Slope

$$Y - Tx + Tr = C + S$$

With Government

$$Y - C - Tx + Tr = S$$

$$Y - (A + MPC \cdot Y) - Tx + Tr = S$$

$$C = A + MPCY$$

$$Y - A - MPCY - Tx + Tr = S$$

$$-A + Y - MPCY - Tx + Tr = S$$

$$- A + (1 - MPC)Y - Tx + Tr = S$$

$$- A - Tx + Tr + (1 - \text{MPC})Y = S$$

$$S = -A - Tx + Tr + (1 - MPC)Y$$

$$\downarrow A = a - MPCTx + MPCTr$$

$$S = -(a - MPC\,Tx + MPC\,Tr) - Tx + Tr + (1 - MPC)Y$$

$$S = -a + MPC \cdot Tx - MPC \cdot Tr - Tx + Tr + (1 - MPC)Y$$

$$S = -a + MPCT_x - T_x - MPCT_r + T_r + (1 - MPC)Y$$

$$S = -a - (1 - MPC)Tx + (1 - MPC)Tr + (1 - MPC)Y$$

Intercept

1-MPC

= MPS

$$S = -a - _{MPS}Tx + _{MPS}Tr + _{MPS}Y$$

With Government

$Y - Tx + Tr = C + S$

$Y - C - Tx + Tr = S$

$$\downarrow C = A + MPCY$$

$Y - (A + MPCY) - Tx + Tr = S$

$Y - A - MPCY - Tx + Tr = S$

$- A + Y - MPCY - Tx + Tr = S$

$- A + (1-MPC)Y - Tx + Tr = S$

$- A - Tx + Tr + (1-MPC)Y = S$

$S = - A - Tx + Tr + (1 - MPC)Y$

$$\downarrow A = a - MPCTx + MPCTr$$

$S = - (a - MPCTx + MPCTr) - Tx + Tr + (1 - MPC)Y$

$S = - a + MPCTx - MPCTr - Tx + Tr + (1 - MPC)Y$

$S = - a + MPCTx - Tx - MPCTr + Tr + (1 - MPC)Y$

$S = - a - (1- MPC)Tx + (1- MPC)Tr + (1 - MPC)Y$

$1-MPC = MPS$

$$S = - a - MPSTx + MPSTr + MPSY$$

$\underbrace{\qquad\qquad\qquad}_{\text{Intercept}} \underbrace{\qquad}_{\text{Slope}}$

With Government