

## Quadrant II - Transcript

Welcome to module no.4, Static macroeconomic analysis in the short run and long run of Unit 1 - Introduction. I, Ms.Lizette D'Costa, Assistant Professor in Economics of VVM's Shree Damodar College of Commerce & Economics, Margao, Goa, will take you through this module.

We will be looking at the static macroeconomic analysis in the short run and long run.

And on completion of this e-module, you will be able to understand the reasons behind an economy being static for a certain period of time.

Before we move onto the analysis let us have a brief differentiation between short-run and long run.

When you look at the short run, we know that the number of firms are fixed, whereas in the long run the number of firms are variable. Looking at the quantity of labour, it is variable in the short run, but the quantity of capital and production is fixed because the time period is very less to make certain changes in the amount of capital or production.

In the long run we see that the quantity of Labor and capital and production is variable. Why? Because the time period is long enough to make whatever changes you require. In the short run there is the existence of sunk costs, whereas in the long run we see that the costs are yet to be decided and they can be paid. They can be decided upon and paid because the time frame is long enough. In a macroeconomic analysis, we have two periods that are a short run and long run. Taking one by one in the short run we see the existence of sticky prices or sticky wage. It is a period in which the wages and prices do not respond to changes in economic conditions. Whatever economic conditions may happen, whether it may be a boom, or whether it may be a depression or recession, we see that the prices and wages do not respond immediately. They may respond after a certain period of time. But in the short run they are very sticky. Hence, the adjustment to equilibrium level is very slow. Because of this, it creates sustained periods of shortage or surpluses. We know that equilibrium is a period wherein we have the equality between demand and supply. And if there is no equality, then we have these periods of shortages and surpluses. The economy does not achieve its natural level of employment and its potential output over here in the short run. Ultimately, it becomes an obstacle to full adjustment. In the short run itself, we see that the nominal money wages are sticky in the short run and are very slow in adjustment to unexpected changes in the price level. Price level is never stable. It keeps on changing and therefore we see sometimes there are unexpected changes. You are sure whether the prices are going to increase tomorrow, or it may decrease tomorrow. We are not sure about that situation and here we see that nominal wages are very sticky and they do not respond quickly to such unexpected price changes. In the short run, we will be looking at two theories, the sticky wage theory and the sticky price theory. In the sticky wage theory, first, we will look at the reasons why wages are so sticky. Firstly, we see nominal wages, which are fixed by long term contracts which cannot adjust quickly when price level changes unexpectedly. Whenever we have a relationship between an employer, an employee, when an employee goes to the job market, and if we see that he gets absorbed in a firm and accordingly he will get his wages. A contract usually signed between the two, the employer and employee and due to which the wages are fixed now. These wages are usually fixed for a certain period of time and it is very difficult to suddenly change his wages because of the price level changes. Another reason why sticky wages exists

in the short run is because in industries where formal labor contracts do not prevail, we have implicit agreements about nominal wages between workers and employers. Again, this becomes very difficult to adjust to the price changes. We also have wages which depend on social norms on notions of equity, which prevents changes in wages in the short run, we have governments who will keep wages fixed for a certain period. There will be a minimum wage that is applicable in society, so suppose the price changes, wages cannot change abruptly and hence we have the sticky wage theory. Because of this all, we see that the rise in the actual price level in the short run lowers the real wage rate of the workers. In reality the purchasing power of the worker will go down because there is a price rise. And here we see that your wages remain the same. So with the wages that you have, you are now able to purchase a little lesser amount of goods from the market. So the output deviates from the natural level and price level deviates from expected level. Here we see that the lower real wage induces firms to employ more labour, since now labour becomes cheaper. The wage is at a much lesser level because the price level has increased, but wages have not increased and therefore we see that the employer is willing to employ more labourers at this lower wage. Increase in labour employment will lead to increasing aggregate output or the real GDP. Because now since we see the employers are employing more laborers at the cheaper wage. And because now since there are more hands at work, output will definitely increase.

The second theory we come across, is the sticky price theory. Here we have price which is sticky. In the earlier theory we were talking about wages, which were sticky. The prices of some goods and services are just very sluggishly in response to changes in economic conditions. Even during this pandemic you can see it has hit the economy in a hard way and there are some prices of goods and services which did not change abruptly or immediately. This new adjustment of price occurs in parts. You will never see an immediate increase in the prices of goods and services as the economy changes, because there are these costs of adjusting the prices, these are basically known as menu costs. Menu costs are the costs that come about with changing prices i.e. as and when prices change. We also see that the prices of particular goods and services, the final goods and services will also change. Why, because maybe the raw material charges have changed, but to change that price there is a cost and this is known as menu cost. It basically comes about from a restaurant business wherein you see where to make a new menu. There will be printing involved, distributing catalogs, time to change the price tag, which takes a lot of time and because of which the employer might not be willing to take up these costs which is basically known as menu cost. For e.g. suppose each firm assumes its price in advance based on the economic condition and it expects to prevail over the coming year. After prices are announced, the economy experiences an unexpected contraction in money supply. This reduces the overall price level in the long run, but some firms reduce their price immediately. Other firms, like I said earlier, may not want to incur additional menu costs, and these firms result in temporary lagging their prices. They do not reduce their prices immediately. So there is a temporary lag in their reduction of prices, their sales will decline, there will be a cutback on production, and employment in that particular firm. So here we see a condition of sticky price theory.

Next we move on to the long run. The long run is basically considered as a planning horizon. Here the input prices have ample enough time to adjust. There are no fixed costs. Prices and wages are flexible. There is flexibility with regards to the amount of workers the employer can employ as many workers he wants to expand. He can expand his scale of production. He can change the production process. He can move from a small scale to a large scale. Whatever he wants to do, he can do because the time frame is

long enough. Employment moves to its natural level where the real wage rate adjusts. This is a level where the quantity of labour demanded will be equal to the quantity of labour supplied. And when natural employment is achieved, we see that the potential level of output is also achieved, and this is basically the macroeconomic view of achievement of the full market adjustment. So the long run macroeconomic equilibrium occurs when actual GDP is equal to potential GDP on the long run supply curve. Before equilibrium is attained in the long run, there are fluctuations in the short run aggregate supply and aggregate demand that can lead to output gaps where the GDP differs from the potential GDP. The real GDP differs from the potential GDP. When real GDP is greater than potential GDP, we have inflationary gaps and when real GDP is less than potential GDP we have recessionary gaps and to eliminate these gaps we have the expansionary fiscal and monetary policy and a contractionary fiscal and monetary policy. And in the long run, finally the actual GDP of an economy and associated price levels are determined where the aggregate demand curve and the long run aggregate supply curve intersects. It is a point at which the economy's potential output is fully attained by the producers. So please remember this students that the long run macroeconomic equilibrium is attained where the aggregate demand curve is equal to the long run aggregate supply curve.

Thank you.