PRINCIPLES OF MICROECONOMICS, SEMESTER 1, 2016

Tutorial 5 (Week 6)

Q1. Explain what effects the following would have upon the Papua New Guinean (aggregated) market for labour, including what conclusions we can make about the effect upon the equilibrium price and quantity:

a. An increase in the number of workers with tertiary education

Better educated workers are more productive, and so more sought after from employers, thus: $\uparrow D_L$ ($\uparrow w$, $\uparrow Q_L$) [*Note - there is no increase in the number of workers overall, just an increase the proportion who have tertiary educations*].

b. An increase in company tax

Companies now have less money available to hire employees, thus: $\downarrow D_L$ ($\downarrow w$, $\downarrow Q_L$)

c. The Papua New Guinean parliament repeals the law which allowed New Zealanders to enter and work in the country

This leads to less workers in the workforce, thus: $\downarrow S_L$ ($\uparrow w$, $\downarrow Q_L$) [*Note - in reality, most expatriates working in Papua New Guinea are in the skilled-labour part of the workforce, so it would be unlikely that they would affect the wages of low-income Papua New Guineans*].

d. An increase in the Papua New Guinea's terms of trade

Terms of trade = P_X/P_M (price of a unit of exports ('X') relative to the price of a unit of imports ('M'))

Technically, if $\uparrow(P_X/P_M)$, we don't know if it is because of an $\uparrow P_X$, or because of a $\downarrow P_M$. In order to know the full effect of a $\downarrow P_M$, we would need to know a lot more information to give a definitive answer - but an $\uparrow P_X$ will definitely lead to an $\uparrow D_L$ ($\uparrow w$, $\uparrow Q_L$).

e. The government introduces unemployment benefits

Some people will now be less willing to work, thus: $\downarrow S_L$ ($\uparrow w$, $\downarrow Q_L$)

[*Note: 'unemployment benefits' are money paid by a government to unemployed people*].

f. The cost of leisure become cheaper

People will be less willing to work, because they do not need to work as much to enjoy the same amount of leisure, thus: $\downarrow S_L$ ($\uparrow w$, $\downarrow Q_L$).

Q2. Kitara is the latest person to be hired to work in a restaurant, and she earns 5 Kina an hour. Her friend Abbie calculates that Kitara's marginal revenue product of labour (MRP_L) is K10. She tells Kitara that according to the Marginal Productivity Theory of Income, Kitara should really be earning K10, and that she should talk to her boss. Is Abbie's argument economically sound? Why / why not?

According the Marginal Productivity Theory of Labour, Kitara should be earning equal to her MRP_L, i.e., she should be earning K10. However, the Marginal Productivity Theory of Labour only works in

perfectly competitive markets - it is very unlikely that most labour markets are perfectly competitive, so the theory is very unlikely to apply to Kitara's situation.

Q3. What is the difference between production in the short-run and long-run? Is the amount of time that separates the short-run from the long-run the same for every firm?

In the short-run, you can only alter your variable costs, whereas in the long-run, you can alter both your variable and fixed costs. In the simplest, standard model for firms we assume only two factors of production, labour (L) and capital (K), where labour is the variable cost and capital is the fixed cost. The amount of time that separates the short-run from the long-run is *different* for every firm, and usually depends on the industry they are in.

Q4. Consider an Italian restaurant business. Categorise each of its following costs as either fixed costs or variable costs:

Sometimes, you can argue that some costs can be both a FC *and* a VC - however, these are the simple answers:

a. wages paid to waiters VC

b. dinner tables FC

c. pizza dough VC

d. rent on the building FC

e. advertising costs VC

Q5. Mohammed owns a barber shop which earned him zero economic profit this year. He is now considering his future - should he stay in business?

He is indifferent! If his $\pi = 0$, the next best alternative to running his shop is just as good for him as running the shop.

Q6. SP Brewery is worried about their beer business because of increasing costs. Assuming that **they cannot grow any further in the beer market**, what strategy could they adopt to reduce average total costs **that does not lead to a reduction in their output** of beer?

There were three good answers that I could think of:

- Restructure the business (if possible!)
  - This means altering the mix of L and K so that you have the same output, but lower ATC (i.e., you might be able to replace expensive workers with machines (K), or replace expensive machines (K) with cheap labourers...)
- Adopt new technology
  - Whilst there might be an increase in fixed costs in the short-term, the hope is that you will recover your fixed costs with lower ATC over time
- Economies of scope
  - This was the 'gold star' answer - look it up in Lecture 9, Slide 20!

Lots of people seemed to think you could simply fire people - but you can't do that AND keep output constant - you can't just assume you have a whole lot of lazy people who don't contribute anything to production - any good business would have got rid of these people already!!! Also, this is an example where you need to read the question carefully - I have bolded the important parts!