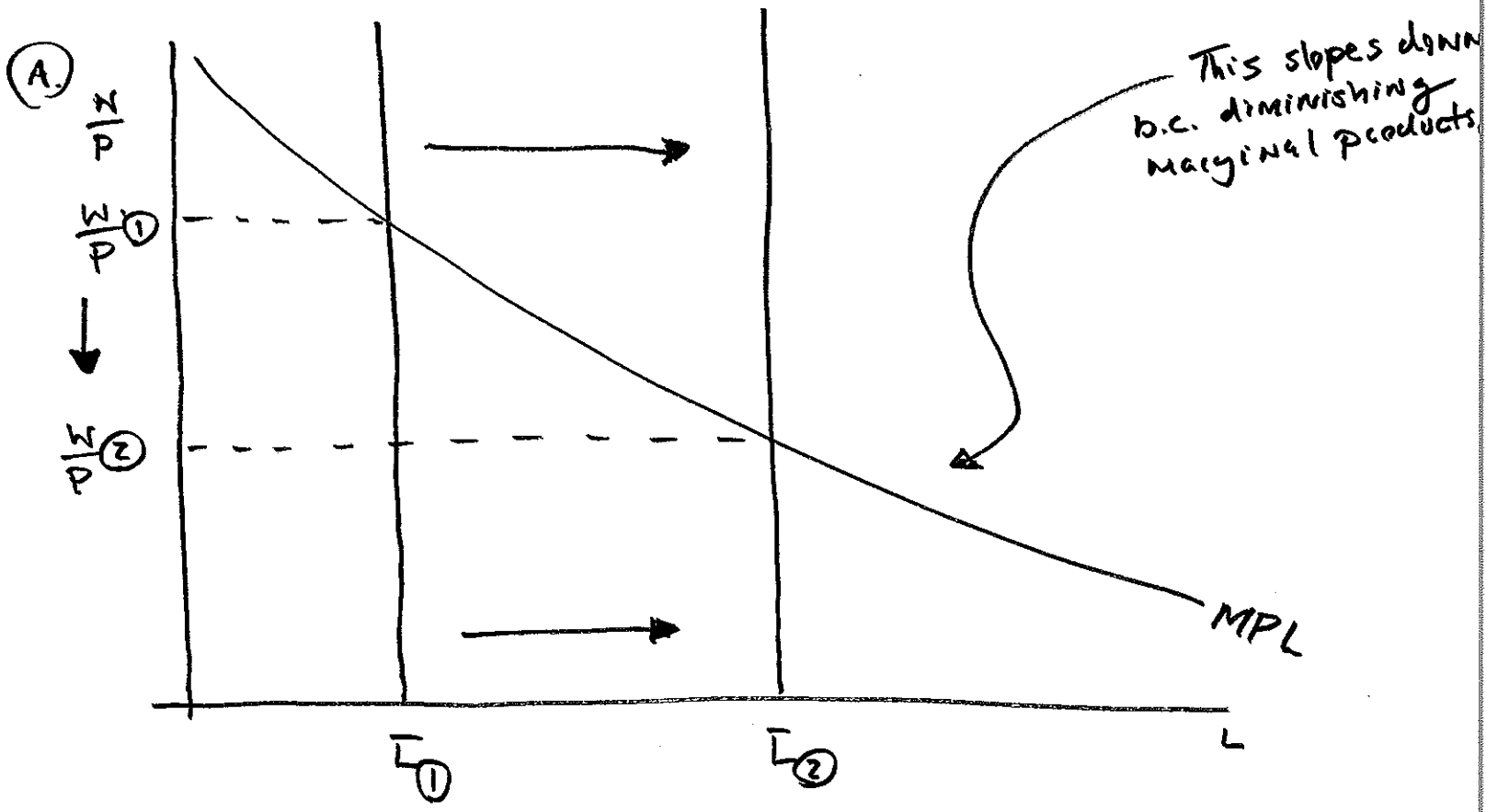
Question #1

Solutions to Inclass
Week of 02/08, 02/10



As the supply of labor increases from $\bar{L}_1$ to $\bar{L}_2$, the real wage declines from $\frac{W}{P}_1$ to $\frac{W}{P}_2$. Simple idea: as the supply of labor increas, the price that labor gets paid (i.e. the real wage) should decrease.

(B) Very simple .... More inputs ⇒ more output. So having more workers will increase output/real gdp.

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

More L ⇒ More Y.

(2c) Ok, so you own K and recieve $\frac{R}{P}$ for it.

Does immigration reform affect you??? Yes! It raises the real rental Rate...

* To see this, recall that $\frac{R}{P} = MPK$ from the firms optimization problem. So to rephase the question, does $L\uparrow$ affect the MPK?

Yes, to see this note that with the Cobb-Douglas production function we have...

$$MPK = \alpha \frac{Y}{K}$$

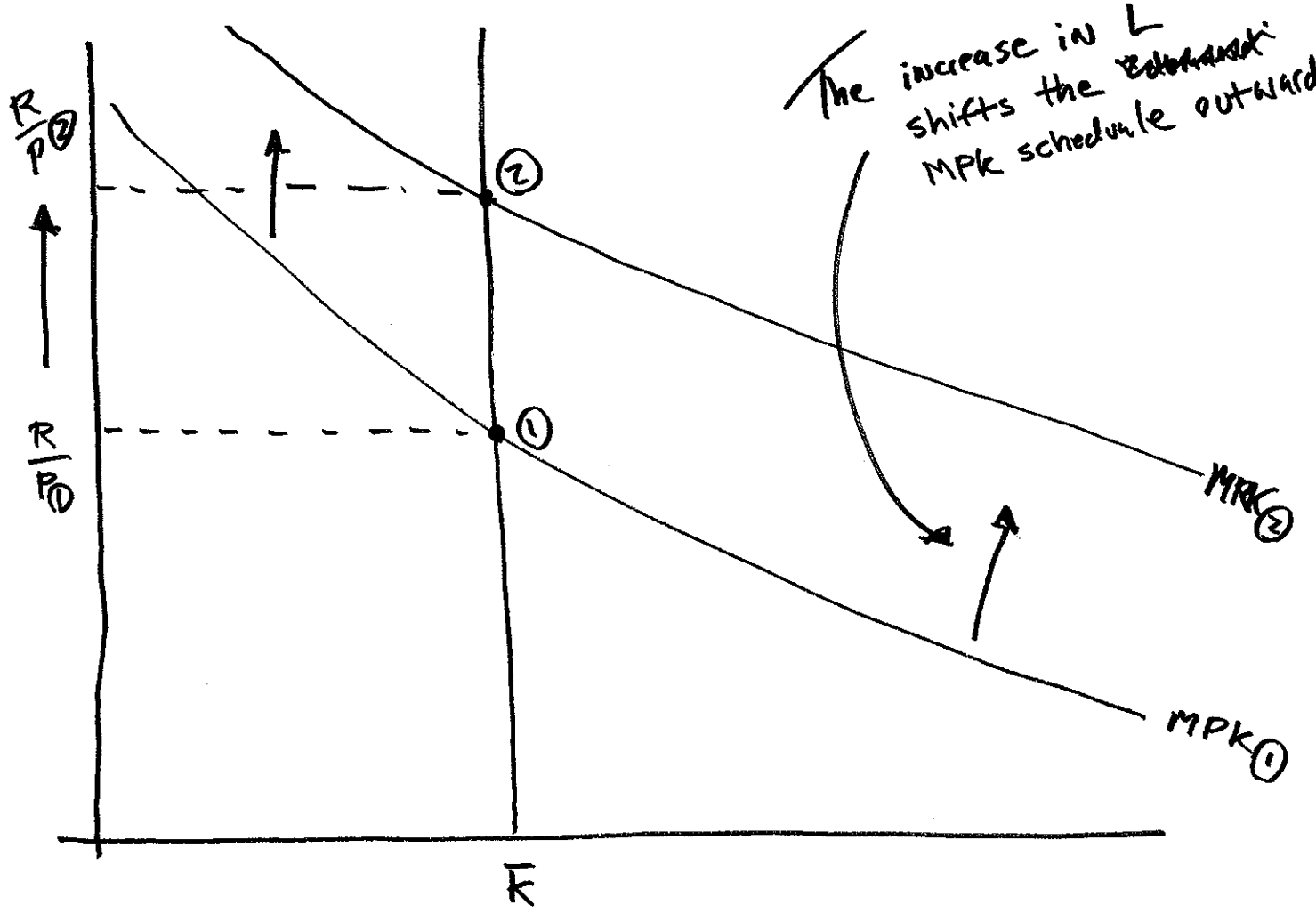
$Y = F(K, L)$, $L\uparrow$, so $Y\uparrow$

This is fixed

Because $Y\uparrow$, this implies $MPK\uparrow$, and $\frac{R}{P}$ is going up. So as a capitalist, you benefit!!!

* Graphically, you can illustrate this in the following way

(2c)



Intuitivly, what is going on here is having more workers make capital more valuable. Thats why the "demand curve" for capital is shifting out in this way. Now that capital is more valuable, this should raise the price that capital recieves.

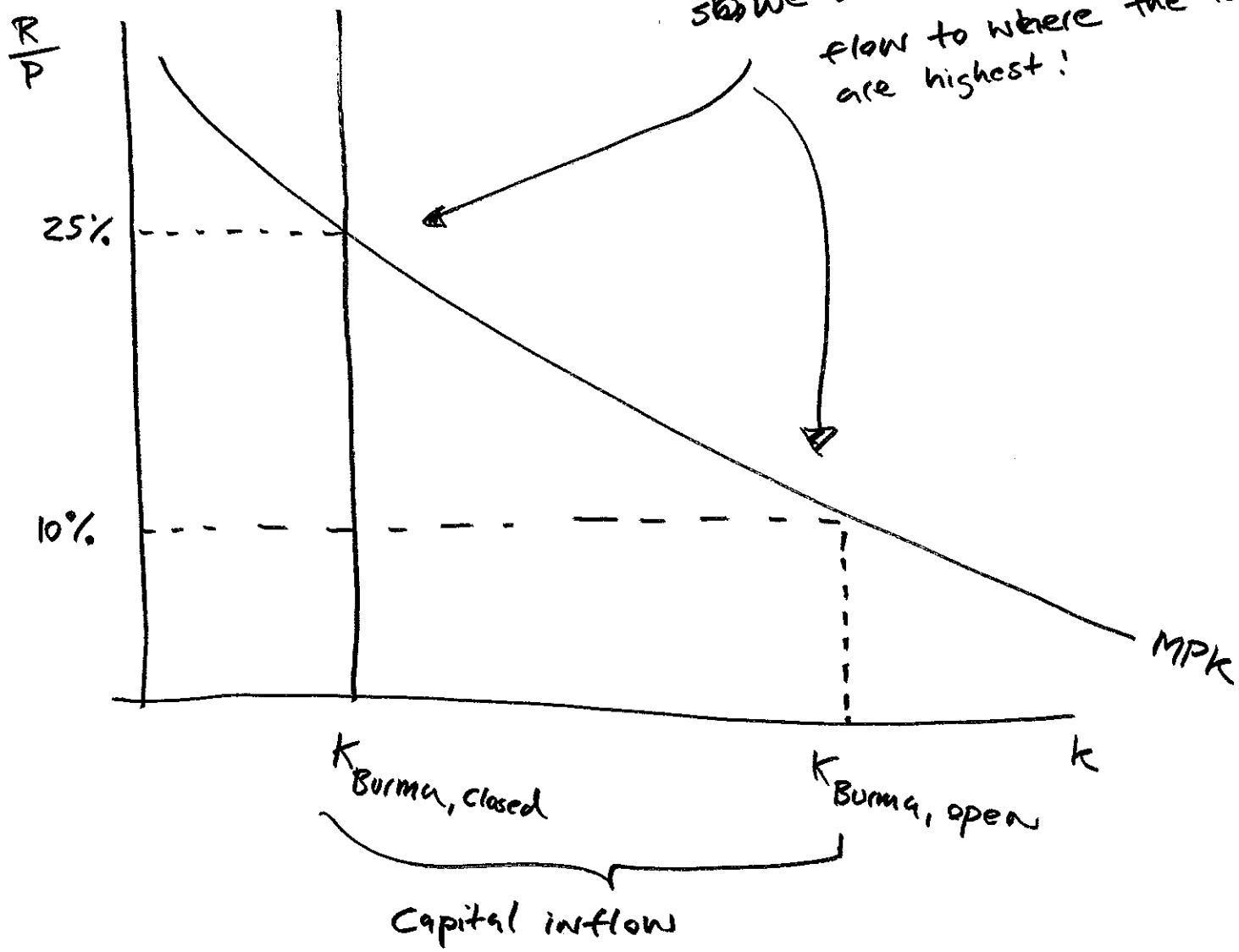
(2d) Yes. If capital can be accumulated, you should suspect two things.

① As K ↑, this should increase MPL and real wages offsetting the effects described in (a)

② As K ↑, returns on capital will go back down as we move <u>along</u> the new MPK schedule.

(2a) Flow in to Burma.

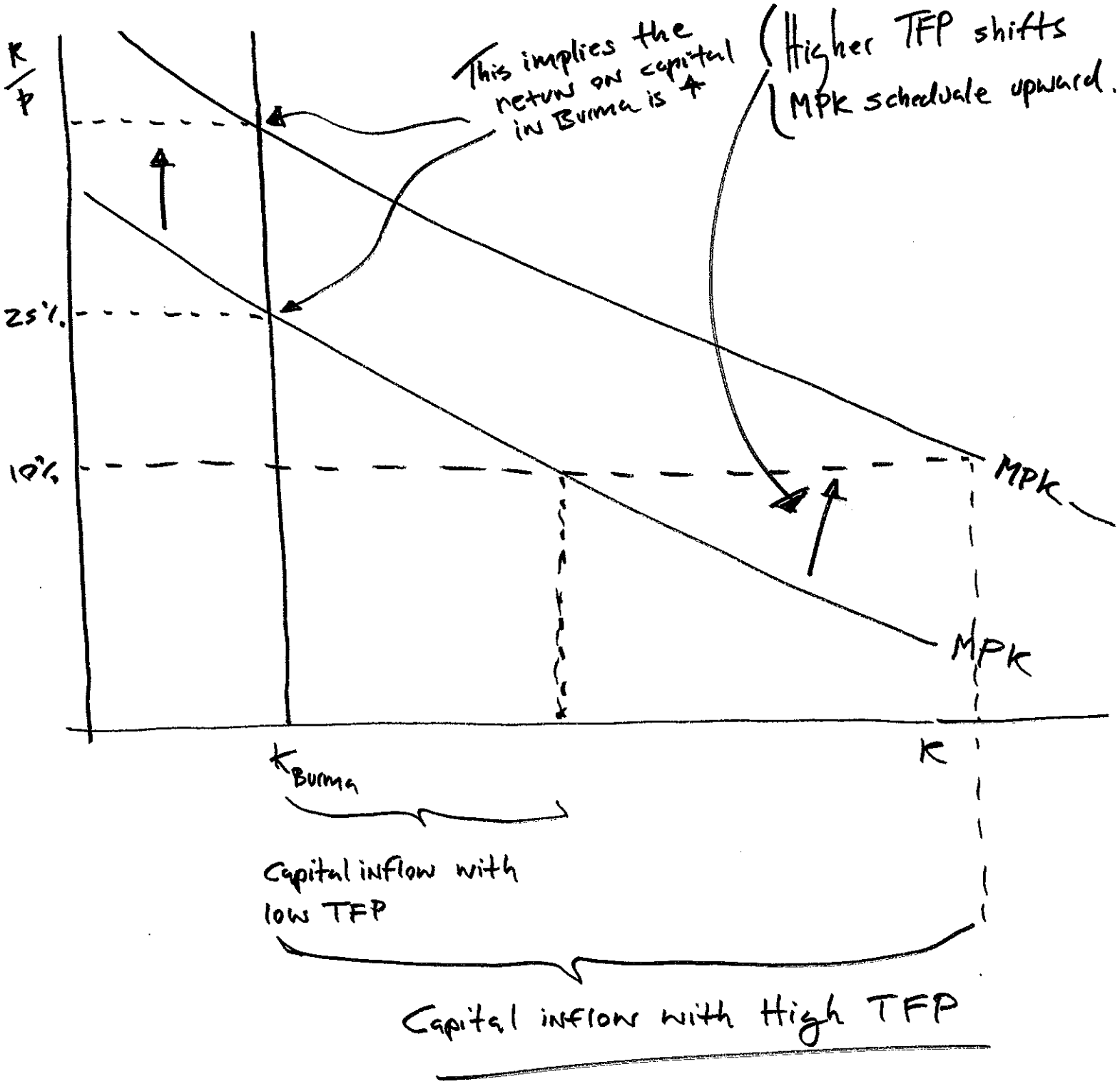
Capital on the world market can earn 10%, in Burma 25%. So we should expect capital to flow to where the returns are highest!



* So capital flows into Burma until the Returns on capital in Burma is equalized with the world rate at 10%

This answers 3b ↑

3c If just increases the returns to capital in Burma, and thus makes it look like a more attractive investment opportunity. Thus more capital flows in.



Why does MPK schedule shift out???

So recall $MPK = \alpha \frac{Y}{K}$

$$= \alpha \frac{A K^{\alpha} L^{1-\alpha}}{K}$$

Where A = Total Factor Productivity.

Now notice, if $A \uparrow$, this raises the MPK at any level of capital.

In other words, this makes capital much more valuable at any level of capital in the economy, hence the curve shifts out.

Note... this almost the exact same argument in (2c). An increase in L (in that case) raises the MPK at any level of capital, and thus is represented by a shift in the MPK schedule.