

Alternative Simple Effective Demand Model: Taxing Wages and Public/Private Balances

Assume a flat income tax that falls on wages, so that:

$$C = (1 - t) W \quad (1)$$

So that:

$$C = (W - tW) \quad (2)$$

Recall that:

$$Y = W + P \quad (3)$$

$$Y = C + I + G \quad (4)$$

Therefore:

$$W + P = C + I + G \quad (5)$$

Substituting (2) into (5):

$$W + P = (W - tW) + I + G \quad (6)$$

This gives:

$$P = I + (G - tW) \quad (7)$$

Meaning that aggregate profits are equal to private investment plus the budget deficit (assuming no foreign trade). Therefore:

- a) The larger (smaller) the deficit, the larger (smaller) are profits.
- b) The lower (higher) the tax on wages, the larger (smaller) are profits.
- c) The larger (smaller) government spending, the larger (smaller) are profits.

From (7):

$$I - P = tW - G \quad (8)$$

Meaning that a public sector surplus implies a private sector deficit.