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Principles of Economics

Study Questions – Model 2

Behold this economy (with fixed prices and interest rate)

$$C = 300 + .9Y_d$$

$$I = 600$$

$$G = 200$$

$$EX = 500$$

$$IM = .2Y$$

$$T = 200$$

- a) Calculate equilibrium values for Y , C , S , the budget deficit, and net exports
- b) Now new President George W. Gore cuts net taxes by 100 (without changing G)
Calculate new equilibrium values for Y , C , S , the budget deficit, and net exports
- c) Illustrate situations a and b on an aggregate expenditures graph.

Answers to Study Questions – Model 2

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c) Illustrate situations a and b on an aggregate expenditures graph.

a)

$$AE = C + I + G + EX - IM$$

$$AE = 300 + .9(Y-200) + 600 + 200 + 500 - .2Y$$

$$AE = 1600 + .9Y - 180 - .2Y$$

$$AE = 1420 + .7Y$$

In equilibrium $AE = Y$

$$1420 + .7Y = Y$$

$$1420 = .3Y$$

$$4733.3333 = Y$$

$$C = 300 + .9(4733.3333 - 200) = 4380$$

$$S = Y - T - C = 4733.3333 - 4380 - 200 = 153.3333$$

$$\text{Budget deficit} = G - T = 200 - 200 = 0$$

$$\text{Net exports} = EX - IM = 500 - .2(4733.3333) = -446.6666$$

b)

$$AE = C + I + G + EX - IM$$

$$AE = 300 + .9(Y-100) + 600 + 200 + 500 - .2Y$$

$$AE = 1600 + .9Y - 90 - .2Y$$

$$AE = 1510 + .7Y$$

In equilibrium $AE = Y$

$$1510 + .7Y = Y$$

$$1510 = .3Y$$

$$5033.3333 = Y$$

$$C = 300 + .9(5033.3333 - 100) = 4740$$

$$S = Y - T - C = 5033.3333 - 4740 - 100 = 193.3333$$

$$\text{Budget deficit} = G - T = 200 - 100 = 100$$

$$\text{Net exports} = EX - IM = 500 - .2(5033.3333) = -506.6666$$

c)

