of money, flexibility of rate of interest, wage-price flexibility, and a production function with unchanged technology. The classical theory of employment may be seen as a model of income and output determination in a free market economy. It involves the following relationships :

(i) Ns (W/P) = Nd(W/P)……(Labour market equilibrium)

(ii) Y = f (N,K)…… ..(Production Function)

(iii) M = kPY ……(Money market equilibrium)

(iv) S(r) = I (r) ……..(Goods market equilibrium)

where, Ns: Supply of labour; Nd: Demand for labour; W: money wage rate; P: General price level; Y: National income or output; K: Stock of capital; M: Quantity of money; k: Portion of income held in cash; S: Saving; I: Investment and r: market rate of interest.

The above *labour market equilibrium* (equation (i)) implies that both the demand for labour and the supply of labour are functions of real wage. While supply is a direct function, demand is an inverse function of real wage.

The *production function* indicates that with fixed techniques of production and fixed capital stock, output becomes a function of employment in the short run.

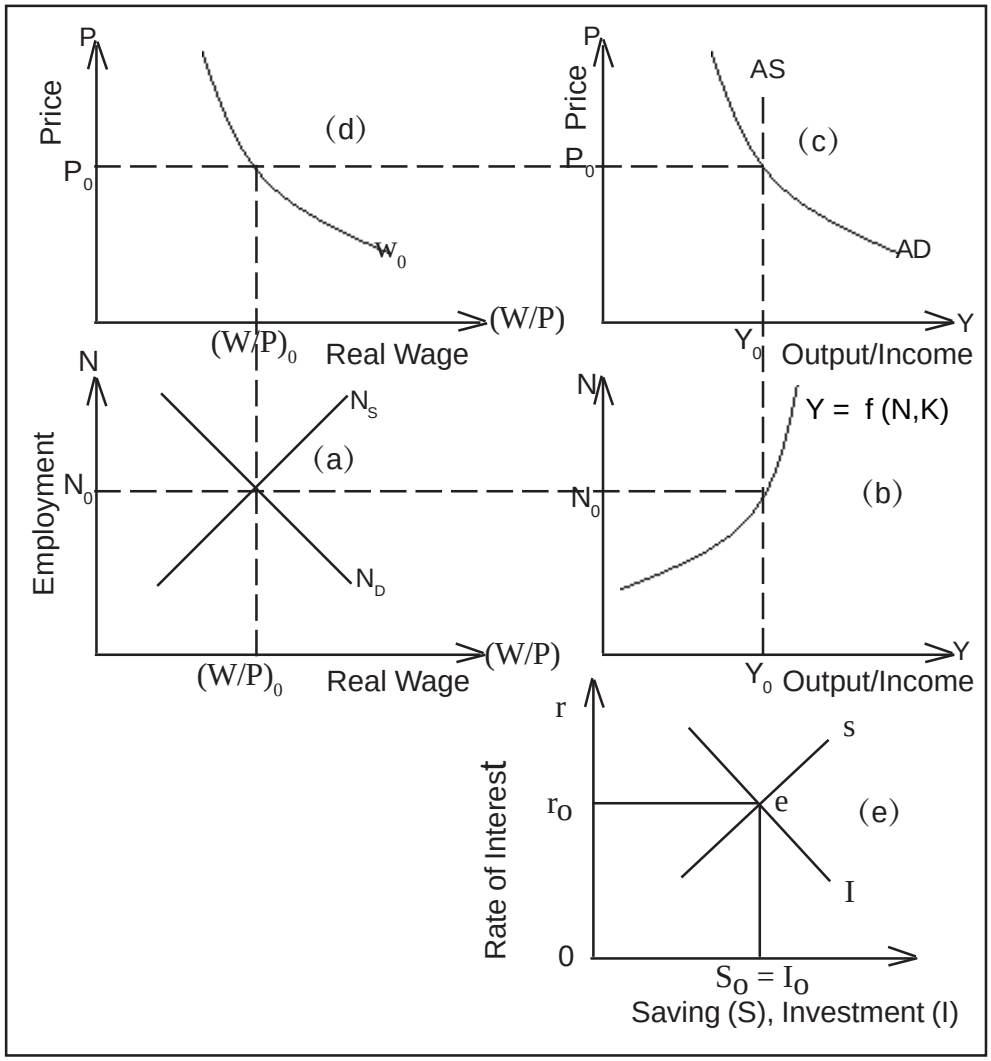
The *money market equilibrium* asserts the classical position that money is just a medium of exchange and it determines the general price level. The money wage adjusts to the equilibrium price level to produce the real wage required for full employment equilibrium.

The *goods market equilibrium* is indicated by the saving investment equality. While saving is a direct function of rate of interest, investment is an inverse function of the latter. The equilibrium interest rate is determined by the interaction of the saving and investment functions. It determines how real income is allocated between saving and consumption as well as how production is allocated between consumption goods and capital goods.

The above stated proposition not only specifies the levels of employment, output, consumption, saving, interest rate, price level, and

money wage rate but also something much more. They show that the employment level is uniquely determined at the full employment position. The price level will fall if the existing level of output can not be sold at the prevailing price. Similarly, the money wage will fall if there appears unemployment. With flexible wage and price, automatic full employment follows logically. It also follows that output will be that which can be produced with a fully employed labour force and the price level will be that at which the money supply will purchase this full employment level of output. The money wage will also be so related to the price level so as to make it profitable for the entrepreneurs to produce the full employment level of output. The entire system can be illustrated with the help of the panels of Figure 5.1.

Figure 5.1: Determination of Employment, Income etc.



In panel (a) of the Figure 5.1 the demand for and supply of labour determines the level of employment and the real wage rate. Both the demand for and supply of labour are functions of the real wage. While demand curve ($N_{D)}$ slopes downward because of the diminishing return, the supply curve ($N_{S)}$ is upward sloping as more labour is offered only at a higher wage. The intersection of the demand and supply curves determines both the real wage $(W/P)_0$ and the level of employment N_0, which is the full employment level. Given the production function, this level of employment determines the level of income or output at Y_0 in the economy as shown in panel (b). This income constitutes the aggregate supply (AS) for the economy. At the full employment level of income Y_0, the aggregate supply curve becomes perfectly inelastic. Given this perfectly inelastic supply curve, the aggregate demand curve AD, determined by the quantity of money decides the general price level P_0 which is shown in panel (c). This price level finally determines the real wage rate where the money wage is depicted by the downward sloping curve in panel (d). The money wage W_0 adjusts to the equilibrium price level to produce the real wage required for full employment equilibrium. With $(W/P)_0$ as equilibrium real wage rate and the equilibrium price level at Po, the required money wage determined is W_0. The goods market equilibrium brought about by the flexible rate of interest is shown separately at panel (e). With upward sloping saving curve (S) and downward sloping investment curve (I), the equilibrium rate of interest r_0 is determined by the intersection of the two curves. It determines how real income is distributed between saving and consumption. It also determines how production is allocated between consumption goods and capital goods.



CHECK YOUR PROGRESS

Q 3: Choose the correct one from the underlined options.

(a) According to the classical theory, saving is a function of income / rate of interest / both income and rate of interest.

(b) The aggregate supply (AS) curve in a situation of full employment is perfectly elastic/highly elastic/perfectly inelastic.

(c) The aggregate demand (AD) curve is downward sloping because of the diminishing return / wage rigidity / falling price.

Q 4: $N_S(W/P) = N_D(W/P)$. What does this equation mean in the Classical Theory of employment? (Answer in about 30 words)

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Q 5: How is the equilibrium rate of interest determined in the Classical Theory of Employment?(Answer in about 30 words)

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5.5 KEYNES' CRITICISMS OF THE CLASSICAL THEORY

The classical conclusion that the economy has an automatic tendency to move towards full employment equilibrium is not widely accepted today. However, the most scathing criticism of the classical theory of employment came from J.M.Keynes. These are briefly outlined below:

- The long run analysis of the classicists was rejected by Keynes as being impractical. In this regard he observed, "in the long run we are all dead".
- Keynes also questioned the realism of the policy of flexible wage. In a world, where trade unions have become a part of life, it is highly unrealistic to expect that workers will agree to a reduction in their wages with the hope that this will give employment to their unemployed colleagues.
- Even if wage is reduced, this is not going to have any positive impact on the entrepreneurs ability as reduced wage will mean reduced cost of production , reduced price and hence, unchanged real wage.

- Reduced wages will also bring down the aggregate demand and thereby further aggravate the problem of demand deficiency. This is because workers constitute a huge section of the society and bulk of the consumption demand emanates from them.
- Keynes also regarded under or unemployment as the norm and full employment as a 'fortuitous' accident in a free market economy. He blamed this on the forces operating in the market and saw no logical reason why they should take the economy to a situation of full employment equilibrium.
- As regards consumption expenditure, Keynes put forward his 'fundamental psychological law of consumption'. According to this law, when people's income increases, their consumption expenditure also increases but less than proportionately to the increase in income. Consequently, overtime a gap appears between income and consumption indicating positive saving and implying violation of Say's law of the market.
- There is no reason to believe that this gap will be exactly bridged by investment expenditure as savers and investors are two different groups of people.
- The saving investment equality is thought to be brought about by the classicists with a flexible rate of interest. But Keynes believed that saving is a function of income and not of interest.
- Even if investment depends on rate of interest, the rate is not fully flexible. Keynes maintains that there is a floor rate of interest at which demand for money becomes perfectly elastic and the rate of interest can not fall further. This is what is known as the 'liquidity trap'.
- Another factor that influences investment is the expectation that belongs to the realm of human psychology. Naturally, this makes private investment uncertain, erratic, and unreliable. Unfortunately the classicists overlooked the role of expectation altogether.
- A fundamental objection of Keynes is that classical writers denied the store of value function of money. According to him, money is not just a veil but much more than that. It is the link between the present and the

future and money is demanded not only for what it does but also for what it is.

- There is a water tight compartmentalization between the goods market and the money market in the classical analysis. This is known as the 'classical dichotomy'. Keynes regards this to be wrong and provides an analysis where these two markets are integrated through the rate of interest.
- The classical world is a world of certainty. But Keynes regards this as unrealistic and irrational. For him, a capitalist economy is a world of uncertainty. Individuals try to be rational by holding on to the only perfectly liquid financial asset- money, in an otherwise irrational world.
- The classical analysis and position logically leads to a free market economy based on the ***laissez-faire*** doctrine. Keynes rejects this doctrine outright. Through his path breaking analysis he shows that intervention of the state becomes a necessity to save the system of capitalism. Because of this the fiscal policy of the government emerges as a powerful weapon in Keynes, while the classical economists depended on the monetary policy.



Laissez-faire: the economic system without any kind of government intervention.



CHECK YOUR PROGRESS

Q 6: Pick up the correct option from the underlined options.

(a) The statement 'in the long run we are all dead' is attributed to- J.B.Say/ J.M.Keynes/ A.C.Pigou.

(b) J.M.Keynes highlighted the medium of exchange function of money/ store of value function of money/ means of payment function of money.

Q 7: What does 'classical dichotomy' refers to? (Answer in about 40 words)

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5.6 LET US SUM UP

- The Classical Theory of Income, Output and Employment was primarily based on the Say's law of the market. It asserts that supply always creates its own demand. As a result, there can never be over production or under consumption in the economy.
- The later day classical writers defended the Say's law, which is logically true in a barter economy, even in a money economy with saving by leaning on the quantity theory of money, flexibility of rate of interest, and the flexibility of the wage and general price level.
- The classical theory of employment may be attributed to the economists who adopted and perfected the economics of David Ricardo, including J.S.Mill, Alfred Marshall, and A.C. Pigou among others.
- The Classical theory involves the labour market, the production function with unchanged technology, money market, and the goods market.
- The demand for and supply of labour determines the level of employment and the real wage rate. Both the demand for and supply of labour are functions of the real wage.
- The Classical propositions not only specify the levels of employment, output, consumption, saving, interest rate, price level, and money wage rate but something much more. They show that the employment level is uniquely determined at the full employment position.
- The most severe criticism of the classical theory of employment came from J.M. Keynes. Keynes objected to the classical theory because of its unrealistic assumptions, as well as wrong policy prescriptions.
- Keynes also pointed out that a capitalist economy is full of uncertainty and human expectations play a crucial role in economic decision making. This makes the economy inherently unstable and erratic.



5.7 FURTHER READING

1) Jhingan, M. L. (2014). *Advanced Economic Theory. New Delhi:* Vrinda Publication Pvt. Limited

2) Rana, K.C. & Verma, K.N. (2009). *Macroeconomic Analysis*. Jalandhar: Vishal Publications.

3) Shapiro, E. (2013). *Macroeconomic Analysis*. New Delhi: Galgotia Publications Pvt. Ltd..

5.8 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q 1 : 'Supply creates its own demand'.

Ans to Q 2 : (a) Barter Economy

(b) Laissez faire

(c) Temporary unemployment but no long-run unemployment

(d) Unutilised resources

(e) (iv) All of the above

Ans to Q 3 : (a) Rate of interest

(b) Perfectly inelastic

(c) Diminishing return

Ans to Q 4 : In the Classical Theory of Employment the equation Ns (W/P) = Nd (W/P) means that the labour market is in equilibrium.

Ans to Q 5 : The equilibrium interest rate is determined by the interaction of the saving and investment functions.

Ans to Q 6 : (a) J.M.Keynes

(b) Store of value function of money.

Ans to Q 7 : 'Classical dichotomy' refers to the watertight compartmentalisation of the goods market and the money market. Saving investment equality establishes the goods market equilibrium and demand- supply equality of money marks the money market equilibrium with no link between the two markets.



5.9 MODEL QUESTIONS

Short Questions (Answer each question in about 150 words)

Q 1: Write a short note on the implications of the Say's Law of Markets.

Q 2: Write a short note on Keynes' objections to the Classical Theory of Employment.

Long Questions (Answer each question in about 300-500 words)

Q 1: State and explain the Say's law of the markets. What are the criticisms against the law?

Q 2: Give a brief outline of the Classical theory of employment.

Q 3: On what grounds Keynes objected to the Classical theory of employment?

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