

# [A team, 2017). there are lots of different](https://assignbuster.com/a-team-2017-there-are-lots-of-different/)

Anegative externality is “ a negative effect of a production, consumption orother economic decision that is not specified a s a liability in a contact” (TheCore Team, 2017). There are lots of different negative production externalitiessuch as: air pollution, damage to the environment, external costs offertilizers and pesticides used in farming and noise pollution to name a few. Negative consumption externalities on the other hand includes for example: fly-tipping of household waste, effects of passive smoking, impact on familylife from negative addictions and noise pollution from sport and music events. Spillover costs are created by these externalities which then causes market failure.

To show how this leads tomarket failure, one has to make a distinction between the private costs andbenefits to the individual consumer and producer and the social costs and benefitsto society as a whole. If we add together private cost and external cost, theresult is social cost. In the diagram above, P1, Q1 is a free market optimum. Thismeans that the marginal private cost of consumption and production is equal tothe marginal private benefits. However, if there are negative externalitiesthen the marginal social cost curve lies above the marginal private cost curvedue to the addition of external costs. If the marginal social cost ispositioned away from the marginal private cost then the marginal external costof extra output is assumed to be increasing.

The difference between the twocurves (MSC and MPC) shown by the dotted red vertical line is the external costwhich is associated with the output Q1. If these externalities are not takeninto account, this can lead to market failure. Preferably, one would needanother output as shown in the diagram as Q2 – a quantity which is less thanQ1. Without intervention, free market can overprovide or overconsume goods andservices where there are negative externalities. P2, Q2 in the diagram takesinto account the negative externalities and therefore creates the socialoptimum output. The equilibrium level of output delivered by a free market isat Q1 where marginal private benefit equals marginal private cost and it isallocatively inefficient.

One would assume in this example that there are noexternalities arising from consumption so the social optimum is at P2, Q2 whenwe take into account the externalities. There is also a deadweight loss ofwelfare due to market failure. The shaded area on the diagram shows the socialwelfare loss which is caused when the market output supplied is higher than thesocial optimum which in turn is a wasteful allocation of resources.

Using corn farming as anexample, a farmer uses his private costs such as fertiliser to help his cropsgrow in both quality and quantity. However, some of this fertiliser goes into ariver nearby and contaminates the water thereby causing fish to die which inturn incurs a negative externality on the fisherman and the land ownersdownstream. There are three possible solutions for these negative externalities– taxation, regulation and property rights. In order to reduce theamount of production of the goods that created negative externalities, ArthurPigou suggested that the government could introduce a tax on the producers. However, this found difficulty in monitoring. With regards to the example, itis difficult to know how much fertiliser is being laid out or the amount ofpollution that is being emitted which means that the cost of monitoring ishigh.

This is seen as a disadvantage. Regulation, on the otherhand, has many different varieties. One for example is through technologyspecifics methods. This is where the government requires producers to involvethe use of certain technologies to reduce pollution or emissions. Monitoringcosts are low using this method which is beneficial. There is no need to havesomeone constantly monitoring the emissions because it is clear that thetechnology is present and working. On the down side, it means that firms do notneed to find other ways to further reduce their emissions resulting in a lackof incentive and innovation. Another type of regulation is to simply restrictthe amount of goods and pollution that is being created.

A disadvantage to thisis that monitoring costs are dear. Property rights play a very bigpart in negative externalities as without them it can cause a lot of issues. Coase’s theory explains this “ Under perfect competition, once governmenthas assigned clearly defined property rights in contested resources and as longas transactions costs are negligible, private parties that generate or areaffected by externalities will negotiate voluntary agreements that lead to thesocially optimal resource allocation and output mix regardless of how theproperty rights are assigned”(Ronald H. Coase, 1960). The solution to thenegative externality is simple – assign a property right.

In order for theserights to be successful, they must follow certain requirements. The rights needto be well defined and specific. They also need to be divisible and have theability to be traded. Finally, the rights have to be dependable, enforceableand recognisable.

If, in the example, thefarmer has property rights of the river, one would assume he does not need tochange his routine. However, those effected downstream (the fishermen) couldnegotiate with the farmer prompting him to use less fertiliser on the fieldsthus reducing the amount contaminating the river and the quantity of fishdying. If the rights are assigned to the fisherman, who initially required thefarmer to stop putting fertiliser on the land, then the farmer now has theincentive to negotiate the fisherman. The fisherman would allow a certainbeneficial amount of fertiliser to be used on the fields but less than theamount the farmer was using before.

In each scenario, a solution is made tointernalise or overcome the externality. Both parties now know the cost of theexternality and are able to overcome it. There is also incentive for bothparties to find way to reduce the negative impact on the social welfare. Incomparison to other regulations the monitoring costs are significantly lowmaking it more beneficial. In conclusion, negativeexternalities play a huge part in market failure but are easily overcome withcertain solutions. The government can intervene but imposing taxes, regulationand giving out property right