ALTERNATIVE MULTIPLIER MODEL:
THE SIMPLE THEORY OF EFFECTIVE DEMAND

In a simple effective demand and employment model, the economy (abstracting from government and foreign trade) may be characterized as:

$$Y = C + I \qquad (1)$$

The effective demand model distinguishes between two types of income, profits (P) and wages (W), such that:

$$Y = W + P \qquad (2)$$

Total wages (the wage bill), W, which is equal to the wage rate (w) times employment (N), are assumed to be entirely consumed. Profits, conversely, will not determine the short-term consumption of capitalists, and so are not part of C. Therefore:

$$C = W = wN \qquad (3)$$

Equation (1) describes expenditures, while equation (2) describes income. Output in the effective demand and employment model is a function of employment (N) and the productivity of labor (1/n). Assuming constant returns to scale:

$$Y = 1/n\,(N) \qquad (4)$$

Thus an increase in employment will lead to a proportionate increase in income, depending on the productivity of labor. This utilization function can be rewritten as:

$$N = nY \qquad (5)$$

Where n is labor per unit output. From this can be derived:

$$wN = wnY \qquad (6)$$

Substituting equation (6) into equation (3) we obtain our consumption function:

$$C = wn(Y) \qquad (7)$$

Thus, the alternative multiplier can be derived:

$$Y = wnY + I \qquad (8)$$

$$Y - wnY = I \qquad (9)$$

$$Y\,(1 - wn) = I \qquad (10)$$

$$Y = 1/(1 - wn)\ (I) \qquad (11)$$

Whereas the standard simple Keynesian multiplier is the reciprocal of the complement of the marginal propensity to consume, $1/(1 - b)$, the alternative multiplier is the reciprocal of the complement of the unit labor cost, $1/ (1 - wn)$, thereby reflecting foremost the level of real wages, labor productivity, and the social relations of production. (Note that $(1 - wn)$ is also the unit mark-up.) It is based on the institutional and structural features of capitalism, and less on any psychological propensities.

The simple Keynesian model has no real category for income; it is simply treated as equal to output and expenditure as an accounting identity. The simple theory of effective demand and employment identifies two categories of income, wages and profits. The simple theory of effective demand model also introduces employment, N, as a direct, central variable. It reveals the relations between the wage rate and employment and—in addition—the structure of employment growth (concentrated in the consumption goods sector following an increase in investment—see the two-sector model).

The alternative model contradicts marginal productivity theory in its demonstration that increasing wages increases employment. The neglect of real wages and distribution is thus shown to be a key weakness of the standard Keynesian model. Nevertheless, the Keynesian model provided the basis of the departure from the neoclassical vision of the system and initiated a thesis of a demand-led system, the root of the alternative model.

<u>Alternative with simple tax rate and government spending</u>

$Y = wn (Y - tY) + I + G$

$Y = wnY - wntY + I + G$

$Y - wnY + wntY = I + G$

$Y (1 - wn + wnt) = I + G$

$Y = 1/(1 - wn + wnt) * (I + G)$

Alternative multiplier with tax rate $= 1/(1 - wn + wnt)$