12. (35 pts.) **Make America Great Again.** Donald J. Trump's Presidential platform outlines a substantial tax decrease by reducing tax rates for a large majority of Americans. This tax reduction will be off-set by a substantial reduction in government spending. That is Trump's tax plan is deficit neutral.

    a. (7 pts.) Working with our model developed in Chapter 3, carefully explain the impact of Trump's tax plan on investment and the real interest rate—if at all. If not, please carefully explain why not.

Use loanable Funds equilibrium....

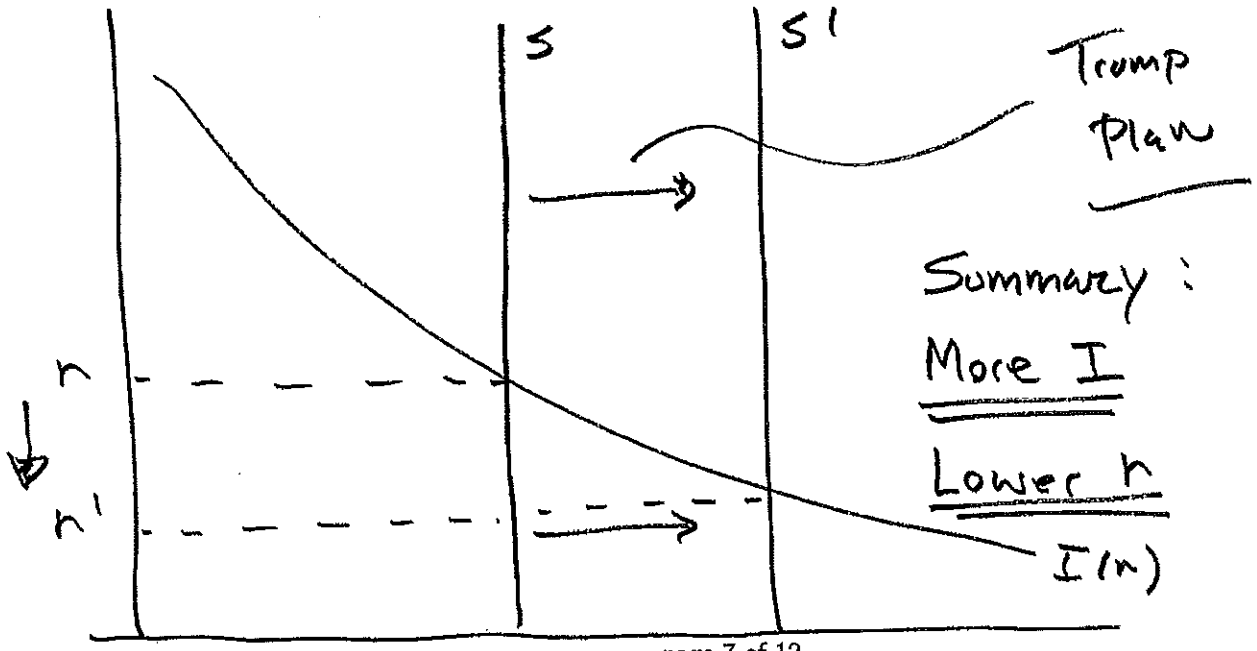
$$\underbrace{Y - T - \overbrace{\beta(Y-T)}^{C}}_{\text{Private Savings}} + \underbrace{(T-G)}_{\text{Public Savings}} = I(r)$$

Private Savings: Increases as Tax burden is alleviated

Public Savings: No Change

Why the reduction in T will be with a reduction in G.

National Savings ↑ = Investment ↑



Summary:

More I

Lower r

b. (7 pts.) Working with our model developed in Chapter 3, carefully explain the impact of Trump's tax plan on real GDP. If not, please carefully explain why not.

No change

$$Y = F(\bar{K}, \bar{L})$$

K is fixed in Short run / Ch. 3

L is fixed in short run / Ch. 3

If K and L are not changing then GDP or Y can not change...

c. (7 pts.) Given your answers in Part **a.** and Part **b.** carefully explain how Trump's tax plan is changing each expenditure component of GDP.

The expenditure side of GDP is this...

$Y = C + I + G$

Trump says this is ↓

Part (a) argued that I ↑

$C = \beta(Y - T)$.

"T" is decreasing, thus Consumption is ↑

So.....

$< \uparrow, I \uparrow, G \downarrow$. Trump's plan causes a reallocation of economic activity away from government and into the private sector.

How to verify that GDP does not change using the expenditure side...

$$C + I + G$$

$$C + \underbrace{(Y - T - B(Y-T) + T - G)}_{\text{This is National savings which = Investment}} + G$$

$$\cancel{B(Y-T)} + \cancel{(Y-T)} - \cancel{B(Y-T)} + \cancel{T} - \cancel{G} + \cancel{G}$$

$$\| \quad \text{Lots of stuff cancells...}$$

$$Y$$

Thus GDP does not change.

e. (7 pts.) Speculate how Trump's plan might effect real GDP in the future (within the boundaries of our class material). Be as clear and specific as possible.

The easiest way is to think about how investment today relates to capital in the future

$$k_{t+1} = (1-\delta)k_t + I_t$$

More Capital in the Future

More Investment

$$GDP = F(K, L)$$

So if we have higher k in future, this means more Y in the future.