I. FISCAL POLICY

A. Involves changes in government spending and taxes
   1. shifts AE
   2. relation to Gaps

B. budget and its classifications
   1. discretionary vs. mandated
   2. G vs. transfers
   3. budget > G
   4. $\Delta G$ is like any other $\Delta J$
   5. examples

C. Taxes
   1. lump sum
   2. variable
      a. proportional
      b. progressive
      c. regressive
   3. $\Delta T \rightarrow \Delta Y_d \rightarrow \Delta C$ [and $\Delta I$?] $\rightarrow \Delta AE \rightarrow \Delta Y_e$
   4. examples

II. BALANCED BUDGET MULTIPLIER

A. Introduction
   1. what happens to $Y_e$ when $\Delta G = \Delta T$?
   2. "Balanced" budget because the changes in G and T are equal

B. in our models, $K_{BB} = 1$
   1. $\Delta G$ at full strength:
      
      $\Delta G = g) \rightarrow (\Delta AE = g) \rightarrow (\Delta Y_e = gk)$
      
   2. $\Delta T$ "diluted" by $\Delta S$ as well as $\Delta C$:
      
      $\Delta T = g) \rightarrow (\Delta Y_d = -g) \rightarrow (\Delta C = -gc) \rightarrow (\Delta AE = -gc) \rightarrow (\Delta Y_e = -gck)$
      
   3. combined effect
      
      $\Delta G = \Delta T = g) \rightarrow (\Delta Y_e = [gk - gck]) = [g(1-c)k] = [g(1-c){1/(1-c)}] = g)$
      
   4. so $(\Delta G = \Delta T = g) \rightarrow (\Delta Y_e = g)$, the same amount
C. example

Given: \[ C = 160 + \frac{3}{4} Y_d \quad I = 50 \quad G = 100 \quad T = 80 \]
Compute: \[ C = 100 + \frac{3}{4} Y \quad W = -100 + \frac{1}{4} Y \quad J = 150 \quad AE = 250 + \frac{3}{4} Y \]

By either approach, it is straightforward to compute that \( Y_e = 1000 \) [and that \( k = 4 \)]

Now change both \( G \) and \( T \) by 20:
\[ \Delta G = \Delta T = 20 \text{ so that } G^* = 120 \text{ and } T^* = 100 \]

By itself, \( \Delta G = 20 \rightarrow (\Delta AE = 20) \rightarrow (\Delta Y_e = 20) \rightarrow (\Delta Y_e = 20 k = 20 \times 4 = 80) \)

By itself, \( \Delta T = 20 \rightarrow (\Delta Y_d = -20) \rightarrow (\Delta C = -20) \rightarrow (\Delta Y_e = -20 c = -20 \times \frac{3}{4} = -15) \rightarrow (\Delta AE = -15) \rightarrow (\Delta Y_e = -15 k = -15 \times 4 = -60) \)

So together, \( \Delta Y_e = 80 - 60 = 20 \) which demonstrates that \( \Delta Y_e = \Delta G = \Delta T \) and \( K_{BB} = 1 \)

It is easy to confirm that the [new] \( Y_e^* = 1000 + 20 = 1020 \) by computing the new consumption function [different because taxes changed] as \[ C = 85 + \frac{3}{4} Y \], adding 50 from \( I \) and 120 from \( G^* \) to get the [new] \( AE^* = 255 + \frac{3}{4} Y \) and following the Income – Expenditures Approach

D. commentary on the Balanced Budget Multiplier

1. what is truly remarkable is that \( K_{BB} > 0 \)
   a. size of Government matters
   b. in terms of deficit, \( \Delta G \) and \( \Delta T \) cancel each other out
   c. but they do affect income, output, employment
2. these models ignore any possible "crowding out" of private spending
3. In Aggregate Demand / Aggregate Supply terms
   a. shift AD to the right
   b. in Keynesian region
      i. increase \( Y_e \) with no change in prices
      ii. by definition there is lots of excess capacity in Keynesian region, so no private crowding out
   c. in Intermediate, upward-sloping region
      i. increase \( Y_e \) but prices would rise somewhat
      ii. \( \Delta Y_e \) but prices would rise somewhat
      iii. partial crowding-out
   d. in unrealistic vertical region at capacity
      i. no increase in \( Y_e \) by definition
      ii. total crowding out

III. AUTOMATIC STABILIZERS

A. define
   1. automatic: require no change in law or policy
   2. stabilize: counter-cyclical
B. examples
C. Bracket Creep & Fiscal Drag