

Imperfect information

In this centrespread, **Steve Stoddard** outlines the concept of imperfect information and explains the potential consequences

What is imperfect information?

- Imperfect information means that economic agents (consumers, producers, governments) do not know everything they need to know in order to make a fully informed decision.
- Imperfect information makes it difficult for economic agents to make rational decisions and is a potential source of both market failure and government failure.
- Imperfect information is sometimes referred to as information failure or information gaps.

Sources of imperfect information

- Economic agents can be faced with too little information, or too much information.
- Too little information means that people lack sufficient information to make a fully informed decision.
- Too much information can lead to information overload, where people lack the ability to fully process all the relevant information involved in making a decision.
- Information can also be presented in such a way as to exclude some people and be meaningful to others, e.g. technical or legal jargon.
- There can be costs involved in acquiring information, which deters people from doing so, e.g. surveys on buying a house or mechanical checks on second-hand cars.
- Economic agents may find themselves knowing more or less information than others involved in a transaction. This is known as asymmetric information.

Consequences of imperfect information

- Underconsumption of merit goods.
- Merit goods are those that would be underconsumed in a free market.
- This may be because people aren't fully aware of the benefits of consuming merit goods for themselves or for society as a whole.
- Merit goods are an example of market failure because the level of provision in a free market is lower than that which would maximise the overall benefit to society.
- Figure 1 illustrates the potential underconsumption of merit goods such as healthcare, education, healthy food, exercise and car insurance.

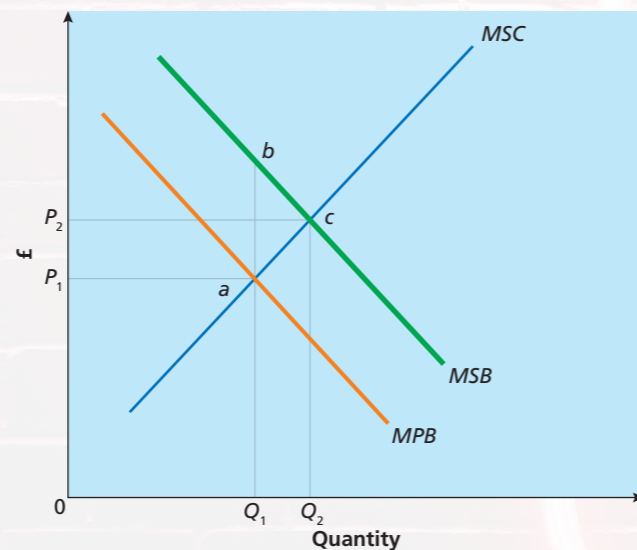


Figure 1 A diagram to illustrate merit goods

- Marginal social benefits (*MSB*) exceed marginal private benefits (*MPB*), meaning there is a marginal external benefit, equal to the vertical distance between the *MSB* and *MPB* curves at the free-market equilibrium quantity, Q_1 . As the social optimum quantity occurs where $MSB = MSC$ (marginal social cost), i.e. at Q_2 , there is underconsumption equal to $Q_2 - Q_1$, leading to an overall welfare loss equal to the triangle *abc*.

Overconsumption of demerit goods

- Demerit goods, like alcohol and cigarettes, are things people might use too much in a free market because they don't consider the harm to themselves or society.
- This may be because people aren't fully aware of the harm of consuming demerit goods to themselves or to society as a whole.
- Demerit goods are an example of market failure because the level of provision in a free market is greater than that which would maximise the overall benefit to society.
- Figure 2 illustrates the potential overconsumption of demerit goods such as alcohol, tobacco and junk food.

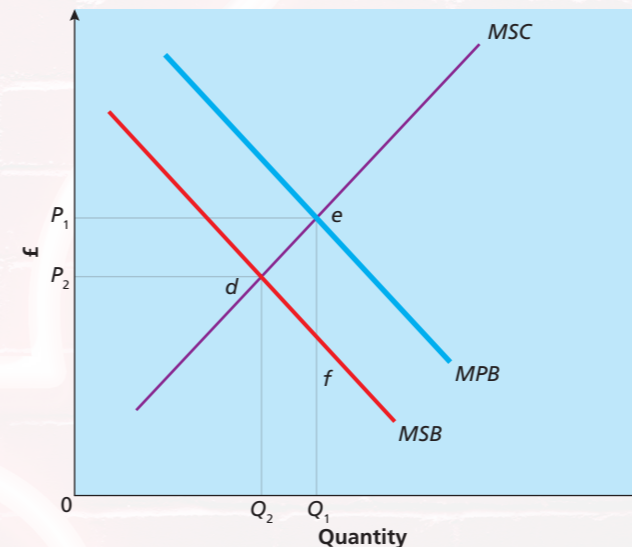


Figure 2 A diagram to illustrate demerit goods

- Marginal private benefits (*MPB*) exceed marginal social benefits (*MSB*), meaning there is a marginal external cost, equal to the vertical distance between the *MPB* and *MSB* curves at the free-market equilibrium quantity, Q_1 . As the social optimum quantity occurs where $MSB = MSC$ (marginal social cost), i.e. at Q_2 , there is over consumption equal to $Q_1 - Q_2$, leading to an overall welfare loss equal to the triangle *def*.

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Government failure

- Government failure is said to exist when government intervention in a market leads to a misallocation of resources.
- Governments often act with highly imperfect information. For example, it is extremely difficult in practice to place an accurate monetary value on the external costs associated with road congestion or the external benefits linked to vaccinations against certain diseases.
- For this reason, any indirect tax or subsidy used to deal with these issues is unlikely to deal completely with or 'internalise' these externalities, leading to a socially sub-optimal, or allocatively inefficient, quantity being produced and consumed.

What is asymmetric information?

- Asymmetric information happens when one side knows more than the other in a deal, often leading to unfair advantages.
- It is often the buyer who lacks information, but it can occasionally be the seller who has less information than the buyer.
- Asymmetric information leads to an imbalance of power, where one party can exploit the other, resulting in market failure.
- Uncertainty caused by asymmetric information can lead to a lack of trust between agents, which may mean that a mutually beneficial exchange does not occur.
- This concept was made famous by the economist George Akerlof in his 1970 paper, 'The market for lemons', concerning the imbalance of power between the buyer and seller in the market for second-hand cars.

Moral hazard and adverse selection

- Moral hazard and adverse selection are possible consequences of asymmetric information.
- Moral hazard occurs when an individual or organisation pursues more risky behaviour because they know they are protected by others bearing the potential cost of this risky behaviour.
- In the case of motor insurance, moral hazard may lead to someone driving with less care, knowing that the costs of any damage are mostly covered by the insurer.
- Before and during the financial crisis of 2008, it is possible that banks took more risk than necessary because they knew that they were likely to be bailed out by governments.
- Adverse selection happens when one party knows more than the other, like a smoker hiding their habit to get cheaper health insurance.
- In the case of health insurance, someone with an unhealthy lifestyle, such as a smoker, has an incentive not to disclose or at least understate their cigarette consumption in order to obtain a lower insurance premium.
- Insurance companies cannot accurately assess all people who apply for insurance policies and so, in order to make a profit, they end up charging everyone a high premium, even those who honestly state their consumption of cigarettes, alcohol or other relevant aspects of their health or lifestyle.