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APPENDIX B

NOTATION AND DEFINITIONS, CHAPTER THREE

Let O = real output (gross product in 1958 dollars)
 E = employment (persons engaged in production)
 C = total labor compensation
 L = labor input (adjusted for hours and quality)
 Y = gross product in current dollars
 T = total factor input in real terms
 K = capital input
 W = price of a unit of labor input
 P = price of a unit of total factor input
 α = labor's share of output
 β = capital's share of output
 A = a family of productivity measures

$\dot{O}, \dot{E}, \dot{A}$, etc. = annual rates of change of O, E, A , etc.

Subscript i = industry i

a = all industries

g = industry sector

s = service sector

$A_1 = \dot{O} - \dot{E}$ = output per man

$A_2 = \dot{O} - \dot{L}$ = output per unit of labor input

$A_3 = \dot{O} - \dot{T}$ = output per unit of total factor input

$A_4 = \dot{O} - (\alpha\dot{L} + \beta\dot{K})$ = output per unit of labor and capital combined

$$\dot{L}_i - \dot{L}_a = (\dot{C}_i - \dot{W}_i) - (\dot{C}_a - \dot{W}_a). \quad (1)$$

\dot{W}_i assumed to equal \dot{W}_a ; therefore

$$\dot{L}_i - \dot{L}_a = \dot{C}_i - \dot{C}_a.$$

$$\dot{T}_i - \dot{T}_a = (\dot{Y}_i - \dot{P}_i) - (\dot{Y}_a - \dot{P}_a). \quad (2)$$

\dot{P}_i assumed to equal \dot{P}_a ; therefore

$$\dot{T}_i - \dot{T}_a = \dot{Y}_i - \dot{Y}_a.$$

$$\dot{A}_{4g} - \dot{A}_{4s} = (\dot{O}_g - \dot{O}_s) - [\alpha(\dot{L}_g - \dot{L}_s) + \beta(\dot{K}_g - \dot{K}_s)]. \quad (3)$$