ECO2142 B, FALL 2013, MID #1

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120	A	B	C	D	E

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176	A	B	C	D	E
177	A	B	C	D	E
178	A	B	C	D	E
179	A	B	C	D	E
180	A	B	C	D	E

32. If the nominal exchange rate falls 10 percent, the domestic price level rises 4 percent, and the foreign price level rises 6 percent, the real exchange rate will fall:
    A) 0 percent.
    B) 8 percent.
    C) 10 percent.
    D) 12 percent.

$\mathcal{E} = e \cdot \frac{P}{P^*}$

$\%\Delta\mathcal{E} = \%\Delta e + \%\Delta P - \%\Delta P^*$

$-10\% + 4\% - 6\%$

33. If purchasing-power parity holds, then changes in domestic saving will _____ the real exchange rate.
    A) increase
    B) decrease
    C) not change
    D) either increase or decrease

34. If purchasing-power parity held, if a Big Mac costs $2 in the United States, and if 10 Mexican pesos trade for $1 dollar, then a Big Mac in Cancun, Mexico, should cost:
    A) 2 pesos.
    B) 5 pesos.
    C) 10 pesos.
    D) 20 pesos.

$\mathcal{E} = e \cdot \frac{P}{P^*}$

$1 = \frac{10\,\text{₱}}{\$} \cdot \frac{2\,\$}{P^*}$

35. In a small open economy, if the introduction of automatic-teller machines reduces the demand for money, then net exports:
    A) fall and the real exchange rate falls.
    B) fall but the real exchange rate remains unchanged.
    C) remain unchanged but the real exchange rate falls.
    D) and the real exchange rate remain unchanged.

Short-Answer Questions (35 points)
Answer in the space provided

36. *(4 points)* A classical economist wears a T-shirt printed with the slogan "Fast Money Raises My Interest!" Use the quantity theory of money and the Fisher equation to explain the slogan.

Quantity equation : $MV = PY$

(2) $\Rightarrow \%\Delta P = \%\Delta M + \%\Delta V - \%\Delta Y$

$\Rightarrow$ if $V \uparrow$, $\%\Delta P$ (i.e., inflation) $\uparrow$ (a)

From the Fisher equation:

(2) $i = r + \pi$

So, from (a), if $V \uparrow$, $i \uparrow$

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37. **(10 points)** Consider a production function for an economy:

$$Y = 20(L^{0.5}K^{0.4}N^{0.1})$$

where L is labour, K is capital, and N is land. In this economy the factors of production are in fixed supply with $L = 100$, $K = 100$, and $N = 100$.

a) What is the level of output in this country?

(2) $Y = 20 \cdot 100 = 2000$

b) Does this production function exhibit constant returns to scale? Explain.

(2) Yes, This is a Cobb-Douglas production fcn, where $0.5 + 0.4 + 0.1 = 1$

c) What is the real wage of labour?

(2) $\frac{w}{p} = 0.5\frac{Y}{L} = 0.5 \cdot \frac{2000}{100} = 10$

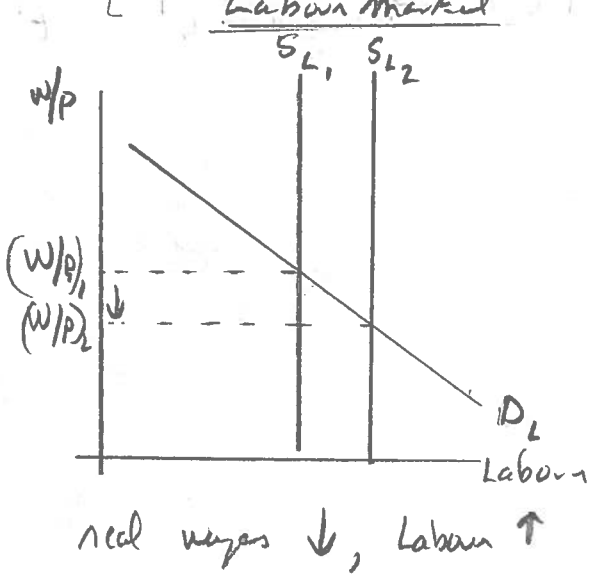
d) What is the real rental price of capital (the amount of output paid per unit of capital)?

(2) $r = 0.4\frac{Y}{K} = 0.4 \cdot 20 = 8$

e) If the economy is competitive, what is the share of total income will go to land?

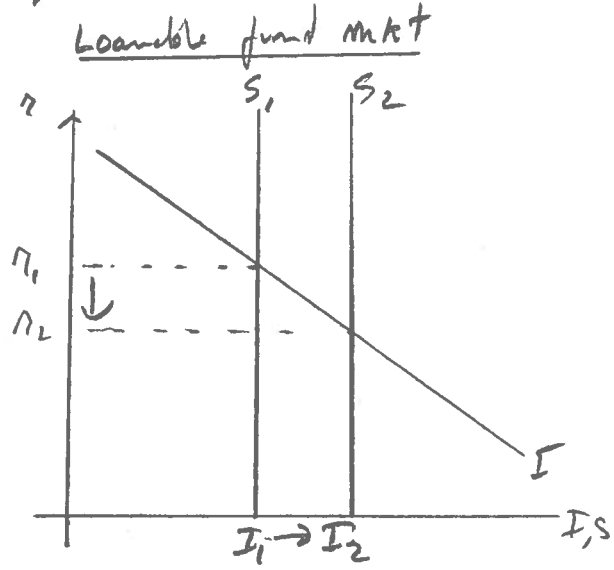
(2) 10%

38. **(8 points)** In ~~an~~ economy with flexible prices, competitive factor markets and fixed supplies of the factors of production, ~~graphically illustrate~~ the impact of a change in immigration policy in a country that permits a huge influx of foreign workers into the labor market, ceteris paribus. Be sure to show how the equilibrium values of output, labour, the real wage, saving, investment, and the real interest rate change.



real wages ↓, Labour ↑

(3)



$\uparrow L \Rightarrow \uparrow Y \Rightarrow \uparrow S$

$\Rightarrow r \downarrow$ and $I \uparrow$

(5)

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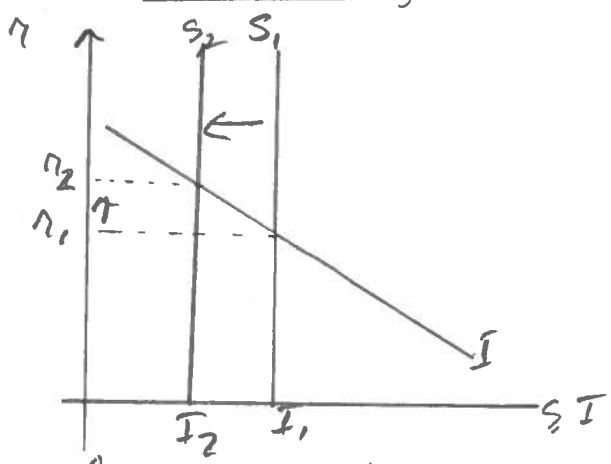
39. **(8 points)** Using graphs, compare the impact of an increase in government spending in a small open economy and a close economy on interest rate and investment. Assume prices are flexible and there is perfect capital mobility in the small open economy. Assume the small open economy's net exports are balanced to start with.

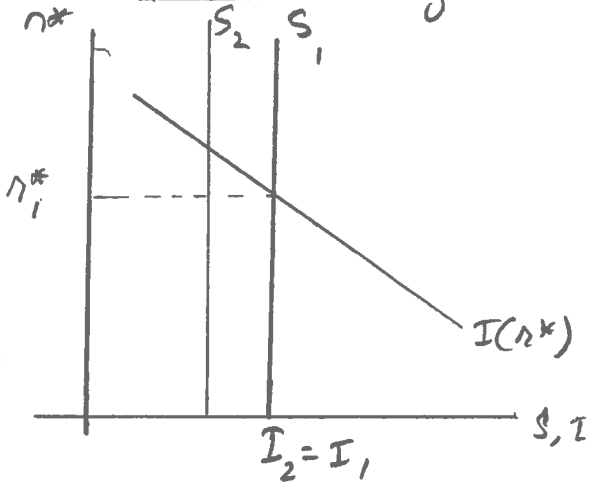
Close economy



S↓, r↑ and I↓

(3)

Open economy



S↓, r and I do not change.

(5)

University of Ottawa **ECO2142 B** Name________________________
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40. **(15 points)** Consider a production function for an economy:

$$Y = L^{0.8}K^{0.2}$$

where L is labour and K is capital. In this economy the factors of production are in fixed supply with $L = 100$ and $K = 100$. Suppose the government imposes a ~~real~~ nominal minimum wage of one ~~unit of output per unit of labour~~ dollar. (Assume that in the absence of this law, ~~real~~ nominal wages ~~were~~ are fully flexible) and that the price level equals one.

a) What is the impact on employment?

at equilibrium: $\frac{W}{P} = 0.8\left(\frac{K}{L}\right)^{0.2}$

$\Rightarrow L = \left(\frac{0.8}{W/P}\right)^5 K$

(4)

$\Rightarrow L_0 = 100$

$L_1 = (0.8)^5 100 = 32.8 = 32$

$\therefore \Delta L = -68$

b) What is the impact on output?

$Y_0 = 100$

(4)

$Y_1 = 32^{0.8} \cdot 100^{0.2} = 40.2$

$\therefore \Delta Y = -59.8$

c) What is the impact on the total amount earned by workers?

at 0, total amount earned by workers = $(.8)(100) = 80$

(4)

1 $= 1 \cdot 32 = 32$

$\therefore$ Δ in total amount earned by workers $= -48$

d) If the Central Bank's objective is full-employment. What do you think it should do? (You do not need to provide figures for this answer)

(3)

Should ↑M to ↑P and reduce real wage