

## Marginal Analysis

Economists look at how costs and benefits change as there are small changes in actions. We call this marginal analysis, and it is perhaps the key concept in economic analysis. It is an acknowledgement that people (should) make a decision based on the incremental gains and losses that result from that decision, and that sunk costs (money, time or other things of worth already expended and unredeemable) should not matter.

Marginal analysis, quite simply, balances the additional benefits from an action against the additional cost. In any case, be it a firm deciding whether or not to expand production, a student deciding if another hour of studying is a good idea, or a professor choosing to give an extra exam, optimal performance requires that benefits and costs be equilibrated on the margin. What this means is that if the additional benefit exceeds the additional cost, take the action. Keep taking it as long as the benefit exceeds the cost, and to ensure that all excess benefits (those that exceed costs) are accrued, do it until, for the last action, the benefits just equal the costs.

People seem to violate this maxim all the time, counting sunk or fixed costs in decision making. Politicians and bureaucrats might do it because the cost of not doing so may include being accused of wastefulness, not being careful guardians of the public's fiscal well-being. Individuals often go to shows or take trips that they claim they do not want to because they have already bought the tickets. That is the key, since the tickets have already been purchased, the marginal cost of attending is probably very small, just some time and exertion. The potential gains from the trip; the enjoyment from the activity, must be high. We know this because when buying the tickets, the cost was high (it included the dollars spent) so the expected benefits must have been high as well. Now, although the expected benefits might be diminished somewhat by weariness, the costs are significantly lower, as the ticket price is excluded, the costs are only the time spent in the activity, so the expected net benefits are still positive.

1. Scarcity forces individuals, firms, and governments to make choices. How do rational decision makers make decisions?
2. What is meant by the phrase, "optimal performance requires that benefits and costs be equilibrated on the margin"?
3. How do individuals violate the concept of thinking at the margin?

Source: "Marginal Analysis." School of Economic Sciences. 22 August 2009  
<<http://www.ses.wsu.edu/People/faculty/rosenman/dist301/Margin.htm>>.