Statics, Dynamics and Comparative Statics

The economic theory is divided into two main branches, viz., economic statics and economic dynamics. These terms were first introduced by August Comte in social sciences. Stuart Mill made use of these concepts in economics. These concepts were further explained by Ragnar Frisch.

**Economic Statics:**
Literally the word ‘static’ implies causing to stand or unchanged. Static position is a position of rest or unchanged position. However, economic statics does not imply absence of movement, rather it denotes a state in which there is a continuous, regular, certain and constant movement without change.

According to Clark, static state is the absence of five kinds of change: the size of population, the supply of capital, the methods of production, the forms of business organisation and the wants of the people.

Harrod is of the view that static analysis is concerned with a state of rest. State of rest does not signify a state of idleness but simply lack of investment with the result that the economy repeats itself over time. Unlike other predecessor economists, he does not confine the concept of statics to a rigidly defined state of affairs. He also includes in it the once-for-all change whereby the economy shifts from one state of rest to another.

Professor Hicks has a somewhat different notion of statics. According to him, economic statics studies stationary situations which are devoid of any change and which do not require any relation to the past or the future. Thus, the static economic of his vision is a timeless economy in which the various phenomena and their effects are analysed without reference to time. For instance, when we say that if price is lowered by 5% demand rises by 3%, we are in the field of static analysis.

According to Frisch, in economic statics we do not study anything about the connection between conditions at various points of time, e.g., sequences, lags, etc. The ordinary theory of demand and supply is an illustration of the static analysis. It builds up a relationship between demand and supply as they are supposed to be at any moment of time.

The economic statics is based on the concept of a stationary state where everything churns steadily like a gramophone repeating itself endlessly. It is an economic process which goes on at an even rate or which merely reproduces itself. The tastes, resources and technology, etc, are not supposed to change over time. The factors which control production, distribution, exchange and consumption are assumed to be constant, yet there is movement, though at a uniform rate.
Economic Dynamics:
The word ‘dynamics’ means causing to move. In economics, the term ‘dynamics’ refers to the study of economic change. It aims to trace and study the behaviour of variables through time, and determine whether these variables tend to move towards equilibrium.

According to Harrod, economic dynamics is chiefly concerned with continuing change, and therefore, necessitates the study of an economy wherein the rate of change of income (output) is itself changing. The continuing acceleration and deceleration is the essence of Harrodian Dynamics. His point can be further illustrated with the help of following diagram:

The diagram illustrates the progression from point A to B, where the rate of growth is zero. The study of the economy from point A to B, according to Harrod, is static. With the push up of the economy, the income level rises from B to C at the time interval O_t1. According to Harrod, the dotted path between B and C is the subject matter of economic dynamics because, during this interval, the rate of change of income is itself undergoing a change. The rate of growth again becomes zero and analysis of the economy becomes static when moving from point C to D.

Ragnar Frisch has broadened the vistas of economic dynamics. According to him, economic dynamics is the process of change, and should embody functional relationships of variables with different dates appended to them. Frish’s definition of economic dynamics takes care of the past values of the several variables, their lags, sequences, rates of change and cumulative magnitudes, etc.

Samuelson’s definition of economic dynamics states that the essence of dynamics that economic variables at different points of time are functionally related including velocities, acceleration, or higher derivatives. His definition of economic dynamics includes the phenomena of cyclical growth, cyclical fluctuations, speculation, cob-web theorems of price determinations, stagnation thesis, perspective planning, etc.
**Comparative Statics:**
Comparative statics is a cross of statics and dynamics. In comparative statics, we study the change from one equilibrium position to another as a result of changes in parameters. It helps us to know the direction and magnitude of changes in the variable when certain date change, so as to cause a movement to a new equilibrium position. Professor J.M. Keynes based his technique of shifting equilibrium on comparative statics. The Keynesian model predicts that an upward shift in the investment function with cause a rise in the level of income, a rise in the level of saving, and a rise in the rate of interest. At original level of income, investment exceeds saving. Equilibrium is restored by the rise in saving resulting from the rise of income, and by the fall in investment resulting from the rise in interest rates. Similarly, the Keynesian theory predicts that a fall in the transactions demand for cash will cause a rise in income, a fall in interest rates and a rise in saving and investment. Also, a downward revision in expectations about the future interest rates will lower the rate, rise income and raise saving and investment. Such are the shifts that Keynes studies with the aid of comparative statics.