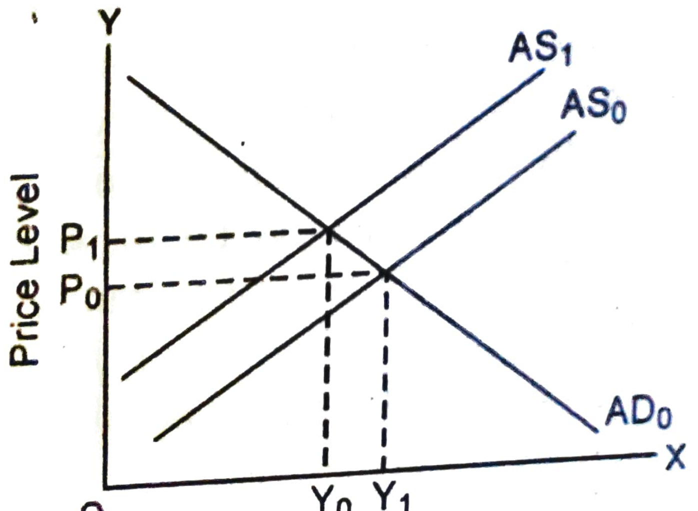
point of effective demand or equilibrium is not necessarily determined at full employment. It can take place at full employment or in the under-full employment or over-full employment situation.

8. SHIFTS IN AGGREGATE SUPPLY OR SUPPLY SHOCKS

The short-run aggregate supply is often supposed to remain fixed on account of such factors as labour productivity, wages, costs of materials, constancy of techniques of production, price level and difficulty in wage cost-price adjustment and failure of monetary fiscal and other policy to bring in quick adjustments in wages, costs and prices with employment.

However, the world economies can not rule out the supply shocks that have impact upon output and employment. The supply shocks, may be adverse and favourable.

The *adverse* supply shock is one that shifts up the aggregate supply curve. The macroeconomic story of the 1970's was a story largely of the negative or adverse supply shocks. The steep increase in oil price by OPEC between 1971 and 1974 and then in 1979 and 1980 led to high inflation along with recession.



The impact of adverse supply shocks upon the aggregate supply curve and prices and output may be shown through Fig. 6.

Given the aggregate demand and aggregate supply curves AD_0 and AS_0 respectively, initially the equilibrium income or output is Y_0 and price level is P_0. The adverse supply shock such as a sharp increase in oil price causes a shift in the aggregate supply curve to AS_1. The price level in the new equilibrium position shifts upto P_1 and the output or income falls to Y_1. Thus the adverse supply shock is doubly unfortunate for the economy. On the one hand, it raises price level and, on the other hand, it lowers output.

The supply shocks may be *favourable*, when there are technical improvements in labour productivity, fall in wages and material costs and off-setting of demand-raising policies. The favourable supply shocks can cause a shift in the aggregate supply curve to the right of the original aggregate supply curve. It may result in a rise in income or output and a slowing down of price increase.

9. IMPORTANCE OF EFFECTIVE DEMAND

The principle of effective demand is the core of Keynes' general theory of employment. The entire Keynesian theoretical and policy economic structure rests upon the foundation of this principle. Klien had rightly said, "The revolution (Keynesian) was solely the development of a theory of effective demand." According to Dillard, "The logical starting point of Keynes's theory of employment is the principle of effective demand." The importance of the concept of effective demand in Keynesian analysis can be fully understood from the following facts :

(i) Determinant of employment : Keynes held that the level of employment in a country, is determined by the level of effective demand. A rise in effective demand leads to a higher level of employment and vice-versa. According to Keynes, the basic cause of unemployment in a country is the deficiency of aggregate demand or the effective demand.

(ii) Rejection of Say's Law : Says' law of markets—supply creates its own demand, can be true if aggregate income remains equal to aggregate expenditure. However, when income increases, consumption increases by a somewhat smaller amount and the saving gap becomes wider and wider. It means the aggregate expenditure falls short of income. The aggregate demand fails to remain equal to aggregate supply. The deficiency of aggregate demand creates over-production and unemployment and Says' law of markets stands rejected.

(iii) Refutation of Pigou's wage-cut argument : Pigou suggested that employment could be raised through a cut upon the money wages of the workers. Keynes refuted Pigou's wage cut argument on the ground that a cut on money wages would reduce the purchasing power of the workers. They would be forced to reduce consumption spending. Fall in consumption would mean a reduction in business sales and consequently the investment spending would also be adversely affected. Thus a wage cut can result in a deficiency of aggregate demand. In such a situation, there is a danger of unemployment and Pigou's wage-employment argument becomes invalid.

(iv) Under-employment equilibrium : Keynes refuted the classical assertion of full employment equilibrium through his principle of effective demand. According to him, the full employment equilibrium can be possible only in a unique situation, when the ADF intersects the ASF on the inelastic part of the latter. But since consumption rises by a smaller amount than income, the aggregate demand function remains depressed and intersection betwee ADF and ASF takes place at the relatively more elastic part of the latter. Given that point of effective demand, some work-force is still unemployed. Thus the economic system left to itself is likely, in general, to have an under-employment equilibrium.

(*v*) ***Vital importance of investment*** : In the capitalist economies, the under-employment equilibrium is a reality. The basic cause of it is under-consumption or over-saving. It is not possible to raise consumption in the short period for raising the level of effective demand or employment. So only alternative left to raise the level of effective demand is to raise investment. In this way, investment has the most vital and strategic significance for the stabilization of the capitalistic economy at a higher level of income, output and employment.

(*vi*) Paradox of poverty : The gravest contradiction in the advanced capitalistic countries is that there is *poverty in the midst of plenty*. Higher the level of income, greater is the danger of unemployment and economic collapse. This paradox is caused by the deficiency of aggregate demand on account of (*a*) under-consumption and (*b*) over-saving. Since consumption expenditure remains stable in the short period and investment opportunities are limited, the widening saving gap can not be wiped out. That causes the deficiency of aggregate demand and fall in the level of effective demand and employment. Keynes considered the paradox of poverty as a serious defect in the modern capitalistic system. In his words, "The richer the community .... the more obvious and outrageous are the defects in the modern capitalistic system." In this context Joan Robinson remarked, "The popular description of unemployment is poverty amidst plenty." The increasing over-saving gap or deficiency of aggregate demand is the basic cause of poverty and contraction in an economically rich country.

10. INVESTMENT MULTIPLIER ANALYSIS WITH AGGREGATE DEMAND

Keynes' concept of investment multiplier explains that a small increment in autonomous investment can lead to a multiple expansion of income. It is interesting to know how the investment multiplier (K) works or operates and brings about a multiple income propagation. In this section, the investment multiplier will be considered in a *static* sense. In case of static investment multiplier, it is assumed that there is no time period or lag between the initial change in investment and the final multiple change in income. In additon it is assumed that there is a change in investment only once. Subsequently, no change in investment take place.

Suppose there is an initial rise in autonomous investment in a country by Rs. 100 crore. This amount is spent on the purchase of machinery or raw materials or labour services. In any case, some group in the community receives an income of Rs. 100 crore. If every group in the country has the marginal propensity to consume (MPC) = 0.50, the given group will spend Rs. 50 crore on consumption. The remaining amount of Rs. 50 crore will be saved by it. The spending by this group will raise the income of another group by Rs. 50 crore. It will spend half of it (Rs. 25 crore) on consumption. The rest of the amount will be saved by it. Thus still another group receives an income of Rs. 25 crore. It will in turn spend half of it (Rs. 12.5 crore) on consumption and Rs. 12.5 crore will be saved. Thus the transmission of income takes place from one group to another until aggregate expenditure income rises by Rs. 200 crore on account of initial increase in investment (ΔI) by Rs. 100 crore because the investment multiplier (K) = 2, when the MPC is 0.50.

$$\Delta Y = K \times \Delta I = 2 \times 100 = \text{Rs. } 200 \text{ crore}$$

The multiple income expansion due to initial