SPQ [01]

[A]

Y = E
Y = C + I
Y = 200 + 0.75 Y + 300
Y = 500 + 0.75 Y
Y – 0.75Y = 500
0.25Y = 500
0.25 0.25

Y = 2,000

Alternatively;

W = J
S = I
- 200 + 0.25Y = 300
0.25Y = 300 + 200
0.25Y = 500
0.25 0.25

Y = 2,000

If, C = 200 + 0.75 Y

S = - a + (1-b) Y

-a = - 200

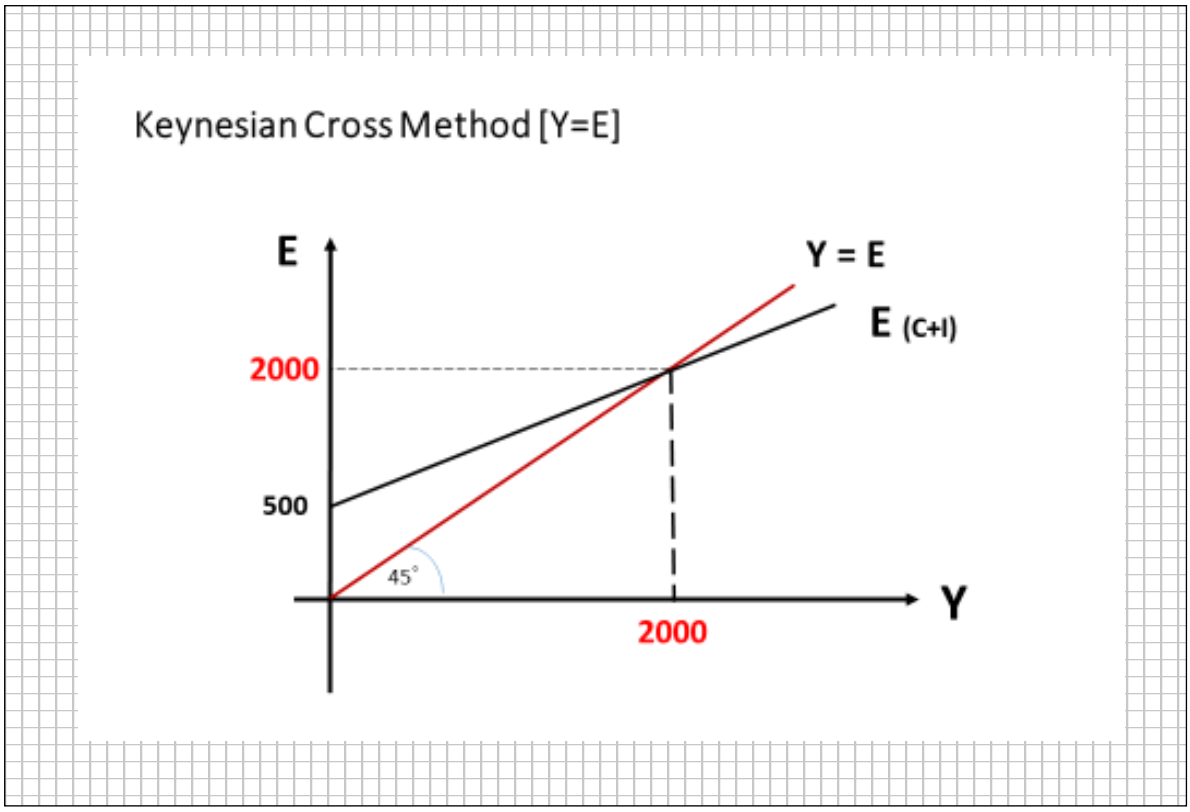
(1-b) = 1 – 0.75

[B] Workings

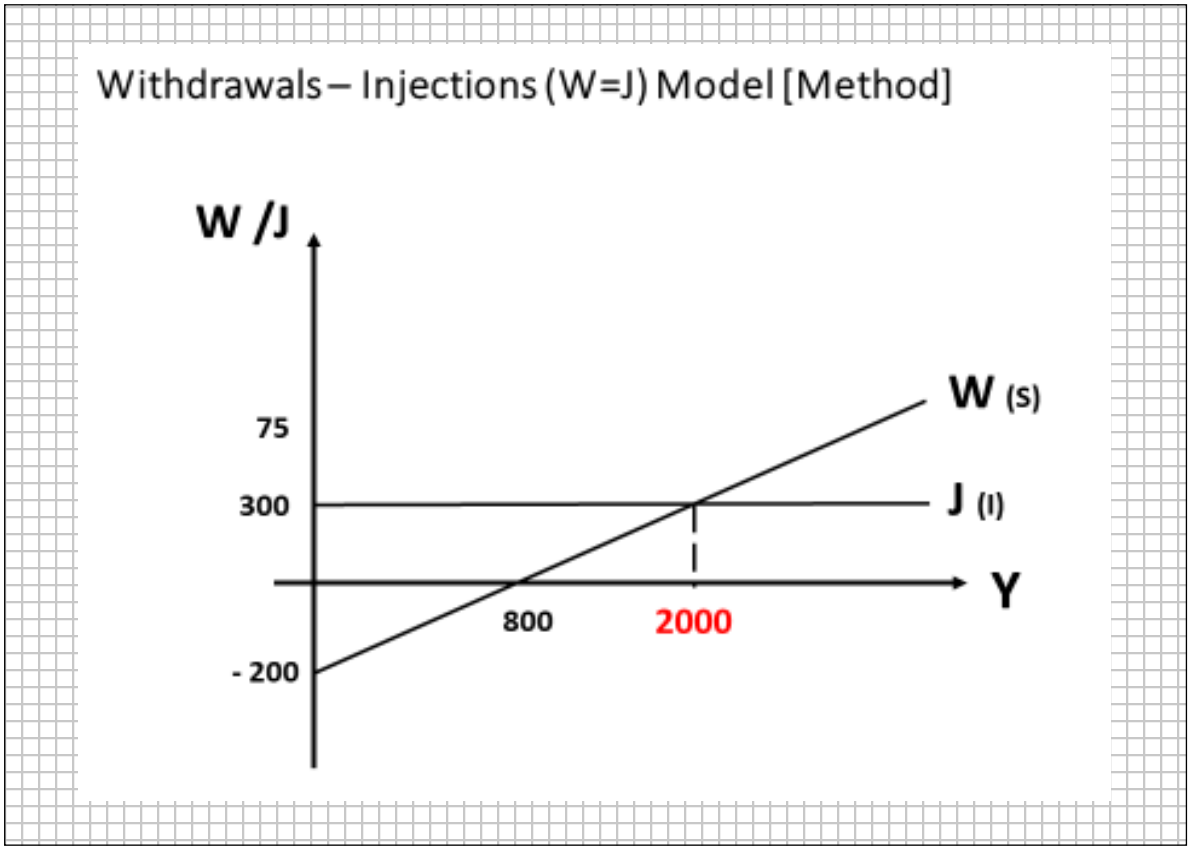
Y	C [200 + 0.75Y]	I	E [C + I]	S [-200 + 0.25Y]
00	200	300	500	-200
1000	950	300	1250	50
2000	1700	300	2000	300
3000	2450	300	2750	550
4000	3200	300	3500	800

General Marks Allocation:

Technically correct diagram, indicating the axis, curves, components pertaining to each function [e.g. E (C+I)], forming the correct numeric value of equilibrium income, will be awarded 04 marks. One of the two methods is sufficient.



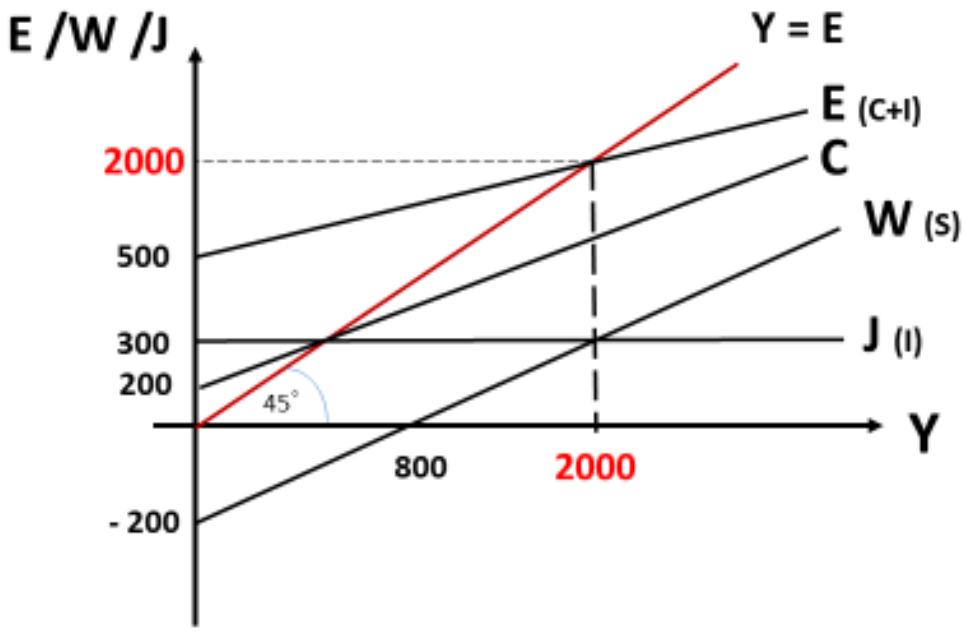
Alternatively;



Additional [for Knowledge purposes]

Combined Approach:

Keynesian Cross (Y=E) - Withdrawals – Injections (W=J) Model



SPQ [02]

(A) **C = 100 + 0.8Y**
C = a + b Y
S = -a + (1-b)Y

-a = -100
(1-b) = 1 – 0.8
= 0.2

S = -100 + 0.2Y

(B)

E (AD)	**=**	**C + I**
E	**=**	**100 + 0.8Y + 200**
E	**=**	**300 + 0.8Y**

(C) **Y = E**

Therefore Y = 300 + 0.8Y

Y – 0.8Y = 300

0.2Y = 300

0.2Y 0.2Y

Y = 1,500

(D) **C = 100 + 0.8Y**

= 100 + (0.8 * 1500)

= 1,300

S = -100 + 0.2Y

= -100 + (0.2 *1500)

= 200

SPQ [03]

(A) Primary effect $\Delta Y_1 = \Delta I$

200

(B) **Aggregate secondary effect** ΔY2 = 500 – 200

= 300

Workings

Multiplier Coefficient **=** 1 ÷ [1 – 0.6]

= **2.5**

Multiplier Application **=** ΔI x K

= 200 x 2.5

= **500**

(C) **Total effect** **=** Primary effect + Secondary effect

= 200 + 300

= **500**

Alternative:

Multiplier Application **=** ΔI x K

= 200 x 2.5

= **500**

SPQ [04]

(A)

	Y	**=**	**E**
Therefore	**Y**	**=**	**C + I + G**
	Y	**=**	**300 + 0.80Yd + 400 + 300**
	Y	**=**	**1000 + 0.80 [Y – T]**
	Y	**=**	**1000 + 0.80 [Y – 250]**
	Y	**=**	**1000 + 0.80Y – 200**
	Y	**=**	**800 + 0.80Y**
Y – 0.80Y		**=**	**800**
0.20Y		**=**	**800**
0.20Y			**0.20**
	Y	**=**	**4,000**

(B)

Y	C* [100 + 0.80Y]	I	G	J [I + G]	E [C + I + G]	S* [-350 + 0.20Y]	T	W [S + T]
00	100	400	300	700	800	- 350	250	-100
2000	1700	400	300	700	2400	50	250	300
4000	3300	400	300	**700**	**4000**	450	250	**700**
6000	4900	400	300	700	5600	850	250	1100

C* [Consumption equation, based on Income (Y)]

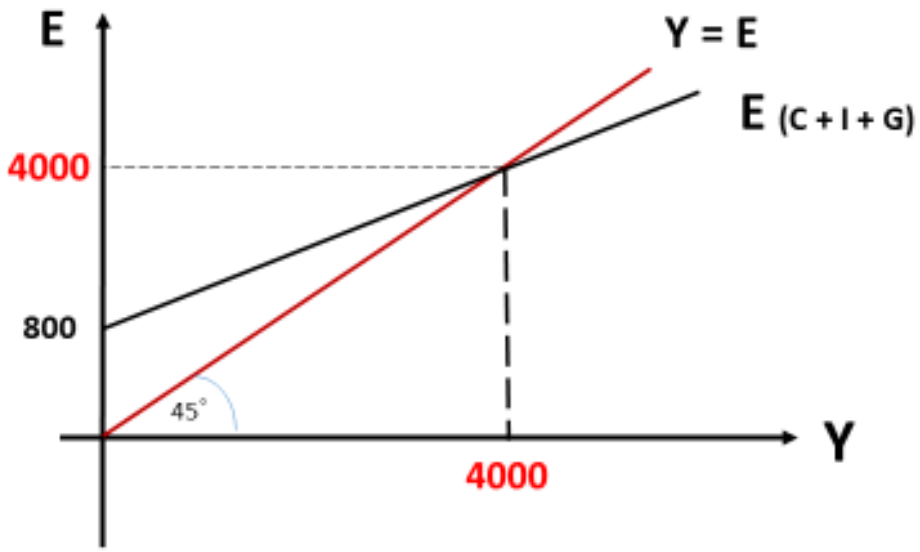
C = 300 + 0.80 Yd
C = 300 + 0.80 [Y – T]
C = 300 + 0.80 [Y – 250]
C = 300 + 0.80 Y – 200
C = 100 + 0.80 Y

S* [Savings equation, based on Income (Y)]

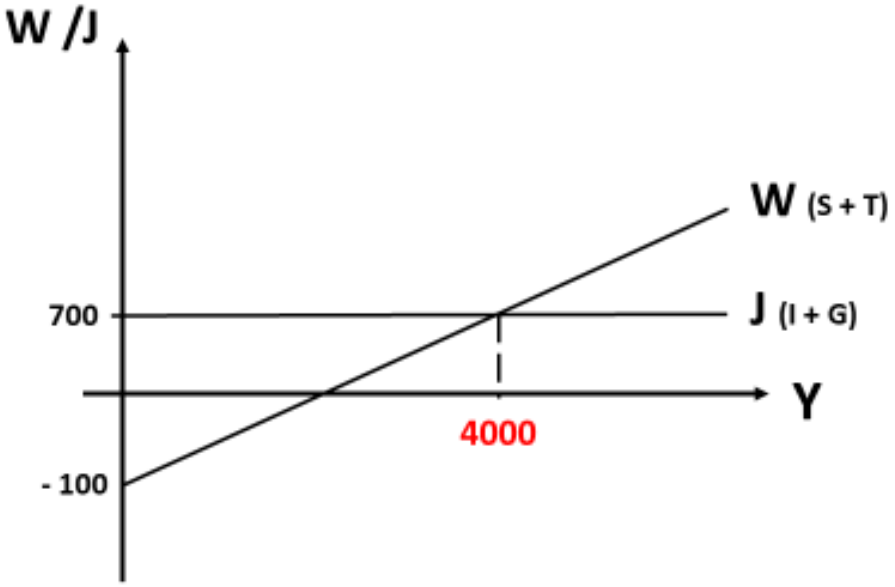
S = - 300 + 0.20 Yd
S = - 300 + 0.20 [Y – T]
S = -300 + 0.20 [Y – 250]
S = - 300 + 0.20 Y – 50
S = - 350 + 0.20 Y

(C)

Keynesian Cross Method [Y=E]



Withdrawals – Injections (W=J) Model [Method]



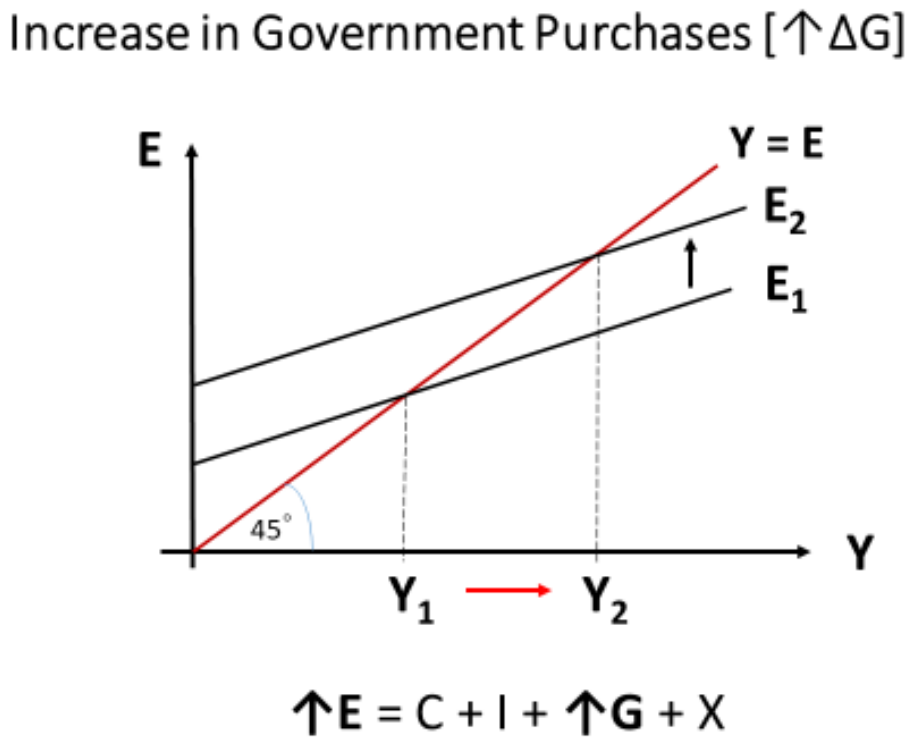
(D) Investment-Savings Gap [at Equilibrium]

= Investment - Savings
= 400 – 450
= -50

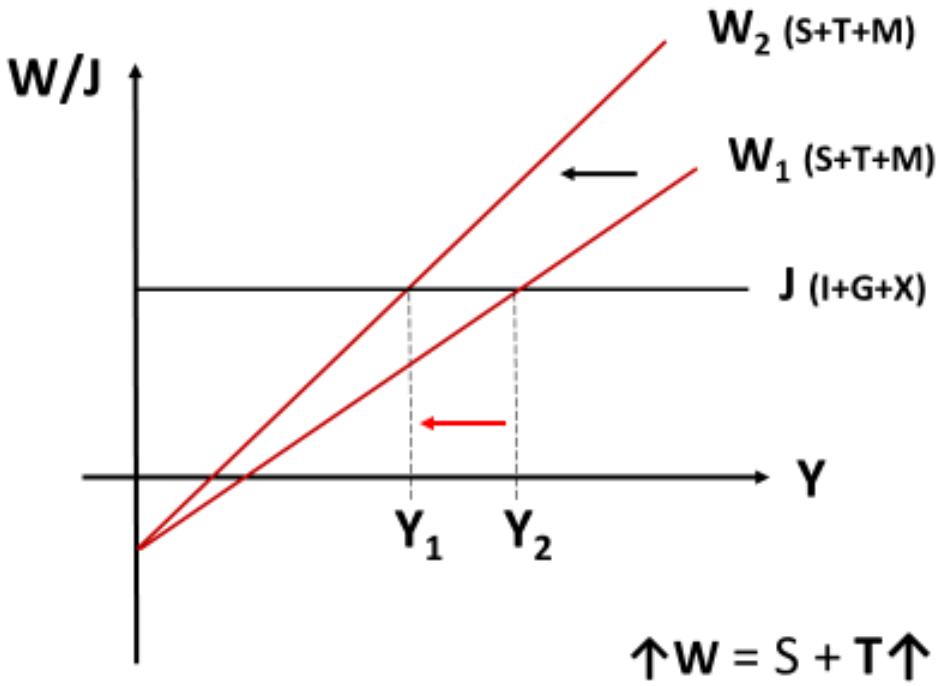
Budget Balance (Gap) [at Equilibrium]

= Tax – Government Purchases
= 250 – 300
= -50

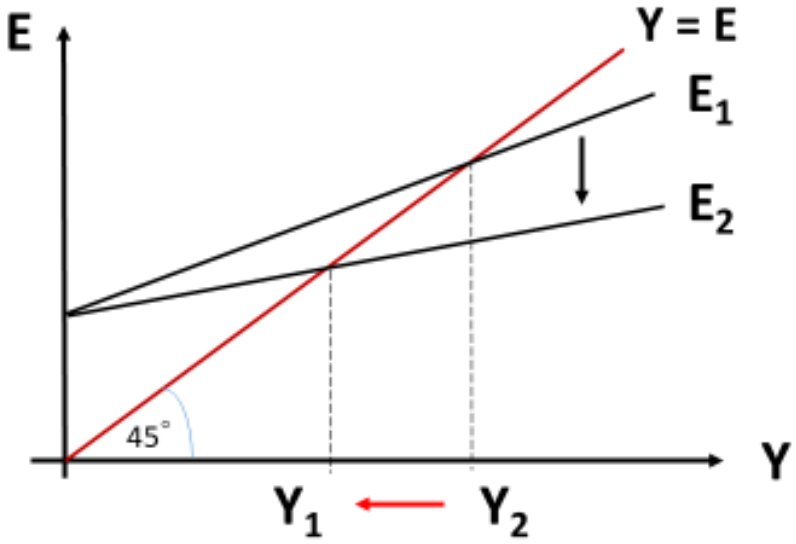
Graphically Illustrating [ΔYe]



Increase in MPT or [T_1]

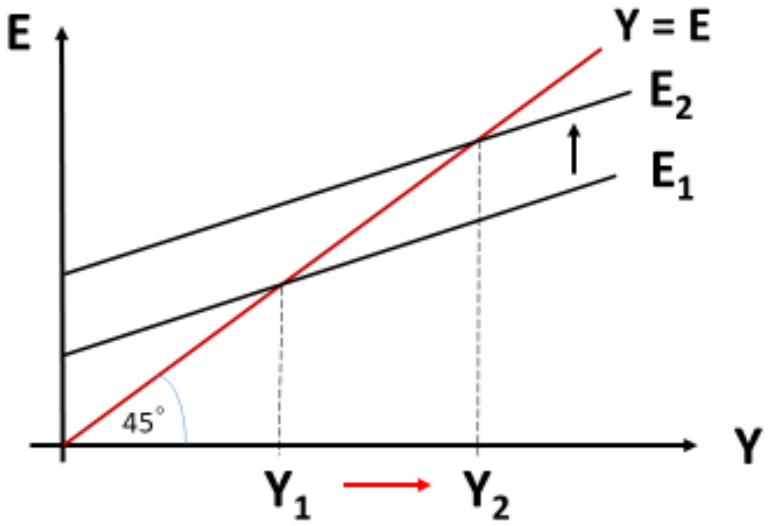


Increase in MPT or [T_1]



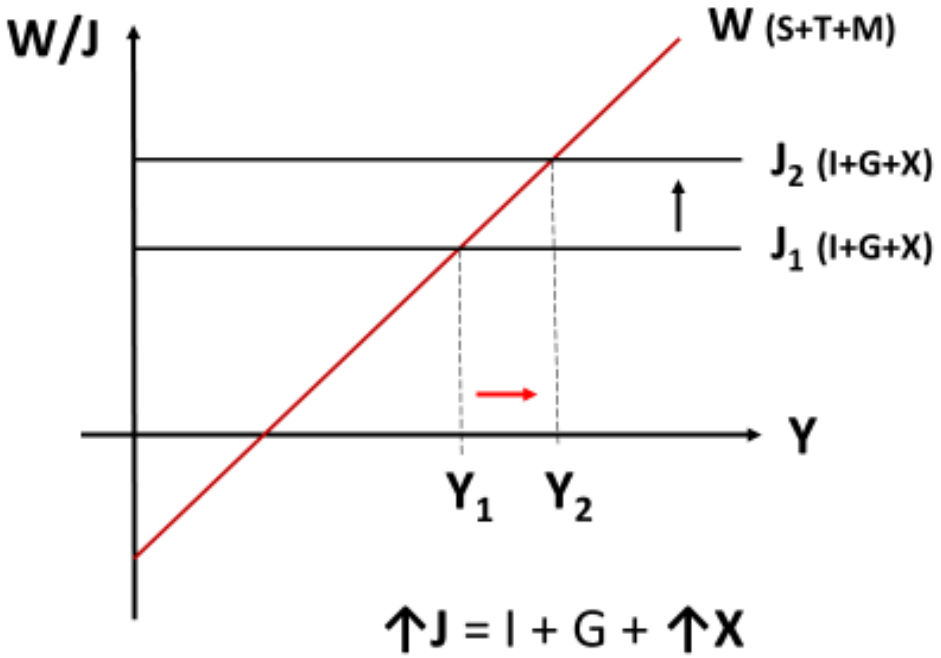
↓E = ↓C + I + G ← [C = f(Yd↓)] ← [Yd = Y – T↑ +TR]

Increase in Exports [X] or Net Exports [NX]



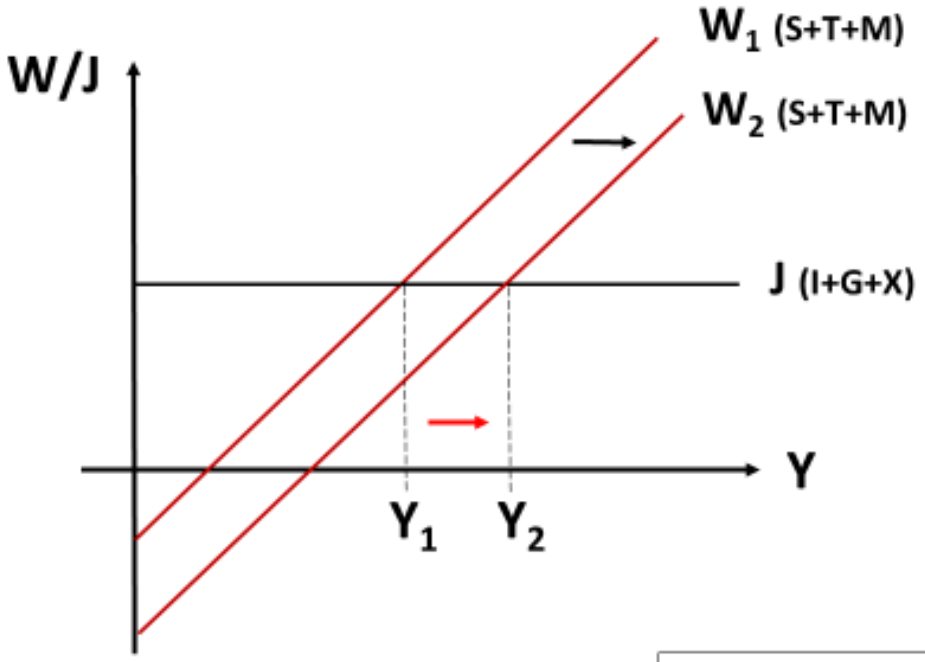
↑**E** = C + I + G + ↑**X** **OR** + ↑**NX** = (↑X – ↓M)

Increase in Exports [X]



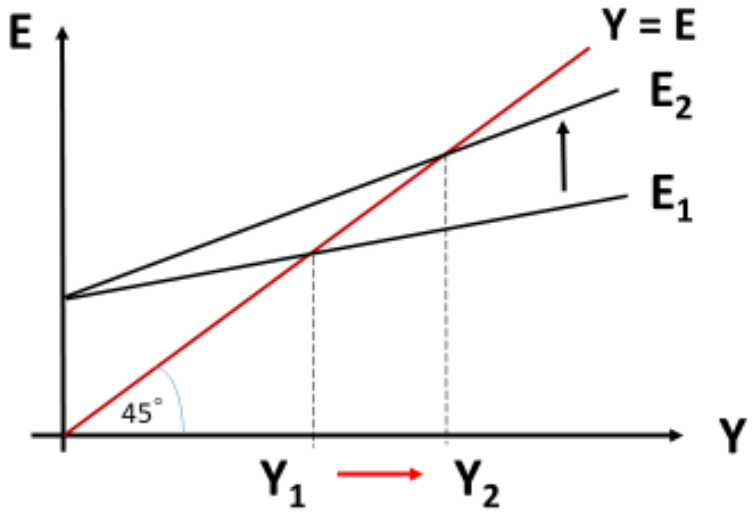
↑**J** = I + G + ↑**X**

Increase in Net Exports [NX]



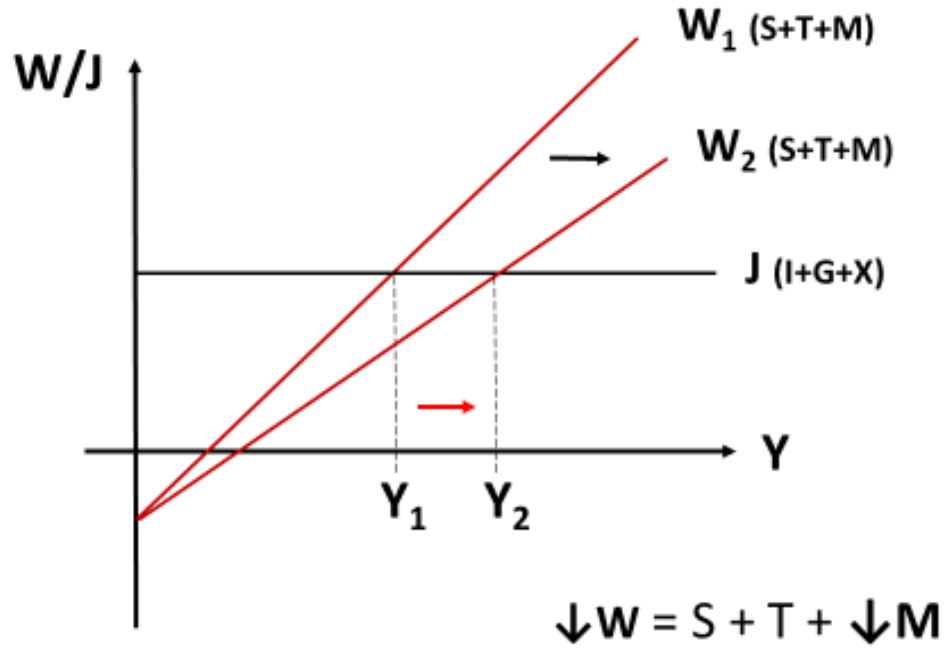
$\downarrow W = S + T + \downarrow M$ ← $\uparrow NX = [X - \downarrow M]$

Decrease in Induced Imports [M_1] or [MPM]



$\uparrow E = C + I + G + \uparrow NX = (X - \downarrow M)$

Decrease in Induced Imports [M_1] or [MPM]



Imports [M] Vs. Net Exports [NX]