

## Formula Cards

$Y = C + I_g + G + X_n$	The expenditure approach to measuring GDP correlates well with aggregate demand (AD)
$GDP = W + I + R + P + \text{Corp. Profits} + \text{Indirect Taxes} + \text{Depreciation} + \text{Statistical Adjustments}$	The income approach to measuring GDP correlates well with aggregate supply
Price Index in a given year	Price Index in a given year = Price of market basket in specific year / Price of same market basket in base year x 100
Real GDP	Nominal GDP / GDP Deflator x 100
Real Interest Rate	Nominal interest rate - inflation rate = Real Interest rate
Unemployment Rate	Unemployment Rate (Number of unemployed / Number in the labor force) x 100. The labor force includes all non-institutionalized people of working age who are employed or seeking employment.
Labor Force Participation Rate	Labor Force Participation Rate = Labor force / Adult population x 100
Okun's Law	$(\text{Unemployment rate} - \text{NRU})^2 = \text{GDP Gap}$
Money Multiplier	Excess Reserves x $1/r_r = \Delta M1$
Quantity Theory Of Money	$MV = PQ = Y$ . A monetarist's view that explains how changes in the money supply (M) will affect the price level (P) and/or real output assuming the velocity of money (V) is fixed in the short run.
Velocity	$V = \text{Nominal GDP} / M1$
$MPC + MPS = 1$	$MPC + MPS = 1$ The fraction of an increase in disposable income that is spent (MPC) plus the fraction that is saved (MPS) must equal 1.
Spending Multiplier	$k = 1 / (1 - MPC) = 1 / MPS$ $\Delta G \times k = \Delta Y$
Tax Multiplier	$t = -MPC / MPS = -MPC / (1 - MPC)$ $\Delta T \times t = \Delta Y$
Balanced Budget Multiplier	$\Delta G \times 1$