

**SA422: HOUSING ECONOMICS AND FINANCE 2008/2009**  
**Handout 5: Reasons for Government Intervention in the Housing Market**  
**Week 8: 9 – 10 am**

---

1. Up to now we have been looking at how markets for particular goods and services work – and assuming they work well. Now want to look at overall economic objectives; how markets can in principle achieve these objectives and where markets are likely to fail.
2. Objectives of the economy: maximisation of social welfare;  
productive and allocative efficiency;  
equity - vertical, horizontal.
3. Definition of Pareto optimality: that allocation of resources where no-one can be made better off without someone being made worse off. A Pareto optimal solution implies both productive and allocative efficiency. A solution exists for each and every distribution of income.
4. Market allocation can lead to Pareto optimality only under extremely restrictive conditions - requiring perfect competition throughout the economy, individual maximisation, full assignability, full information, zero transactions costs and equilibrium.
5. Under these circumstances, individuals, given preferences and income, consume each product until the marginal utility they obtain is equal to price i.e  $MU_x = P_x$ .
6. Individual firms, given technology, maximise profit by putting  $MR = MC$  where  $MC > AVC$  and  $MC$  cuts  $MR$  from below. In perfect competition  $P = MC$  and  $MC = \min AC$  for every good and service.
7. If there is full assignability (i.e. every decision maker bears all their own costs and receives all their own benefits) the socially optimal allocation can be achieved i.e.  $SMU_x = MU_x = P_x = MR_x = MC_x = \min AC_x = SMC_x = \min SAC_x$ . Thus for each good in long-run equilibrium

$$MU_x = P_x = MR_x = MC_x = \min AC_x$$

Thus the value of the last unit produced is exactly equal to its margin cost and that cost is the minimum possible.

8. Housing clearly has attributes which make it very difficult for markets to work efficiently. These include:
  - (i) complex and bundle of multiple attributes: necessary/luxury, asset/consumption good different elements of dwelling;
  - (ii) slow adjustment of supply and demand;
  - (iii) housing takes a large proportion of income and wealth, but seen as necessary good;
  - (iv) dependence on finance market of both consumers and producers;
  - (v) locationally specific nature of investment;

- (vi) longevity of investment & specificity/irreversibility of asset;
  - (vii) problems of individual relationships;
  - (viii) emphasis on housing in social policy and regulation.
9. Moreover housing is an extremely important means of redistribution. This is partly because housing is seen as a merit good so it maybe politically easier to redistribute through housing. More fundamentally, (iii) makes it particularly important for lower income households.

Sources of Market Failure:

10. (i) Public goods e.g. defence, street lighting. Goods are (a) non-rival so one person's consumption does not reduce that available to another - so wish to consume until  $MU = 0$  and should not then charge for the marginal unit and (b) non-excludable so cannot stop others using what is produced - so cannot charge. Produce where

$$\sum_{i=1}^n = mc_{provision}$$

Housing is clearly much closer to a pure private good: consumption by one person is rival to that of another; exclusion from most benefits is certainly possible (i.e. private property rights); benefits go to the owner or occupier. Moreover, housing is complex and choice is important to obtain suitable mix of attributes and therefore maximise utility.

11. (ii) Externalities - external costs arising from fire, disease etc. dealt with by public health regulations etc. Equilibrium is when  $MU_{SOC} = MC_{SOC}$  (figure 1). Above these very low levels difficult to show significant external costs - except for locational externalities with respect to investment. Possibility of enforcing individual contracts and property rights because small numbers involved. However significant equity problems: relationship with income distribution, merit goods.
12. External benefits - quality of environment and life; productivity even life expectation. Obvious problems of information and valuation but little evidence of significant externality. If there are externalities  $MU \neq MU_{SOC}$  and/or  $MC \neq MC_{SOC}$ .
13. Interactive externalities where benefits and costs spill over on to others in same situation. Prisoner's dilemma: stable equilibrium not equal to social optimism (figure 2). Modify pay-off matrix by altruism, incentives/side payments, regulation/fines.
14. (iii) Information - problems of evaluating the outcome of decisions and particularly the value of outcomes. Irregularity of decision; size of commitment and cost of mistakes; misunderstanding of market pricing; asymmetric information may mean that preferences are poorly revealed and that mistakes are made. Distinguish transactions (information) costs - and public good nature of information; asymmetric information/ inadequate contract which generates market power and incapacity to draw up effective contracts. If there are information problems  $MU \neq P$ ; similarly on cost side may not use factors in most efficient fashion. Again problems clearly apply to housing, especially on demand

sides - but also strong incentive to know one's own mind.

15. Related problem of risk and risk aversion for the individual. If outcomes are not certain must weigh probabilities and concerns about risk - most people risk averse for large decisions - insurance, diversification. Also potential for moral hazard - where one/both side(s) can affect probabilities by behaviour.
16. Particular problems of investment and intergenerational external arising from undervaluing the benefits and costs of investment because of timing of these benefits and costs and because (iv) the private discount rate may not be higher than the social discount rate resulting in under maintenance and under investment. Reasons not just information but because individuals die while society continues. Case for government intervention to invest in all parts of the market in order to reallocate resources to future (sustainability arguments).
17. (v) Market power. This may partly be the effect of asymmetric information but mainly a result of barriers to entry, leading to the capacity to restrict supply and increase prices. This results in  $P > MR = MC$  and therefore breaks the link between utility and cost (figure 3).
18. In housing production there are few economies of scale or constraints on entry in housing provision. However,
  - a) problems of adjustment because of size of investment in relation to existing stock lead to short-run relative power and shortages as well as inequitable redistribution of income although not necessarily efficiency losses;
  - b) land ownership and capacity to hold land (or housing) off the market. However, effect of controls may be as important in efficiency terms as the original market failure;
  - c) individual relative power between landlord and tenant arising from growth of consumer surplus with length of residence.
19. The fact that housing is an investment good means that both consumers and suppliers are dependent on the finance market. If that market is imperfect funds may not be available at a price which properly reflects risk and the opportunity cost of funds. Historically, there was a special circuit of housing finance with rationing and highly risk averse suppliers. Since deregulation the problems are more in terms of correct risk assessment. On the investment side there are problems of volatility and high bankruptcy rates leading to wasteful use of resources.
20. (vi) Housing is often regarded as a merit or social good i.e. a good where the social valuation differs from that of the individual as a result of interdependence of utility. For example a rational individual with given income may choose to consume very little housing but society decides certain standards must be met. This may result in standards higher than those which would arise even if other market failures (notably externalities) were taken into account. It may also result in intervention directed specifically at housing rather than increasing income.

Housing and Equity:

21. Major reason for government intervention is in terms of equity:
- equal opportunity for those in similar circumstances;
  - redistribution of resources to poorer households;
  - minimum standards for all.
22. Basic question is why redistribute via housing rather than through income. Comparative static analysis points to redistribution of income rather than specific goods such as housing. However issues such as work incentives; slow adjustment; externality, and housing as a merit or social good point to the use of specific subsidies.
23. Price v. Income Subsidy Example: Assume the government wishes to subsidise rented housing either through rent reductions or transfers of income. Initially housing is provided on the market at market clearing rents. The government decides to help consumers to obtain more housing (i) by allocating a given higher quantity of housing at a reduced rent; or (ii) by subsidising the rent and allowing free choice of quantity; or (iii) by giving an equivalent income subsidy. In figure 4,  $h_1$  = demand at original rent;  $h$  = where consumer is constrained to consume a given level of subsidised good H,  $h_2$  = unconstrained choice when H subsidised. Budget line dd shows (iii) the impact of an equivalent income subsidy with consumption  $h_3$ . In terms of the individual's welfare  $h_3 > h_2 > h > h_1$ .
24. The figure suggests that an income subsidy will be the most effective in increasing welfare, because rents continue to reflect real resource costs and consumers have freedom of choice. This analysis is however partial. It does not allow for other effects through the economic system.
25. In both theoretical and practical policy terms the question is not so simple. Problems include (i) possible price effects of increased income where markets cannot adjust rapidly; (ii) social benefits of higher housing consumption; (iii) possible effect on preparedness to work and (iv) relative political ease of redistributing by cash or kind.

Reading: LeGrand, Propper & Robinson  
 Lipsey & Chrystal, 11 ed, chapters 13 and 14; 10 ed, chapters 19 and 20  
 OR Begg, Durnbusch & Fischer, chapter 15  
 Oxley, chapters 3 and 4  
 Whitehead, chapter 8 in O'Sullivan & Gibb

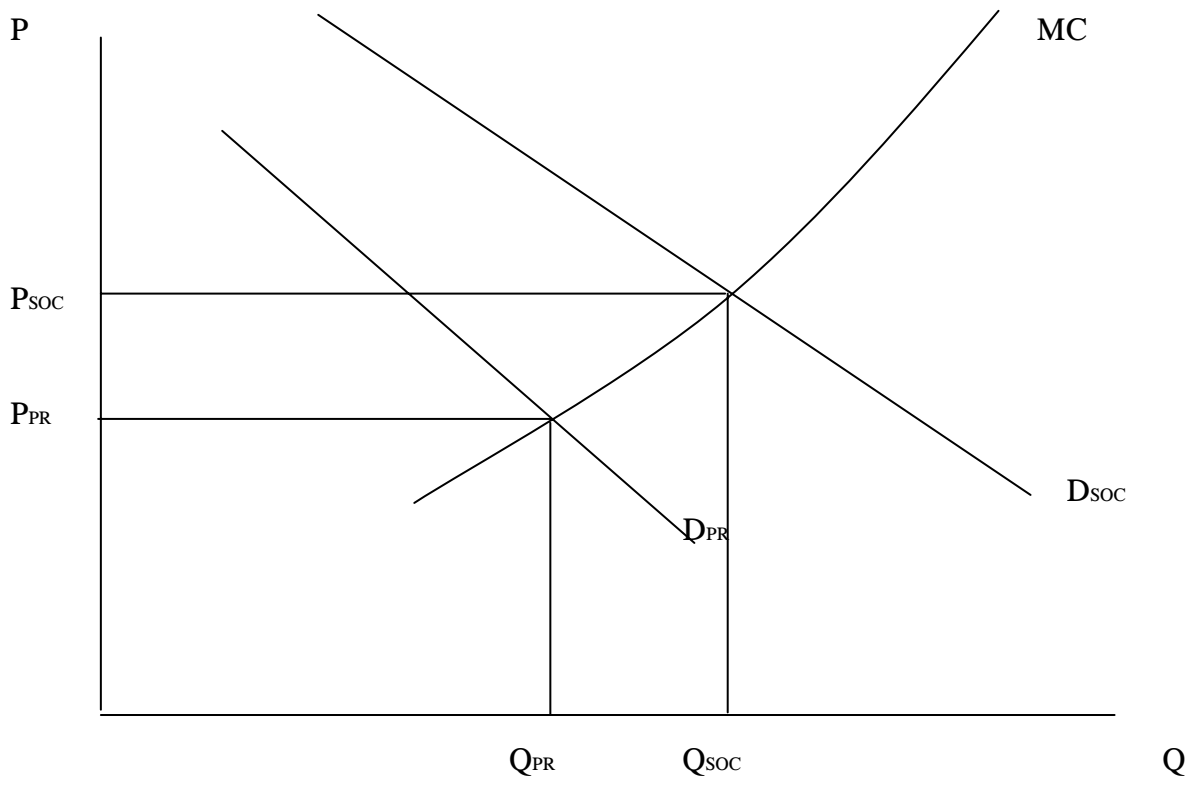
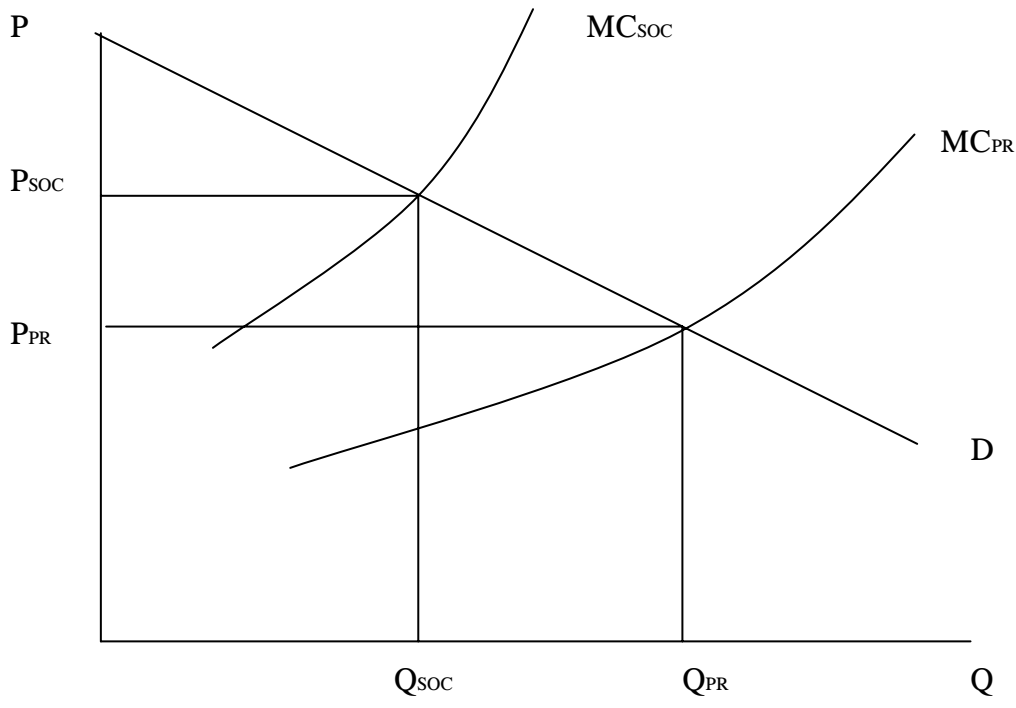


Figure 1: Externalities: Positive and Negative

		B	
		I	NOT I
I	8, 8	1, 10	
A	10, 1	2, 2	
NOT I	10, 1	2, 2	

BOTH A and B max utility s.t. the other's expected behaviour  
 $10 > 8$ ;  $2 > 1$  so decide NOT I  $\rightarrow$  sub optimal result

Figure 2: Interactive Externalities

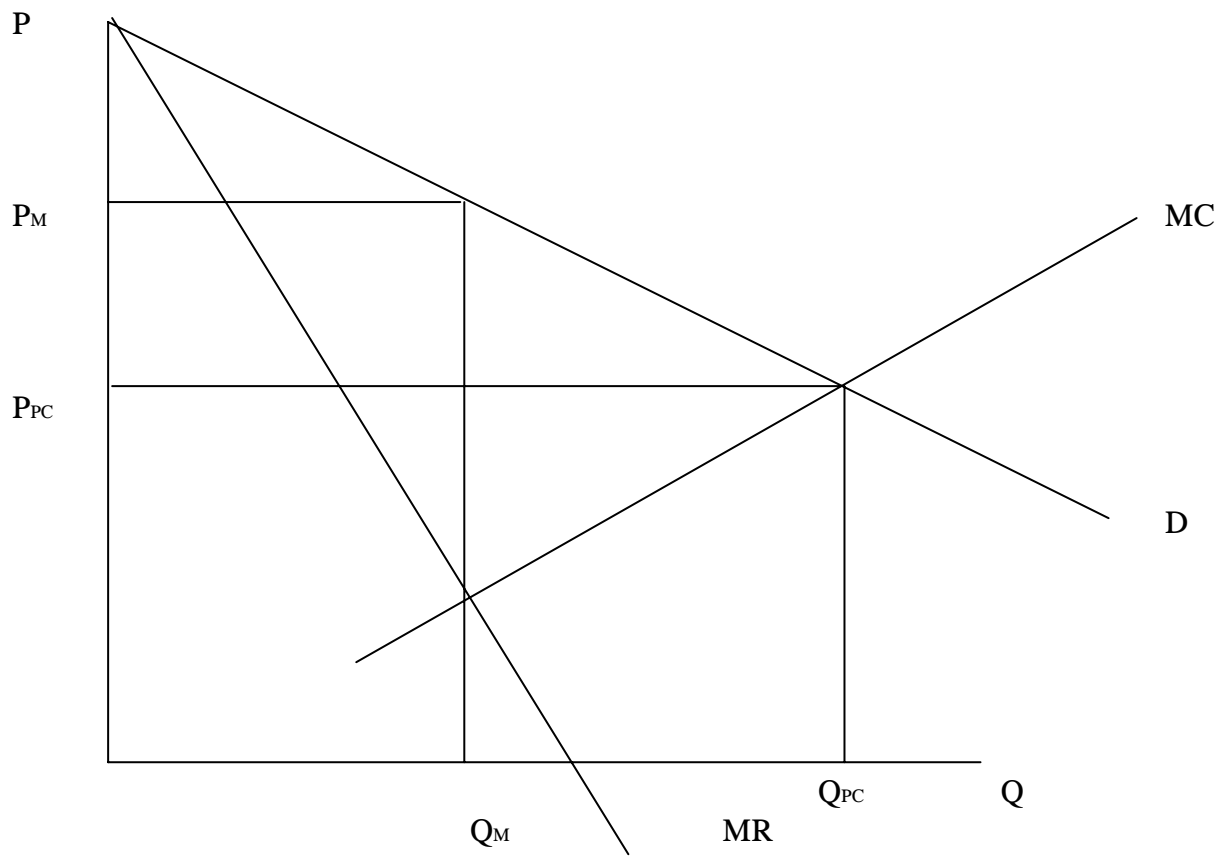


Figure 3: Monopoly Power

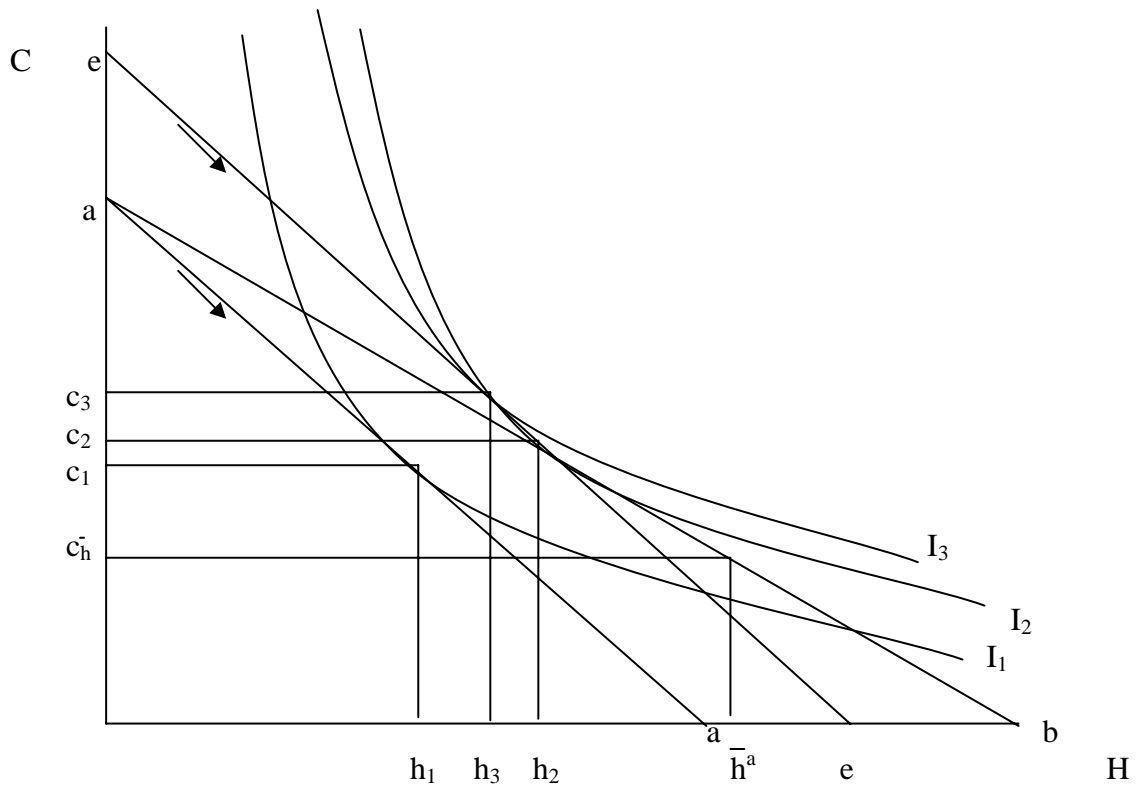


Figure 4: Impact of Price Subsidy as compared to Income Subsidy