

OPPORTUNITY COST

What is opportunity cost? Is it real? And why do we need to be concerned about it?
These are all good questions that are hopefully answered below.

Let's say that you have \$1,000 dollars you plan to invest into a lawn mowing business. The first question to ask is "*where is this money today, and what return is it earning?*" If your lawn mowing business can not beat the risk adjusted return that you are currently earning on this \$1,000, then you should not invest it into the lawn mowing business. If your \$1,000 is currently invested in U.S. treasuries ("Risk-free" investment), removing your money from the U.S. treasuries and investing it into the lawn moving business is an opportunity cost, for you are foregoing your earnings from the U.S. treasuries. You are also assuming more risk by moving your money into the lawn mowing business, so will need to earn a higher return.

But what if your \$1,000 was sitting in a non-interest bearing account? Is there still an opportunity cost? The answer is yes, and it might be the same U.S. treasuries even though you did not invest in them originally. The reason is that you could have invested in them, and can still invest in them now - so they are an alternate investment to the lawn mowing business. The key is look for the next best alternative, and assess the risk/return relationship of that investment relative to the risk/return of the investment you are contemplating. An easy way to do this mathematically is to subtract the cash flow of your alternate investment (U.S. Treasuries in this case) from the cash flow of your lawn mowing business, before discounting for an NPV and IRR.

An opportunity cost is your next best alternate investment, and you must always take it into account when valuing an investment opportunity.

What about when you are comparing two mutually exclusive investments? Since the same opportunity cost will be applied to both projects equally, the choice between the two mutually exclusive projects will be independent of the opportunity cost. But after you have selected the most valuable project between the mutually exclusive projects, it will still need its opportunity cost removed from its cash flows to assess its true value/return.

Once again, the way to account for the opportunity cost is to factor its cost into your investment's free cash flow model. After removing the opportunity cost from your independent investment's free cash flows, if that investment can still beat the hurdle rate set for it, then it is a good investment.

Opportunity cost is the reason that real returns are a better way to look at investments than nominal returns, because real returns use the risk-free rate as the opportunity cost of the investment.

Opportunity costs could also be a non-financial decision, such as an economic utility decision. Even though two options are close in NPV and IRR, you may still choose one

over the other due to the utility obtained. An example would be two houses you are considering to purchase. This is obviously a mutually exclusive decision, since you will only purchase one house, but opportunity costs can still come into play. Lets say that one house is larger but is on a small lot, while another house is smaller and is on a large lot. Both may cost the same, but your personal utility of a larger house versus a larger lawn, and how you prioritize this utility, will finalize your choice. If you purchase the small house, your opportunity cost is the utility lost by foregoing the larger house, and if you purchase the larger house, your opportunity cost is the utility lost by foregoing the larger lawn. Which ever utility loss is the greatest (i.e., the larger opportunity cost), will result in your selecting one house over the other.