***What is capital output ratio ?***

Capital output ratio is the amount of capital needed to produce one unit of output. For example, suppose that investment in an economy, investment is 32% (of GDP), and the economic growth corresponding to this level of investment is 8%. ... In other words, to produce one unit of output, 4 unit of capital is needed.

Further Capital output ratio influenced by the several variables, e.g. technological improvements, better utilization of equipment, organizational improvement, labour efficiency and these factors elude quantitative measurement. Hence, concept of capital output ratio has only a limited practical significance because it can not indicate the actual contribution of capital alone in a given scheme of investment.

***Types-***

The capital output ratio is of two types: the average capital output ratio and the marginal or the incremental capital output ratio.

***What is Capital Output Ratio? What is its significance in macroeconomic management?***

A frequently used tool that explain the relationship between the level of investment made in the economy and the consequent increase in GDP is capital output ratio. The concept of capital output ratio expresses the relationship between the value of capital invested and the value of output. Capital output ratio is the amount of capital needed to produce one unit of output. For example, suppose that investment in an economy, investment is 32% (of GDP), and the economic growth corresponding to this level of investment is 8%.

Here, a Rs 32 investment produces an output of Rs 8. Capital output ratio is 32/8 or 4. In other words, to produce one unit of output, 4 unit of capital is needed. But don’t forget that the Rs 32 invested in the form of machineries will remain there for around ten or twelve years. Such a machinery will be giving Rs 1 output in every year.

**What is the relevance of capital output ratio in economic planning?**

Capital output ratio has very good use in economic planning. Suppose the government targets an economic growth of 9% for next year. planners know that the capital output ratio in India is 4. Here, to realize 9% growth, investment should be increased to 36% (9 x4). Capital output ratio thus explain the relationship between level of investment and the corresponding economic growth. There is a simple equation in economics that shows the relationship between investment, capital output ratio and economic growth.

 G = S/V

Here, G is economic growth, S is saving as a percentage of GDP and V is capital output ratio.

**What is Incremental Capital Output Ratio (ICOR)?**

Another variant of capital output ratio is Incremental Capital Output Ratio (ICOR). The ICOR indicate additional unit of capital or investment needed to produce an additional unit of output. The utility of ICOR is that with more and more investment, the capital output ratio itself may change and hence the usual capital output ratio will not be useful.

**Lower capital output ratio shows productivity of capital and technological progress**

A lower capital output ratio shows that only low level of investment is needed to produce a given growth rate in the economy. This is considered as a desirable situation. Lower capital output ratio shows that capital is very productive or efficient.

**How efficiency of capital can be achieved?**

It is possible mainly through technological progress. When there is superior technology, capital will be efficient to produce more output and capital output ratio will be lower.

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