The Digital Economist

Introduction to Macroeconomics
Worksheet #5: **The Flow of Funds** Name:_____

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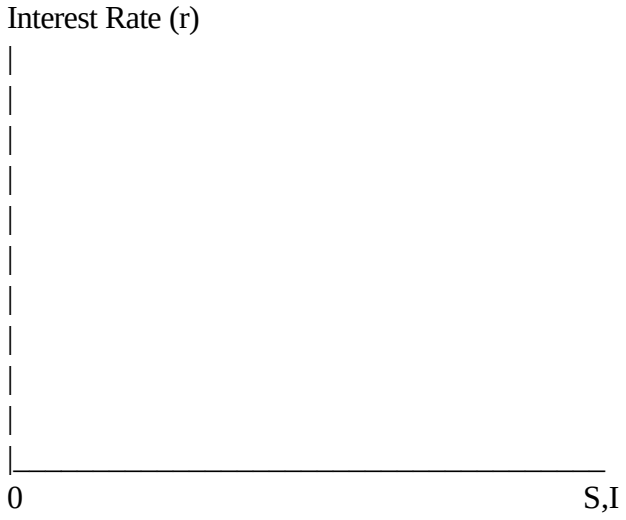
1. Potential Output **'Y*'** for a given economy is $10,000 [i.e., $10 trillion]. Given the following equations:

C = 0.80(**Y*** - T)	-- Consumption Expenditure
T = 0.10**Y***	-- Taxes [*tax rate* = 10%]
G = $2,000	-- Government Expenditure
I = $1,500 – 100(r)	-- Domestic Investment Expenditure [r = *market interest rate*]
NX = $0	-- Net Exports (balanced trade)

a. Calculate the level of Private, Public, and National Savings.

b. At what market interest rate will Domestic Investment be equal to National Savings?

Graph the results of parts 'a-b' in the diagram below:

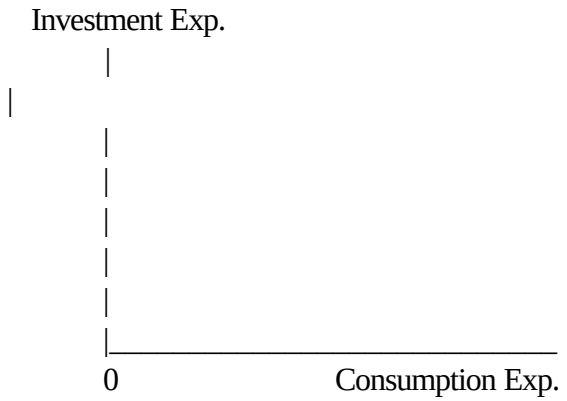


d. Describe how an increase in the tax rate from 10% to 15% will affect Private, Public and National Savings and the level of Net Exports.

2. Given the following:

Y* = $10,000	--	Potential Output (held constant)
C = b(**Y*** - T)	--	Consumption Expenditure [b = Marginal Propensity to Consume]
T = 0.10**Y***	--	Tax Revenue [Tax rate = 10%]
S_{public} = T – G = $0	--	Public Savings [G = T *always*!]
$S_{private}$ = Y*-T – C	--	Private Savings
$S_{national}$ = S_{public} + $S_{private}$		
NX = $0	--	Net Export Expenditure [always in balance]
$I_{domestic}$ = 1000 – 100(r)		Investment Expenditure [r = interest rate]
$I_{domestic}$ = $S_{national}$	--	Assume that the interest rate adjusts such that Domestic Investment Expenditure is always equal to National Savings.

Complete the following table:

MPC	Potential Output	=	Consumption Expenditure	+	Government Expenditure	+	Investment Expenditure	Nat'l Savings	Interest Rate
0.50	$10,000		_____		_____		_____	_____	____
0.55	$10,000		_____		_____		_____	_____	____
0.60	$10,000		_____		_____		_____	_____	____
0.65	$10,000		_____		_____		_____	_____	____
0.70	$10,000		_____		_____		_____	_____	____
0.75	$10,000		_____		_____		_____	_____	____
0.80	$10,000		_____		_____		_____	_____	____
0.85	$10,000		_____		_____		_____	_____	____
0.90	$10,000		_____		_____		_____	_____	____
0.95	$10,000		_____		_____		_____	_____	____
1.00	$10,000		_____		_____		_____	_____	____

and Graph the relationship between *Consumption Expenditure* and *Investment Expenditure* in the diagram to the right: