Lesson 4: Aggregate Demand, Aggregate Supply and Equilibrium: Part 3 (Macroeconomic Changes and Equilibrium)

Aggregate supply (AS)

Aggregate supply (AS) represents the quantities of goods and services that domestic producers are willing and able to supply at various price levels.

The very short run is defined as the time period over which companies can only change output levels to a limited extent without changing price.

- If demand increases, companies will increase output (to earn higher profits) and run their operations more intensively as long as they are able to cover their variable costs.
- If demand falls, companies will decrease output and run their operations less intensively. They may also carry out efficiency-enhancing projects that were postponed during busier periods.

The short run is defined as the time period over which some more costs become variable. However, wages and prices of other inputs remain constant in the short run.

- Therefore, as prices increase (with no corresponding increase in input prices) companies can increase profits by raising output.

The long run is defined as the time period over which wages and prices of other inputs are also variable.

- As prices increase over the long-run, wages and other input prices also increase proportionately, so the higher price level has no effect on quantity supplied.
- Note that in the long run, wages, prices and expectations can adjust but capital and technology remain fixed. This condition is relaxed in the very long run.

The point of intersection of the AD curve and the LRAS curve defines the economy's long run equilibrium position.

- At this point, actual real GDP equals potential GDP.

The point of intersection of the AD curve and the SRAS curve defines the economy's short run equilibrium position.

- Short-run fluctuations in equilibrium real GDP may occur due to shifts in either or both the AD and SRAS curves.
- Short run equilibrium may be established at, below or above potential output.
- Deviations of short run equilibrium from potential output result in business cycles.

In an expansion, real GDP is increasing, the unemployment rate is falling and capacity utilization is rising. Further, inflation tends to rise during an expansion.

In a contraction, real GDP is decreasing, the unemployment rate is rising and capacity utilization is falling. Further, inflation tends to fall during a contraction.

Shifts in Aggregate Demand

Changes in the price level result in movements along the AD curve. Shifts in the AD curve may be caused by changes in:

- Household wealth
- Consumer and business confidence
- Capacity utilization
- Fiscal policy
- Monetary policy
- Exchange rate
- Growth in the global economy

Interest Rates and Aggregate Demand

- If the increase in aggregate demand is caused by an increase in money supply, interest rates fall.
- If the increase in aggregate demand is caused by any other factor mentioned above, interest rates will rise.

Shifts in Short Run Aggregate Supply

Changes in the price level result in movements along the SRAS curve. Shifts in the SRAS curve may be caused by changes in:

- Nominal (money) wages

The impact of labor costs on SRAS can be measured by calculating the change in unit labor cost.

% Change in unit labor cost = %Change in nominal wages – %Change in productivity

- Input prices
- Expectations about future prices
- Business taxes and subsidies
- The exchange rate

Important: The SRAS curve will also shift if the LRAS curve shifts.

Shifts in Long Run Aggregate Supply

Long run aggregate supply equals the economy's potential output. Therefore, a change in any factor that has an impact on the resource base of an economy will cause a shift in LRAS (and SRAS), including:

- Supply of labor (and quality of labor or human capital)
- Supply of natural resources
- Supply of physical capital
- Labor productivity and technology

Short Run Equilibrium

Short run macroeconomic equilibrium is established at the point where aggregate demand equals short-run aggregate supply.

Long-Run Full Employment Equilibrium

Long run full employment equilibrium is achieved when the intersection of the aggregate demand curve and the short run aggregate supply curve occurs at a point on the long run aggregate supply curve.

- At this point, actual real GDP equals potential GDP or full employment GDP.
- Note that unemployment equals the natural rate (does not equal 0).

Note:

- Observations of real GDP cannot be used to estimate potential GDP with precision.
- Estimates of potential GDP based on production capacity estimates of all the economy's available resources tend to be inaccurate.

Economists are more confident in estimating the long-run growth rate in potential GDP.

Business Cycles

Business cycles occur when the economy deviates from full employment.

- Deflationary Gap
- Inflationary Gap

Inflationary Gap

Inflationary Gap

Investment Applications of an Increase in AD Resulting in an Inflationary Gap

If economic data suggest that the economy is undergoing an expansion caused by an increase in AD, going forward:

- Corporate profits will be expected to rise.
- Commodity prices will be expected to increase.
- Interest rates will be expected to rise.
- Inflationary pressures will build in the economy.

Therefore, investors should:

- Increase investments in cyclical companies as their earnings would rise significantly in this scenario.
- Increase investments in commodities and/or commodity oriented companies.
- Reduce investments in defensive companies as their profits would not rise as significantly as those of cyclical companies.
- Reduce investments in fixed-income securities (especially those with longer maturities) as their values would fall when interest rates go up.
- Increase investments in junk bonds as default risk (already factored into their prices) should fall in an expansion (and result in an increase in their prices).

Deflationary Gap

Deflationary Gap

Investment Applications of a Decrease in AD Resulting in a Deflationary Gap

If economic data suggest that the economy is undergoing a recession caused by a decrease in AD, going forward:

- Corporate profits will be expected to fall.
- Commodity prices will be expected to decline.
- Interest rates will be expected to fall.
- Demand for credit will decrease.

Therefore, investors should:

- Reduce investments in cyclical companies.
- Reduce investments in commodities and/or commodity oriented companies.
- Increase investments in defensive companies as their profits would decline modestly compared to cyclical companies.
- Increase investments in investment-grade or government-issued fixed-income securities as their values (particularly of those with longer maturities) will rise if interest rates go down.
- Decrease investments in junk bonds as default risk should rise in a recession (and result in a decrease in their prices).

Stagflation

Shifts in the SRAS curve (due to any of the factors discussed earlier in the reading) cause structural fluctuations in real GDP.

- A decrease in SRAS causes stagflation (high unemployment and higher inflation).
- An increase in SRAS brings about economic growth and low inflation.

Stagflation

Investment Applications of a Shift in SRAS

If the SRAS curve shifts to the left (SRAS declines), investors may want to:

- Reduce investments in fixed-income securities because increasing output prices (inflation) may put an upward pressure on nominal interest rates (which would decrease the value of fixed income instruments).
- Reduce exposure to equities in anticipation of a decline in output and profit margins coming under pressure.
- Increase investments in commodities and/or commodity-oriented companies because their prices and profits are likely to rise (due to higher prices).