

tutor2u™

Supporting Teachers: Inspiring Students

Economics Revision Focus: 2004

AS Economics

Obesity, Market Failure and Government Intervention

tutor2u™(www.tutor2u.net) is the leading free online resource for Economics, Business Studies, ICT and Politics.

Don't forget to visit our [discussion boards](#) too as part of your Economics revision.



Revision Focus on Obesity, Market Failure and Government Intervention

AS Syllabus Requirements

Positive and Negative Externalities in Consumption and Production

Candidates should understand that externalities exist when there is a divergence between private and social costs and that negative externalities are likely to result in over-production

Merit and Demerit Goods

Candidates should understand that the classification of merit and demerit goods depends upon a value judgement and that such products may also be subject to externalities.

Government Intervention and Government Failure

Candidates should understand the reasons for government intervention in a market economy but that government intervention does not necessarily result in an improvement in economic welfare. Governments may create rather than remove market distortions.

What can Economics contribute to the issue of the obesity? There is little doubt that the problem of obesity has become a matter of great **economic and social concern**. Does it represent a failure of the free market? If so, what forms of government intervention might be appropriate? Or is there the danger of ineffective, inequitable and inadvisable intervention in the market and in people's lives bringing with it the **risk of government failure**?

What is obesity?

Obesity is a heavy accumulation of fat in the body's fat cells to such a serious degree that it rapidly increases the risk of obesity-associated diseases and mortality. An excellent method to measure obesity is the Body Mass Index (BMI). It is calculated as your weight (in kg) divided by your height (in metres) squared. People of average weight are considered to have a BMI between 18.5 and 25 and people with a BMI of over 30 (kg/m²) are considered obese.

Obesity in the United Kingdom

Most of these statistics are drawn from Royal College of Physicians; the annual reports of the UK's Chief Medical Officer and research published in the medical journal The Lancet

1. The occurrence of obesity has increased by five fold since the Second World War
2. 70% of men and 63% of women in the UK are overweight or obese
3. Cases of obesity in the UK have tripled over the last 20 years. By 2020, it is forecast that at least one third of adults, one fifth of boys and one third of girls will be obese
4. Obesity reduces life expectancy on average by nine years
5. Obesity accounts for 30,000 deaths a year in the UK
6. Obesity is estimated to cost the British economy over £2bn every year
7. In 2001, we ate 2bn meals from fast food restaurants in the UK
8. For each additional can of fizzy (sugar-sweetened) drink that a child consumes every day their risk of obesity increases by 60%

9. One in five children in Britain eats no fruit at all
10. Obesity only develops from overeating, irregular meals and lack of daily physical activity

Causation

The growing incidence of obesity in the UK is the result of a complex series of **economic** and **social factors**. To a degree, obesity is a by-product of an increasingly successful economy. We are better off than we were twenty or thirty years ago and our **food processing industry** is ever-more successful in producing huge amounts of processed foods that fill our supermarket shelves.

Among the key factors contributing to obesity are the following:

1. **Changing lifestyles** – for example a reduction in the calories we concern doing menial tasks because of the advance of technology in the home; and a rising demand for processed, convenience foods. Increased “grazing” of food rather than relying on two or three main meals during the day is also thought to boost total food consumption
2. **The falling real cost of processed foods because of economies of scale** – this type of food is often much cheaper than fresh food and becomes an important part of the weekly shopping of households on average or below average incomes
3. **Calories:** There has been an increase in calorific consumption per day but a reduction in the quantity of daily exercise taken – there are enormous concerns about the increasingly sedentary lifestyles of millions of people in the UK
4. **A rise in relative poverty** – there are well established links between the scale of income inequality and the risk of lower-income groups becoming reliant on lower priced processed foods that often have a high fat and/or high salt content. Poorer families are also far less likely to be able to afford to spend money on lifestyle activities such as membership of a sports club
5. **Bigger portions:** There are deep-rooted fears that food consumption is also being driven higher by bigger food portions, addiction to fast food and the effects of intensive marketing and advertising by food manufacturers and retailers. According to the National Forum on Obesity, in the UK there has been a 30% increase in portion sizes of fast foods and takeaway foods over the past decade

Market Failure

To what extent does obesity represent a failure of the market economy? Or are there wider economic and social problems present for which obesity is largely a symptom? There seems little doubt that obesity does create substantial external costs for the economy

1. **Externalities:** There are significant negative externalities arising from growing levels of obesity. Up to 8 per cent of healthcare costs in Western countries are linked to obesity and severe obesity is associated with a twelve-fold increase in **premature mortality** in people aged 25 to 35. Many of them relate to the longer term consequences for the health of our population. Some experts predict that obesity is likely to overtake smoking as a **primary source of cancer**. It is a major factor behind the growing problem of diabetes and is linked to falling life expectancy. All of these factors contribute to an **increased burden for the National Health Service** are it might also lead to **higher health insurance premiums** for those taking out private health care
2. **Macroeconomic costs:** The externalities extend to long term macroeconomic risks for the British economy. Rising levels of obesity are contributing to increased **absenteeism** from the workplace

(via the secondary health consequences) and they will probably have a negative effect on the **labour supply, labour productivity** and general **competitiveness**. Obesity is linked to 18 million sick days and 40,000 lost years working life each year

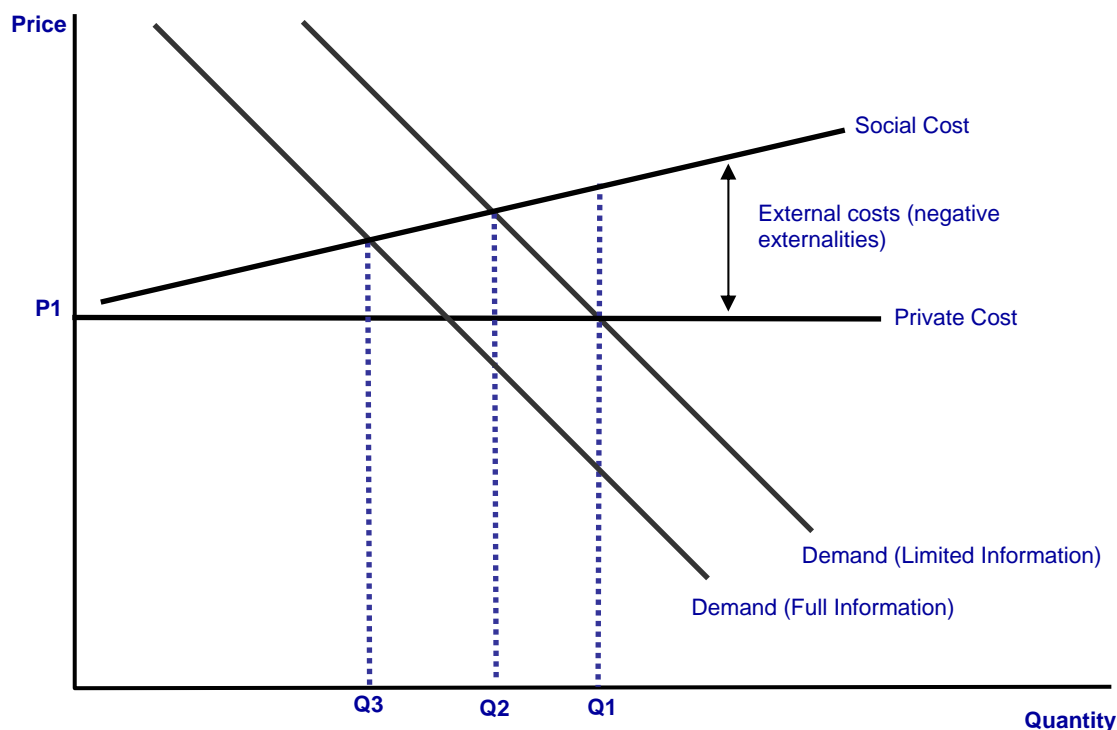
3. **Information Gaps:** Is obesity a direct consequence of information failure? Should high-fat foods and high-salt foods be regarded as **de-merit goods** because most consumers do not fully understand or appreciate the long term consequences of over-consumption on their own health? If better information was made available would demand shift inwards? Have consumer preferences been distorted by the effects of **persuasive advertising and marketing** which cause us to be unaware of the hidden dangers of eating processed foods?
4. **Equity concerns:** There are important links between relative poverty and health. The obesity epidemic in the UK has been an emerging problem for over twenty years. And in that period we have also seen a **rise in relative poverty** despite a clear improvement in our average living standards and affluence.

De-merit goods, market failure and the loss of social welfare

How do we illustrate the potential market failure arising from over-consumption of de-merit goods such as high-fat foods? The diagram below provides one answer.

When there are negative externalities, the social cost curve lies above the private cost curve. The free market may fail to take account of these externalities meaning that the de-merit good is under priced and over-consumed. The private optimum level of production is Q1.

A second problem is the information failure issue. Consumers may not appreciate the longer term costs of their consumption decisions. If they had full access to the available information, their demand curve (showing their willingness to pay at each price level) might be further to the left. A reduced rate of demand / consumption would help take output closer to a socially optimum level of production (Q3).



The Options for Government Intervention

Should the government intervene directly in the market given the scale of concern over obesity? There are many different forms of intervention but not all of them will be effective, equitable or sustainable. And we must remember that there are many different causes of obesity and that the issue itself is linked to other policy concerns. The three main policy intervention options are:

1. **Market-based incentives** such as indirect taxation and subsidies
2. **Regulation** (i.e. “command and control” policies) within the food industry
3. **Direct government intervention** through its own spending programmes

The main aims of intervention are

1. **To change the relative prices** of different products (e.g. to raise the price of high-fat fast food and make fresh food relatively cheaper) – this should cause an expenditure switching effect among consumers
2. **To change the incentives for producers**
3. **To improve the information available to consumers** to help overcome information failures

A tax on high-fat foods

Is a tax on fatty foods the answer? This might come either from a new tax or the **extension of VAT** is proposed for some dairy products, fast food and sweets. The British Medical Journal recently claimed a 'fat tax' could help prevent 1,000 premature deaths from heart disease every year in the UK. You could use simple **supply and demand analysis** to show the effects of the tax. It would increase the supply costs of producers causing an inward shift of supply and higher prices for consumers. The resultant reduction in demand would depend on the **price elasticity of demand** for those products directly affected by the tax.

The main arguments about such a tax are based on **equity considerations**. A fat tax would hit lower income families who already spend a higher proportion of their income on food and drink much in the same way as the existing taxes on cigarettes are said to have a **regressive effect** on the distribution of income. A second criticism is that you cannot necessarily tax people into fitness or weight loss. Taxes are fairly **blunt instruments** and consumers rarely if ever react in the precise theoretical way that they should do according to the Economics textbooks. Instead of taxing de-merit goods, might it be better to reduce the relative price of healthy foods – many of which remain very expensive and out of the reach of the family on average incomes?

Other options

1. Persuading food manufacturers to decrease portion sizes of their main branded products
2. A ban on television advertising of junk foods especially those aimed at children
3. Regulations on the contents of vending machines in schools and colleges and public places
4. Clearer and more informative food labelling for consumers
5. Government provisions of water fountains in schools – proper hydration has an effect on appetite and would reduce the demand for high sugar fizzy drinks
6. Increased spending on exercise programmes and facilities in schools and in local neighbourhoods
7. Subsidies for cholesterol busting drugs such as statins to reduce some of the problems associated with clinical obesity

8. Fundamental reforms of the European Union's Common Agricultural Policy so that the costs of imported fresh foods from outside the EU is reduced
9. Regulations on the nutritional content of food and drinks

The reality is that the main drivers of obesity in the UK — poor diet and a sedentary lifestyle — are largely outside the direct influence of the NHS, the government (through taxation) and other agencies. Tackling the problem of people not eating healthily is a lot more complicated than a simple tax and there are billions of pounds and dollars to be made from exploiting the problem of obesity. It is estimated that Americans spend nearly \$50 billion per year on diet aids and other products sold by the diet and fitness industry.