

Macroeconomics (ECO2013)

Formula Sheet

Symbols	Formulas
Y = GDP	$Y = C + I + G + NX$
C = Consumption	CLF = Employed + Unemployed
I = Investment	Labor Force Participation Rate
G = Government Expenses	$= \frac{CLF}{Population}$
NX = Net Exports (X - M)	Unemployment Rate = $\frac{Unemployed}{CLF}$
X = Exports	Employe to Population Ratio
M = Imports	$= \frac{Employed}{Population}$
U^f = Frictional Unemployment	$U^* = U^s + U^f$
U^s = Structural Unemployment	$U = U^s + U^f + U^c$
U^c = Cyclical Unemployment	PI = $\frac{\text{cost of bundle in current year}}{\text{cost of bundle in base year}}$
U^* = Natural Unemployment	$\pi = \frac{New\ PI - Old\ PI}{Old\ PI}$
U = Actual Rate of Unemployment	MPC = $\frac{\text{additional consumption}}{\text{additional income}}$
Y^f = Potential Output	$M = \frac{1}{1 - MPC}$
Y = Actual Output = GDP	$MM = \frac{1}{RRR}$
r = Real Interest Rate (i - π)	Equation of Exchange: PY = MV
i = Nominal Interest Rate	$\Delta P + \Delta Y = \Delta M + \Delta V$
π = Inflation Rate	$\Delta P = \Delta M$
PI = Price Index	
MPC = Marginal Propensity to Consume	
M = Expenditure Multiplier	
CLF = Civilian Labor Force	
RRR = Required Reserve Ratio	
MM = Money Multiplier	
M_s = Money Supply	
V = Velocity of Money	
Δ = Change In	

