Problem Set 5

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1 c

2 d

3 a

4 a

5 cu = 0.5 res = 0.3

money multiplier = (0.5 + 1)/(0.5 + 0.3) = 1.875

1000,000 · (1.875) = $1,875,000

6 money multiplier = $\frac{M}{Base} = \frac{50}{25} = 2$

7 c

8 $y = 0$, $p = 0.02$

$i = 0.02 + 0.02 + 0 + 0.5(0.02 - 0.02)$

$i = 0.04$

Fed Funds rate = 4% C

9 res = 0.05 cu = 0

money multiplier = (0 + 1)/(0 + 0.05) = 20

20 * 1000 = $20,000

10 d

11 $p = -0.01$ $y = 4\%$

$i = -0.01 + 0.02 + 0.5(0.04) + 0.5(-0.01 - 0.02)$

$= 0.01 + 0.02 - 0.015$

$= 0.015$

$= 1.5\%$

12 $p = 0.01$ $y = \frac{10,250 - 9650}{10,250} = 0.059$

$i = 0.01 + 0.02 + 0.5(0.059) + 0.5(0.01 - 0.02)$

$= 0.03 + 0.0295 - 0.005$

$= 0.0545$

$= 5.45\%$

13 $V = \frac{\text{nominal GDP}}{\text{nominal money stock}}$

$= \frac{20}{4}$

$= \boxed{5}$

14 $V = 9$ real output $= 18{,}000$ $P = 200$

NGDP $= 18000 * 200 = 3{,}600{,}000$

Nominal money stock $= 400{,}000$

money stock $= 2000$

Money Demand $= \frac{18{,}000}{2000} = \boxed{9}$

15 $V = 4$ real output $= 12{,}000$ NGDP $= 480{,}000$

NMS $= 120{,}000$ $> 1.33 \times 120 = 160$

Increased to 160,000

Price level increases by

$1.333 * 40 = 53.32$

$53.32 - 40 = \boxed{\$13.32}$

16 $r = 4\%$ $p = 3\%$ $nmd = 6\%$

$6\% - 3\% = 3\%$

$x(4\%) = 3\%$

$\boxed{x = \frac{3}{4}}$

a

17 a

18 $\frac{3}{4} \cdot 4 = 3$ $5 - 3 = \boxed{2\%}$

a