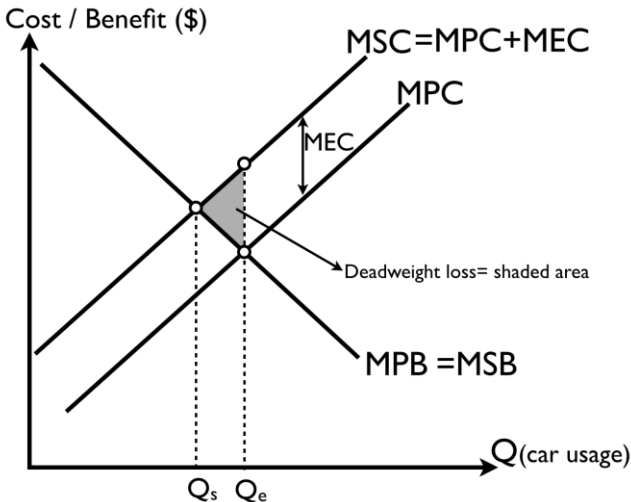
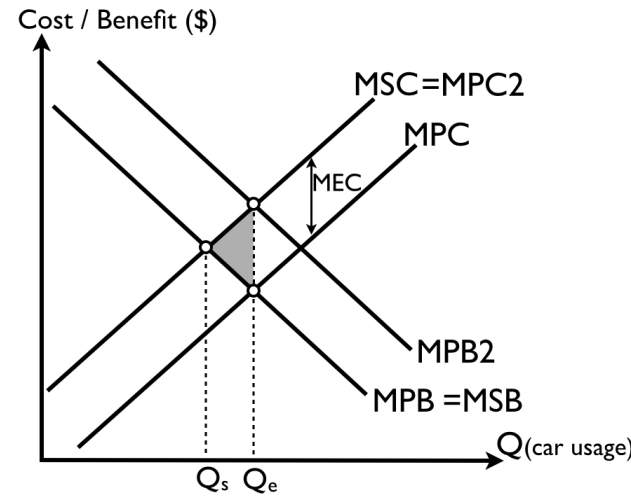


PJC 2014 H2 Economics Preliminary Examination

- Suggested Answers for P1 Case Study Q1

Question 1: Transport Economics in UK and China

(a)	Consider whether the information in Tables 1 and 2 suggests that there is a stable relationship between GDP growth and growth in passenger car registrations.	[3]
	<p><u>Suggested answer:</u> In most years, there is a direct relationship (1) Except UK 2011 there is an inverse / negative rship (1) Thus there is a stable direct rship in most years for both countries (1).</p>	
(b)	Explain how, for the UK, 'the efficient movement of people and commerce across our road networks is essential to fostering a healthy, vibrant economy.'	[4]
	<p><u>Suggested answer:</u> (Possible approaches) Efficient movement of people and commerce (deliveries) reduces travel and delivery costs for firms, boosts productivity and reduces cost of production. –COP / + labour pdty → AS shift down + right → reducing cost-push inflation (firms pass on cost savings) → eqb GDP+, Yf+ (boosts actual and potential growth) → X more competitive (P fall) → +(X-M) → AD+ → actual growth / reduce UnN → improve current acct → improve BOP → attract FDI with lower COP (+profitability) → I+ → AD+ (SR), AS+ (LR) → Actual and potential EG.</p>	
(c)	(i) Explain the rationale for government intervention in the use of cars in cities.	[5]
	<p><u>Suggested answer:</u> When using cars, drivers / car owners only consider their own marginal private costs (MPC) and marginal private benefits (MPB). The MPC include fuel costs and MPB to the driver is the convenience and being able to get to work (in the city of London). Thus they use cars at Qe, where MPC=MPB to maximize their own welfare. Drivers ignore the marginal external costs (MEC) from the use of cars, where air and noise pollution and congestion affects 3rd parties, such as those living near the congested roads (health costs rise with pollution) or those taking buses (time costs rise with congestion). The presence of MEC causes a divergence between MPC and MSC as MSC=MPC+MEC.</p>	

	<p>The socially optimal level occurs where $MSC = MSB$, at Q_s, and since Q_s is less than Q_e, there is an overconsumption of cars (too much car usage in cities), and society's welfare can be improved and maximized if less cars are used, and there is a deadweight loss of the shaded area. Due to this market failure, the government should intervene in this area.</p>	
(c)	(ii) Based on the experience of the UK government in controlling congestion in London, discuss the policy options recommended for Beijing to reduce traffic congestion.	[8]
	<p><u>Suggested answer:</u></p> <p>Intro</p> <p>Traffic congestion is a problem due to the overuse of cars in cities (as explained in c (i)), and the Chinese government can implement a variety of policies that shift demand or supply of road usage in Beijing. The UK government has used a variety of policies and we will examine the policy options in this essay.</p> <p>Beijing can use market based policies, such as the congestion charge, where drivers must pay the congestion charge in order to drive into the city, and this increases the MPC faced by drivers in the use of their cars on city roads. The MPC shifts upwards to MPC_2 and will coincide with MSC ($MPC_2 = MSC$), assuming the congestion charge is exactly equal to MEC. Drivers now will consider $MPC_2 = MPB$ and use cars up to Q_s, which is the socially optimal level. Thus a congestion charge can help to reduce the deadweight loss and bring about efficiency, reducing traffic congestion.</p>  <p>However, the experience of UK suggests that there are other factors affecting the demand for road usage that could cause congestion to worsen again. With a rising population and rising income, more people in China and Beijing are buying cars since cars are normal / luxury goods and the demand rises with a rise in income. The rise in the number of car owners will increase the demand for car and road usage in cities. Graphically, this means a rightward shift of MPB (dd) to MPB_2, and the new equilibrium where $MPB_2 = MPC_2$ will be at Q_e, showing again the problem of overuse of cars in cities, resulting in congestion again. That said, this policy can raise revenues for the Chinese government, allowing her to spend on other policies which could influence the demand for road usage by cars, such as developing the bicycle network or developing the public transport network further.</p>	

	<p>By investing in public transport, or bicycles (non market based policy), like the UK, China can ensure there are alternatives (substitutes) that commuters can utilize to get to work in Beijing. With a greater number of substitutes, and if these substitutes are made more convenient and pleasant (i.e. no need to squeeze in trains), commuters will be more willing to switch to use public transport or bicycles (with ample parking spaces, and a cheap and convenient shared bike network). This reduces the demand for car / road usage in cities, hence shifting the MPB leftwards from MPB2 back to MPB. This can help to alleviate the traffic congestion since a fall in demand reduces the equilibrium quantity and with less road usage, congestion can be reduced in Beijing. While this may create a burden on the government budget, given that the amounts of money spent will likely be large, the cost savings to the Chinese economy may be significant enough to warrant such spending, and it may boost the economy of China, helping to generate more tax revenues for the government to offset this spending.</p> <p>Conclusion: Beijing must use a combination of policies to manage both the cost as well as the demand for using cars on city roads, as London's example shows that a congestion charge is not enough, and even with alternatives, congestion is still a problem. She must weigh the various policy options and approaches.</p>	
(d)	<p>In the UK, there has been deregulation in the bus market, with private firms providing bus services, while in Shanghai, bus services are directly provided by the government.</p> <p>Discuss whether direct provision of bus services such as that in Shanghai would be the most appropriate way of improving efficiency in the bus market in the UK.</p>	[10]
	<p><u>Suggested answer:</u></p> <p>Intro The UK bus market is currently deregulated, and there is market dominance with high barriers to entry (other firms unable to enter). It operates in an oligopoly with 5 major bus firms, and there is evidence of collusion where they do not compete with each other, thus each firm acts like monopoly (on different bus routes) to set high prices ($P > MC$), hence there is allocative inefficiency. There is also possible X-inefficiency (productive inefficiency) and profits are not used for innovation as markets are not contested, thus there is dynamic inefficiency</p> <p>(T) <u>Direct provision is appropriate to improve efficiency</u> The example of Shanghai shows that direct provision by the government can improve efficiency. Direct provision gives the UK government the control over the market to boost bus services (Qty) and reduce prices (P) paid by consumers. To achieve allocative efficiency by setting price equal to marginal cost. Also, by taking over bus services, it may help the UK government to generate some profits from providing bus services, which they can use to subsidize loss making routes or even repay the government debt (assuming that bus services is profit making). In addition, the government could use the revenues to invest in R&D or upgrade the buses to improve the quality of service, reduce fuel costs and reduce carbon emissions, ensuring dynamic efficiency.</p> <p>(AT) <u>Direct provision may not be most appropriate</u> Direct provision may result in govt failure and/or productive inefficiency. As the government firm is not profit motivated, employees / govt firm may not seek to minimize costs, if wages are high, the govt firm may pass on costs to consumers by charging higher prices. Also, red tape and bureaucracy may lead to higher operating costs and limited improvements in services.</p>	

If the government firm is not profit making, for example, if the price set at MC pricing results in subnormal profits, it may worsen the government budget. Given the current slow growth, there is a high opportunity cost in diverting more funds to providing bus services. Hence direct provision may not be appropriate if it is not possible to make profits providing bus services efficiently.

The UK govt can consider regulation of the bus market to improve efficiency. By regulating the prices bus companies can charge, either through setting price ceilings or setting pricing guidelines (MC or AC pricing) that restrict firms' ability to set high prices and / or mandate minimum service standards and fine bus companies that do not comply (such as waiting times <15 mins) etc which some other countries use (e.g. Sg – LTA regulates bus operators to meet minimum svc standards / use buses with a minimum level of fuel efficiency / etc). The same outcomes of lower prices (more allocative efficient) and productive efficiency can be achieved since these profit seeking firms can only maximize profits by keeping costs as low as possible, since cannot set high prices due to the government regulations.

Conclusion

The UK government can adopt direct provision to improve efficiency in various areas, but given the context of austerity, government debt, and possible government failure, a more appropriate alternative could be to use regulations to control the private bus firms in the UK, helping her to improve efficiency in the bus market. Thus direct provision may not be the most appropriate way of improving efficiency in the bus market in the UK