

GLORIOUS MARKETS THAT SOMETIMES FAIL

Do we need government to regulate some markets?

PART I: Markets are awesome



ADAM SMITH, 18th century Scotsman, father of economics, author of *The Wealth of Nations*...

"It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own self-interest. We address ourselves not to their humanity but to their self-love, and never talk to them of our own necessities, but of their advantages"

Smith believed that individuals, acting out of self-interest, would exhibit behaviors that would unintentionally benefit the rest of society. For example, a baker creates delicious breads because he wants to profit. This selfish motive for profit serves the customer well: in order to profit the baker must appeal to your wants and desires.

Do it efficiently

How do we know that resources owners (businesses) will use their resources in the most efficient way? If they don't do this, their product will cost more, or be of poorer quality and they will lose customers – more importantly they will lose profits. Eventually the business will fail, the bakery would be sold and those resources would be deployed elsewhere in the economy by someone willing and able to do it better, or do it differently.

Make the correct stuff

How do we know that businesses will make the things that consumers want? The answer is profit, business owners want to use their resources to profit, and that requires that they make the stuff that people want to consumer.

Make the right amount of stuff

How do markets direct resource use towards the correct number of cars, bread and horseshoes? Prices. Consumers make decisions about what to consume by considering the utility (marginal benefit) that they receive from the product. When utility received from the automobile increased, there was a simultaneous decrease in the utility for horseshoes. The result: more of society's scarce resources were directed towards making cars, fewer resources towards horseshoes. If people suddenly derived greater satisfaction for riding horses, WalMart would be selling horseshoes next week.



Greed is good?

From the character Gordon Gekko and the film Wall Street (1987)

"Greed, for lack of a better word, is good. Greed is right. Greed works. Greed clarifies, cuts through, and captures, the essence of the evolutionary spirit. Greed, in all of its forms; greed for life, for money, for love, knowledge, has marked the upward surge of mankind and greed, you mark my words, will not only save Teldar Paper, but that other malfunctioning corporation called the U.S.A"

Smith believed that when individual producer and consumers are able to freely act in self-interest, a market would be created and the market outcome (buying and selling stuff) would benefit all of society. Market participants benefit from the trades made. Non-participants do not benefit from those trades *but are not harmed*. SINCE all the costs & benefits are private to the baker and the buyer of the bread, we can also say that the baker and buyer's costs/benefits are equal to the cost/benefit to all of society. If there are no costs/benefits to those outside the market (external to the market), then private cost/benefit = societal cost/benefit.

When people participate in markets, they judge how much to produce/buy according to THEIR marginal benefits, and marginal costs. And since we assume that there is no external cost or benefit to others, market participants must be correctly choosing the right products and the correct quantities.

- The baker is judging his output on his costs. The theory assumes that he is the only party experiencing the costs of production.
- The buyers of bread are judging their demand on their utility/benefit for the good. The theory assumes that buyers are the only party experiencing benefit from consumption of this product.

A belief in markets lies at the core of capitalism. Markets harness human's innate self-centeredness to create wellness. Markets are pretty awesome. See it work below.

Markets, Efficiency, Deadweight Loss and Market Failure

SL/HL 2.1 / 2.2 / 2.4

Before we consider how and why markets sometimes fail us, we need to again consider how and why they work. The theory suggests that markets - supply/demand/price mechanisms - work with human nature to bring about the most efficient uses of scarce resources. The better we use our scarce resources, the more society can consume - the better our standards of living can be.

Efficiency:

Generating the most possible satisfaction from a given amount of resources. With efficiency (allocative efficiency), society cannot change the way resources are used in any way that would increase the amount of satisfaction obtained by society. SO, if we can improve our resource allocation, then we have NOT achieved efficiency - society could be better off.

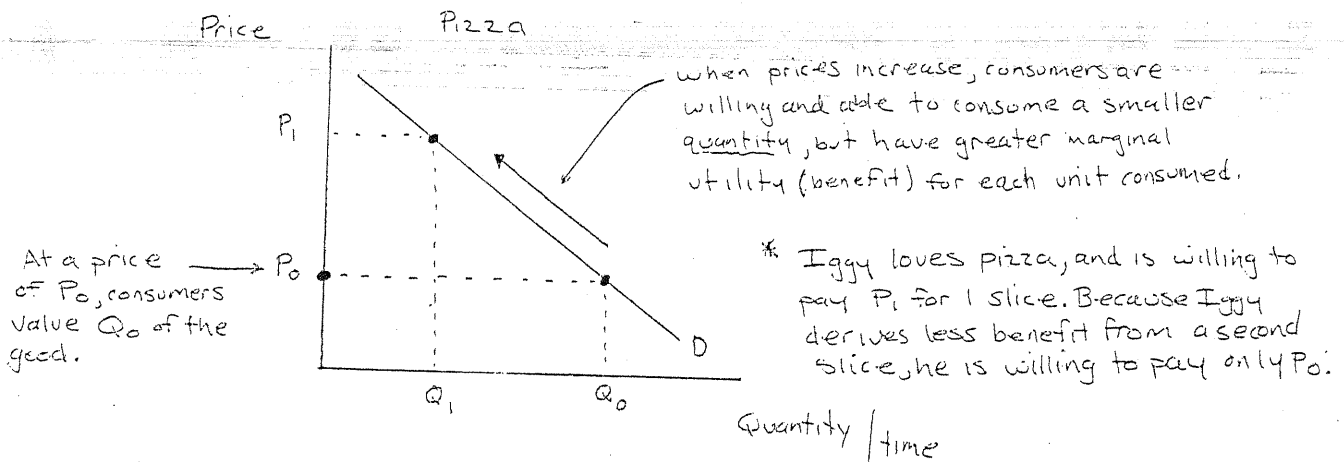
What to produce
How to produce
For whom to produce

Limited Resources are being used by private property owners in order to maximize benefit which causes people to produce what/how/for whom - in the most efficient manner.

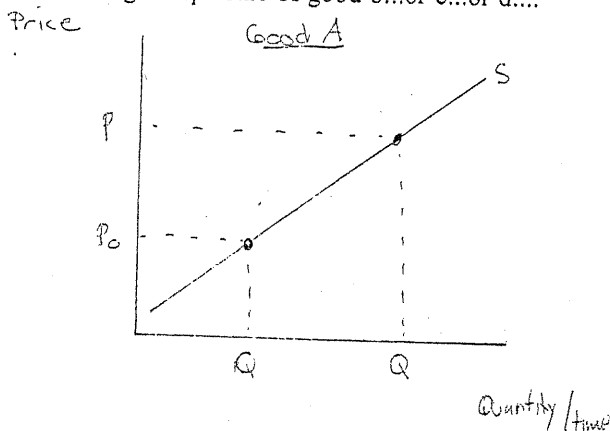
Competitive Markets:

The buying side of a market (demand), reflects the willingness and ability to make a purchase. Demand indicates the satisfaction received by society when a good is consumed. When you buy something, you are 'voting' for it - you are voting for resources to be used to product THAT good.

*A Demand curve shows us value/benefit



The selling side of a market (supply), reflects the OPPORTUNITY COST of production. In particular, the supply price indicates the value, in terms of satisfaction, that society forgoes from other goods that are not produced. When a supplier produces a quantity of a good, then MUST use resources - these resources CANNOT be used to make ANYTHING else. The OpCost of production is what we must give up. When good A is produced, we must give up some of good b...or c...or d....



To produce Q_0 of Good A, society must allocate resources that could be used to make something else. The cost of these resources is equal to P_0 - and is the lowest sale price that the supplier could sell.

The S curve shows us the value of the resources used to produce the good. If society wants more of the good, it must give up more of A, but less of something else...

Marginal Analysis

Marginal Analysis involves comparing the benefit of doing a little bit more of some activity with the cost of doing a little bit more of that activity. The benefit of doing a little bit more of something is what economists call marginal benefit, and the cost of doing a little bit more of something is what they call its marginal cost.

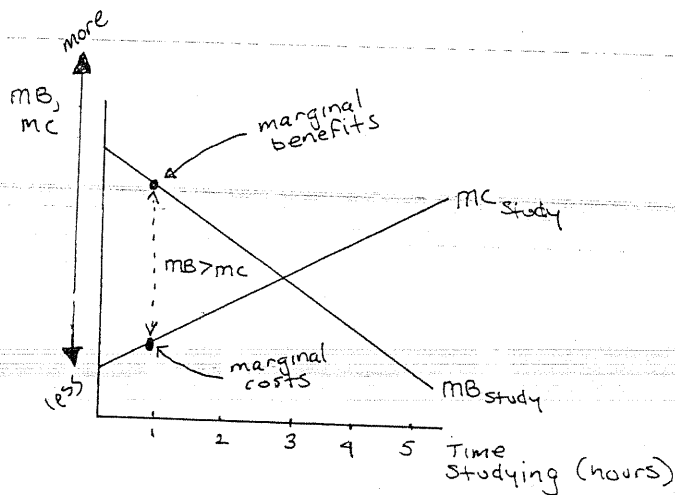
STUDYING FOR THAT BIG TEST (or tests)

What is the right amount of time to study for a test? In economics, the "right amount" of anything is the "optimal" or efficient amount and the efficient amount is the amount of which the marginal benefit (MB) equals the marginal costs (MC). Stated differently, you have achieved efficiency when the marginal benefits equal the marginal costs.

Achieving Efficiency:

Suppose you are studying for an econ test, and for the first hour of studying, the MBs are greater than the MCs:

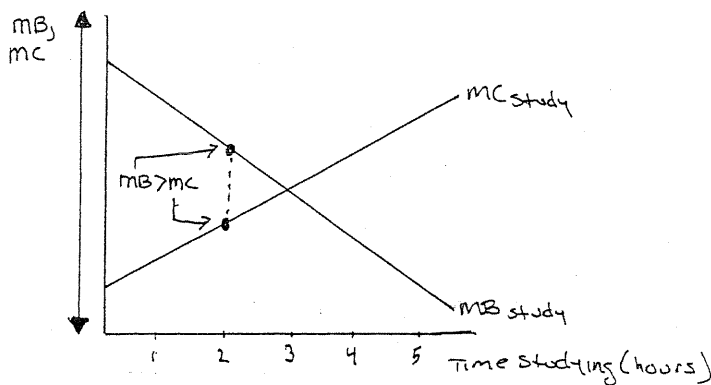
MB studying first hour > MC studying first hour



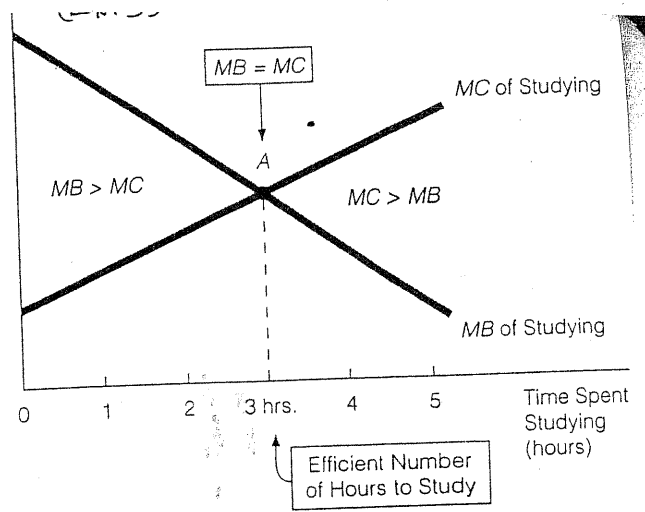
Given this condition, you will certainly study for the first hour. After all, it is worthwhile: the additional benefits are greater than the additional costs you incur, so there is a net benefit to studying.

Suppose for the second hour of studying, the MB are still greater than the marginal costs (although the benefits ARE NOT as great as the first hour).

MB studying second hour > MC studying second hour



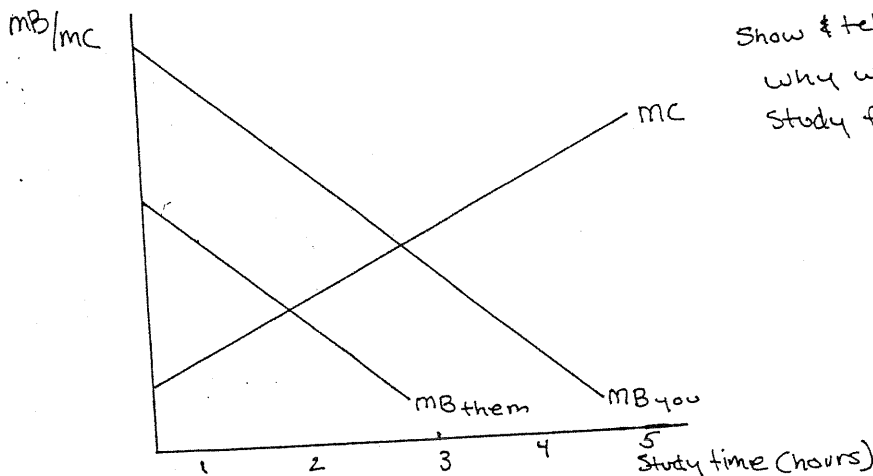
??? Why does the MB decrease from hour one, to hour two? You will study for the second hour because the additional benefits are still greater than the additional costs. In other words, it is worthwhile studying the second hour. In fact, you will continue to study as long as the marginal benefits are greater than the marginal costs. (Exhibit 3).



The MB curve is downward sloping because we assume that the first hour is more beneficial than the second hour (diminishing marginal utility - see section 1 in McGee). The MC curve of studying is upward sloping because we assume that it costs a person more (in terms of goods forfeited - or time spent studying math, or because of diminishing marginal returns) to study the second hour than the first, more to study the third than the second, and so on.

In exhibit 3, MB of studying equals the MC of studying at three hours. So, three hours is the efficient length of time to study in this situation. At less than three hours, the MB of studying are greater than the MC, and so at all these hours (1-3), there is a net benefit from studying. At more than three hours, the marginal cost of studying are greater than the marginal benefits, and so it wouldn't be worth while to study, because you feel that you will be giving up too much (costs).

Consider the exhibit below. This student is not as concerned with their academic success, and they like PE, so Economics is not so important for them. They aspire to become a mall guard some day. Notice, this person has a different MB curve (known as a demand curve) for studying. How much time will this person spend studying for economics? Why won't they spend more? Is this efficient?



Show & tell:
Why wouldn't this student (MB them) study for 3 hours?

Maximizing Net Benefits

Take another look at exhibit three. Suppose you had stopped studying after the first hour (or after the 60th minute). Would you have given up anything?

Yes, you would have given up the net benefits of studying longer. To illustrate, notice that between the first and second hour, the MB curve lies above the MC curve. This means there are net benefits of studying the second hour. But if you hadn't studied that second hour - if you had stopped after the first hour - then you would have given up the opportunity to collect those net benefits. That is like passing up money lying on the sidewalk! You wouldn't study

for longer than three hours, because after the third hour, the benefits decrease and the costs increase. After three hours you are actually losing. Your benefits (grade perhaps) will increase just a little bit more, but you will be given up other things that make you much happier than the small increase in your grade.

MB = MC Know it, Love it, Live it (but don't be a dork about it)

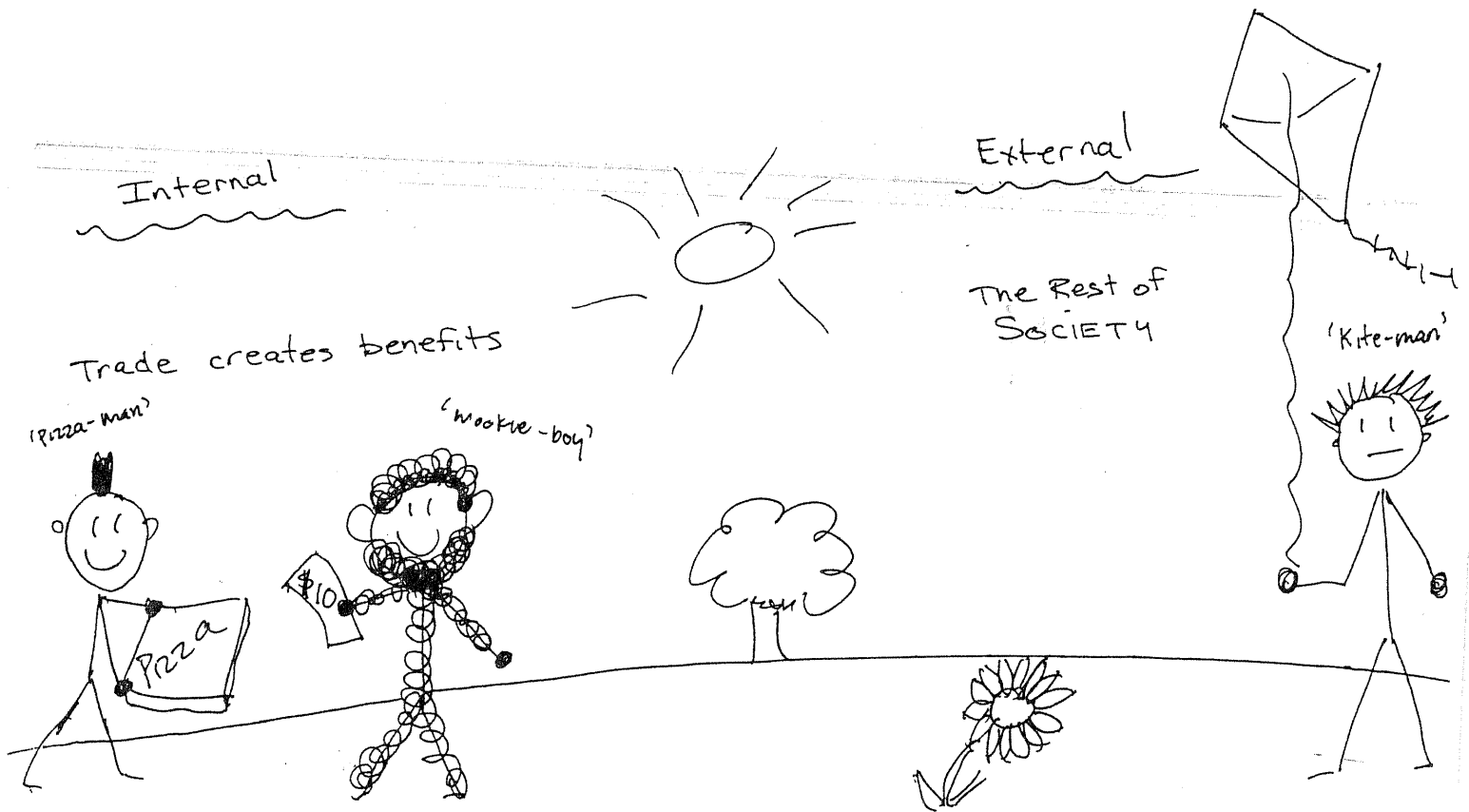
The MB and MC curves look curiously similar to the model of supply and demand. That is only because they are. The Demand curve is really a MB curve. In the market for Pizza, the demand curve is really just a schedule of marginal benefits to those who demand pizza. The supply curve is really just a MC curve, it shows the MC of the producers of pizza in this market. The curves slope upward/downward for the same reasons as the above examples. Where $MB = MC$, the market is efficient (usually).

Consider all demanders and all suppliers for pizza on Rokko Island. These consumers/producers engage in trade because it is mutually beneficial to them. The supply/demand diagram helps us to model that the efficient quantity to produce is where $MB = MC$, or where $Q_d = Q_s$. Those INTERNAL to the market are gaining. people who have \$10 would happily trade it for pizza. Producers who have pizza will happily trade it for \$10. There is a NET BENEFIT for both parties, as both are better off than they were before the trade.

When some people engage in trade and benefit, without causing costs to others, then society as a whole WINS! Think about it: when wookie-boy and Pizza-man wins, they receive benefit. Their lives are better! Kite-man is not hurt at all. Since those who are part of the market for pizza are also part of society, then it is appropriate to say that society benefits from these trades. Some people are better off, while no one else is worse off. Trade creates gains for society. And that is why markets are efficient, and why they do a good job of creating economic gains for all of society!

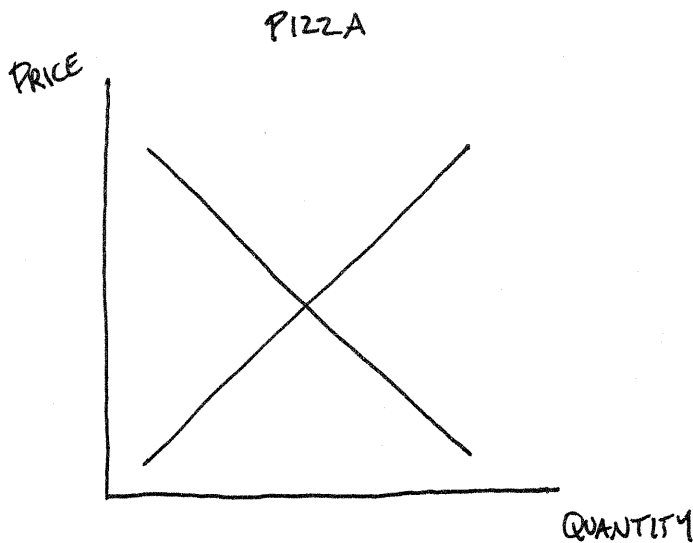
Taking this one step forward, we can now talk about the marginal social cost, and benefit of pizza. If the consumers of pizza benefit (and no one else) then their benefit must be the social benefit of pizza in a society. Each pizza that is consumed provides benefit to society. Below, the Demand curve has been relabeled, now its the MARGINAL SOCIAL COST curve - because the MB from consumption of pizza is the total societal benefit from eating pizza! The Supply curve is the MC curve for producers. Since the producers bare the total cost of producing pizza, it is appropriate to say that the supply curve is also a MARGINAL SOCIAL COST curve. So, unless there are costs/benefits that fall on those outside the market, each transaction (demonstrated by S & D curve) shows us the cost and benefit to society. And since we know that $MB = MC$, then it must be true that $MSB = MSC$, and this is the most efficient level of pizza for all of society.

$MB = MC =$ Efficient Allocation for Market
 $MSB = MSC =$ Efficient for all of society



It should be clear to you that those INTERNAL to the market are benefitting. But what about Kite-boy? He is part of society, he is external to the market (not a consumer/supplier of pizza). Does he receive any benefit, or bare any cost when pizza -man and wookie-boy trade? No, he receives NO BENEFIT, but he doesn't bare any COSTS either. This transaction neither hurts, nor benefits him.

Q: How would we show the pizza market? Hint: if there are no externalities, the market participants behave in a way that achieves allocative efficiency.



Remember

$D = MB$ or MPB (private)
 $S = MC$ or MPC (private)

If there are no externalities
 then:

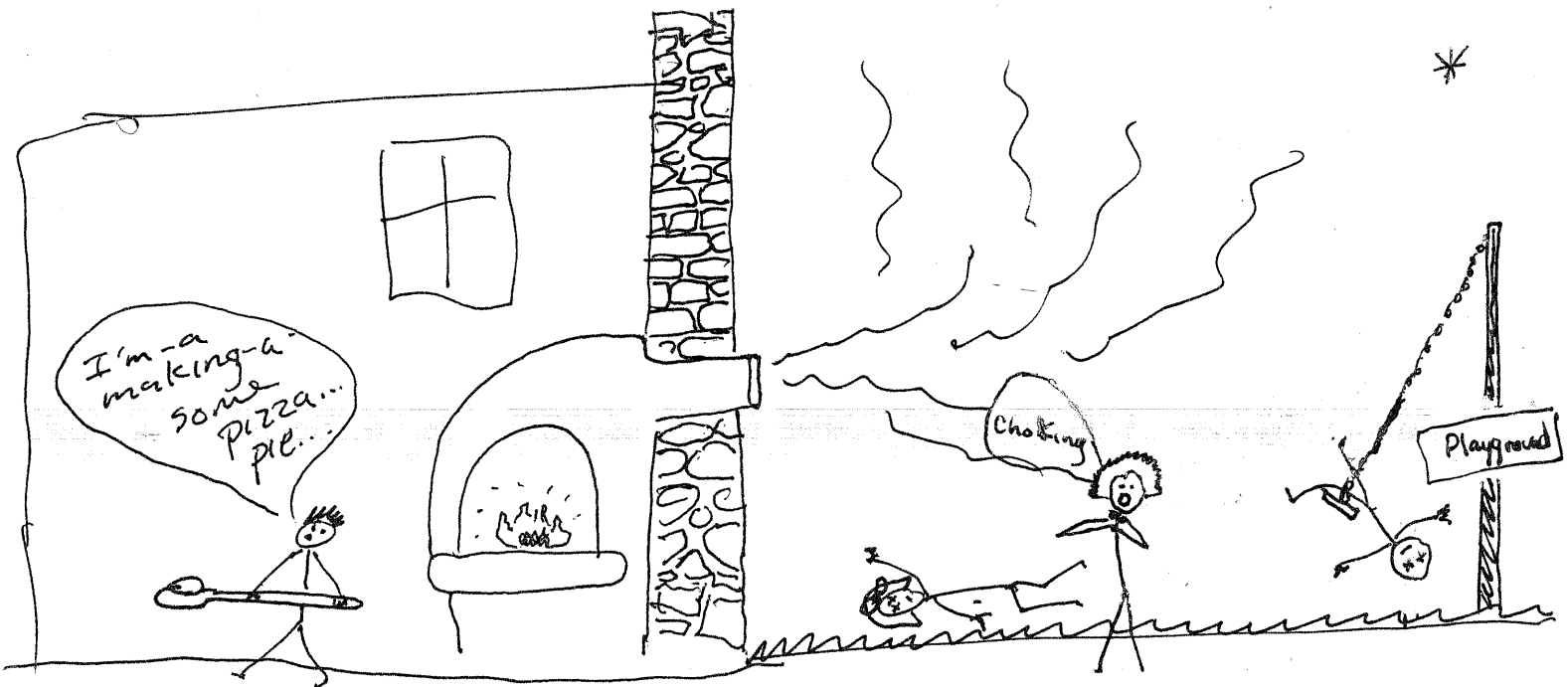
$D = MSB$ (social)
 $S = MSC$ (social)

PART 3: WHEN MARKETS FAIL

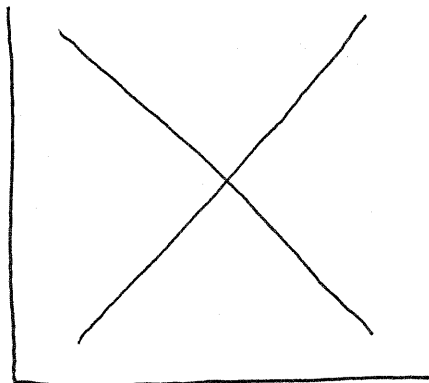
Smith and those who embraced market capitalism failed to question an assumption embedded in market theory: that the consumers and producers of a product are the only ones who benefit or suffer costs of that consumption/production.

What if the producer of a product does not feel and pay for all the costs of production? What if consumption of a product by one person causes pain for others? When this happens we call it **NEGATIVE EXTERNALITIES**.

Is the market outcome allocatively efficient if there are externalities? Consider the following, then show and describe:



**Let's assume that the buyer of pizza receives all of the benefits of the pizza. There are no external benefits from consumption. Therefore, consumer marginal benefits are equal to society's marginal benefits. What about costs?



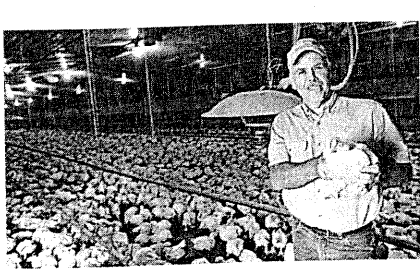
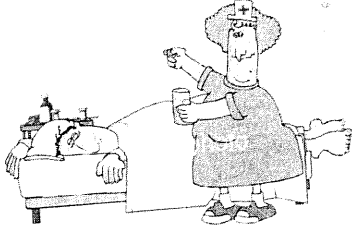
would:

- $D = MPB$ or MSB ?
- $S = MPC$ or MSC ?

* no children were hurt making this handout

As recently shown on PBS Frontline (Oct. 14, 2014):

Consider the market for chicken (or beef, pork...). See if you can put the story together using the pictures below. Show this market if it is an example of market failure.

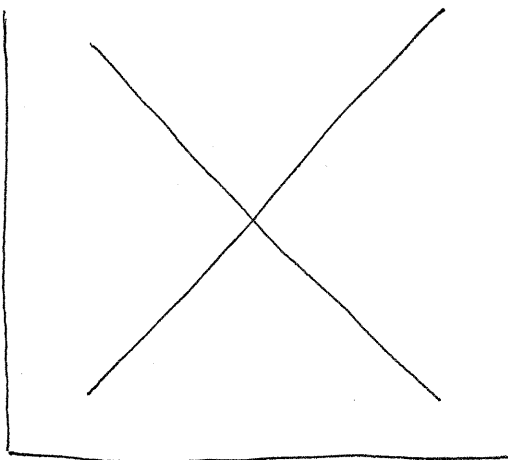


Drug-Resistant Bacteria on Chicken: It's Everywhere and the Government Can't Help

• BY MARYN MCKENNA 12.19.13 | (AS PUBLISHED IN WIRED.COM)



Price



Quantity

