

|                  |                                   |   |   |
|------------------|-----------------------------------|---|---|
| <b>ECONOMICS</b> | Budget Surplus or Deficit         | Budget Surplus or Deficit = $G - T + B$   | <p>G – Government spending</p> <p>T – Taxes</p> <p>B – Payment of transfer of benefits</p>  |
|                  | Disposable Income (YD)            | $YD = Y - NT = (1 - t)Y$  | <p>Y – National income or output</p> <p>NT – Net taxes</p> <p>t – Net tax rate</p>  |
|                  | Fiscal Multiplier                 | Fiscal Multiplier = $\frac{1}{1 - MPC(1 - t)}$                                    | <p>MPC – Marginal Propensity to Consume</p> <p>t – Net tax rate</p>   |
|                  | Marginal Propensity to save (MPS) | $MPS = 1 - MPC$   | MPC – Marginal Propensity to Consume  |
|                  | Real Exchange Rate                | Real Exchange Rate <sub>d/f</sub> = $S_{d/f} \times \left(\frac{P_f}{P_d}\right)$ | <p>P<sub>f</sub> – Foreign price level quoted in terms of the foreign currency</p> <p>P<sub>D</sub> – Domestic price level quoted in terms of the domestic currency</p> <p>S<sub>d/f</sub> – Spot exchange rate quoted in terms of the number of units of domestic currency per one unit of foreign</p> |

|  |  |  |  |
|--|--|--|--|
|  |  |  | currency   |
|  | Percentage Change in Real Exchange Rate                    | $\left(1 + \frac{\Delta S_{d/f}}{S_{d/f}}\right) \times \frac{\left(1 + \frac{\Delta P_f}{P_f}\right)}{\left(1 + \frac{\Delta P_d}{P_d}\right)}$ | <p><math>\Delta P_f</math> – Change in foreign price level quoted in terms of the foreign currency</p> <p><math>\Delta P_d</math> – Change in domestic price level quoted in terms of the domestic currency</p> <p><math>\Delta S_{d/f}</math> – Change in spot exchange rate quoted in terms of the number of units of domestic currency per one unit of foreign currency</p> |
|  | Relationship between trade balance and expenditure/savings | $(S - I) = (G - T) + (X - M)$  | <p><math>S - I</math> – Excess of private saving over domestic investment</p> <p><math>(G - T)</math> – Fiscal Balance</p> <p><math>(X - M)</math> – Trade Balance</p>   |
|  | Cross Rates  | $\frac{X}{Y} \times \frac{Y}{Z} = \frac{X}{Z}$   | X, Y, Z – Variables representing nominal exchange rates  |

|  |   |   |   |
|--|---|---|---|
|  | Forward Rate<br>( $F_{f/d}$ ) Calculation   | $F_{f/d} = S_{f/d} \times \left( \frac{1 + r_f}{1 + r_d} \right)$           | $F_{f/d}$ – Forward rate<br>$S_{f/d}$ – Spot rate<br>$i_f$ – Foreign interest rate<br>$i_d$ – Domestic interest rate                                |
|  | Forward Rate<br>( $F_{f/d}$ ) Calculation<br>incorporating<br>fractional period<br>( $\tau$ ) | $F_{f/d} = S_{f/d} \times \left( \frac{1 + r_f \tau}{1 + r_d \tau} \right)$ | $\tau$ – Investment horizon<br>$F_{f/d}$ – Forward rate<br>$S_{f/d}$ – Spot rate<br>$i_f$ – Foreign interest rate<br>$i_d$ – Domestic interest rate |
|  | Forward Discount<br>or Premiums   | $F_{f/d} - S_{f/d} = \left( \frac{r_f - r_d}{1 + r_d \tau} \right) \tau$    | $\tau$ – Investment horizon<br>$F_{f/d}$ – Forward rate<br>$S_{f/d}$ – Spot rate<br>$i_f$ – Foreign interest rate<br>$i_d$ – Domestic interest rate |