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“Budget constraints, indifference curves. Including assumptions such as transitivity, completeness and more is better. Diminishing MU”

Budget constraints are a fact of life for most people. In a simple example of how they impact our lives, consider having a 150.00 per month budget for entertainment and that you like to go to movies and go out to dinner. If a movie costs 30.00 each trip (including popcorn, transportation and tickets), you could attend the movies five times per month. Your favorite restaurant costs 50.00 each trip, including meals, transportation and tip, so therefore you could have dinner out three times per month. However, you couldn't have dinner and a movie five times per month, or even three as the more you perform of one, the less you have to perform of the other. The next thing to consider is does one make you feel more complete than the other, would you be willing to give up one for the other and to what extreme - do you have a higher degree of indifference for one or the other?

I am facings a budget constraint of sorts at work. I have, as of Friday November 11, 2011, been given oversight of an additional seven people. However, the area that needs to be covered is one that must be open every day of the year and 24 hours per day. If I budget people versus shifts, it will work, but without any available people to cover vacations or illness. My best solution to this is to go before our hiring committee to see if I can get more people approved to be hired for the area. Obviously I am feeling that more is better, but yet if we had 20 people in this area it would have a greatly diminishing return as there would be the potential for wasted assets (human captial). Therefore a balance must be achieved and strong case presented to achieve the goal of additional employees. Any additional employee is still going to prove to show a deficit as the budget has already been submitted for the coming year and it didn't include one person, let alone the additional four that I plan to request. The departmental budget does not factor in any additional people and I am hoping that the amount budgeted in overtime will not be needed and can be put forth for this cost by line item allocation.

The result of the hearing was that I was approved for 1.4 persons, meaning someone to work 7 days a week for a total of 14 days. The committee left it up to me to divide this up. I therefore had to figure which would give me the greatest return on the investment; one person working 80 hours and another only 32 hours or one person working 64 hours and another 48 hours in a pay, or three people and so on and so forth. I also had to consider what each person may desire as benefit package rates are tied to hours worked. I had a budget constraint tied to number of hours I could have people work. Do I feel any sort of transitivity? Do I like all the options the same so that I do not have a preference? Honestly no, as I have to figure in many factors, all options are not equal to me in this case. If you asked me about which cake flavor do I prefer between chocolate, yellow and lemon, then I would be in a state of transitvisity as I like them all equally, but I did not like all the choices I was coming up with for my division of 1.4 people. Instead I have to work on a form of completeness where one option plus another option will give me the maximum effectiveness and flexibility.

Yet another way to think of the budget constraints in real life and studied in by Elizabeth Weber Handwerker in Industrial and Labor Relations Review is that in which often parents have tried to set x number of dollars aside for their children's education through college. The economy has forced the examination of many plans for both students and parents. Ms. Handwerker finds that parents are working longer, especially older parents and less likely to be collecting on retirement. It is their constraint of budgeting of their time that is at issue here. Here again is a constraint based upon time.

Budget constraints are essentially what a consumer can buy and is restrained by income or funding, so basically trade-offs that we all must make. Do we buy two pairs of shoes and spend $100.00, or do we forego the shoes and spend the money on multiple small dinners, or one elaborate dinner? The constraints are found not just only in our own pocketbooks, but that of business. Do we invest in a linear accelerator or a new MRI machine? Do we hire 2 more people, 4 part time people, or invest in technology to make their jobs easier. No matter where this is faced, there is not usually an easy decision to be had.

However, if a consumer has equal preference for bundles of goods, items or services then they are indifferent to the choices and they get the same level of satisfaction between the two. Indifference curves are used in conjunction with budget constraints since it is the budget constraint that dictates what a consumer will be able to purchase. However, indifference curves can be utilized to show a myriad of things, including charitable donations.

“To test the theories, indifference curves were constructed that “expressed individual preferences between donations and heir distributions. Incentives, Preferences, and Hypotheses

ONE CAN RANK HEIRS, including charities, in order of preferences for bequests, and divide the estate accordingly. Allocations among heirs share a common property. Given an estate tax with rate t, only the fraction (1 - t) of each $1 allocated to heirs actually reaches them, i.e., the sum $1(1 - t), while qualified charities realize the entire $1. This arithmetic may induce some taxpayers to favor charities over heirs. Ifthe taxpayer is seeking the biggest “bang for the buck,” his choice is to allocate his entire estate to charity: for t > 0, $1 is always greater than $1(1 - t), but few taxpayers behave like this. It would be, of course, naive for the taxpayer to compare $1(1 - t) to the $1 given to a charity. It is well known that the relevant comparison is the taxpayer’s utility of the sum $1(1 - t) transmitted to the heir, to the taxpayer utility obtained from the charitable output that the $1 donation brings forth. Other than the suggestion that, in response to a decline in tax rates, pressure might be put on marginal donors to reduce donations, it is difficult to discern financial incentives for donations in the estate tax.” The Center on Philanthropy at Indiana University (2006) conducted a survey of 945 wealthy households whose annual incomes exceeded $200,000 and/or net worth was at least $1,000,000. Thispoll, the most extensive on the subject conducted to date, reported that 56.1 percent of those responding would not alter planned donations if the estate tax were eliminated, while 29.5 percent said they would increase donations, either somewhat or dramatically. Thus, a very significant 85.6 percent of all respondents indicated that they would either increase or maintain their donations, while the proportion stating they would decrease donations was 5.5 percent. Despite the obvious caveat that people may not behave the way they originally indicate, these results agree with our theoretical and empirical conclusions. (Bernanek,Kamerchen,Timberlake)

The study proves out the theory that the people will increase donations should the estate tax rate decline or personal exemption increase. It also proves out theories for wealth accumulation hypothesis that donation behavior is typical over a lifetime. This study does disagree with previous findings of nwph that an increase in the tax rate leads to an increase in more donations.

So, with the use of indifference curves, it helps support the theory that if people are prone to give to charitable causes, they will do so no matter the tax rates, etc – basically supporting the premis that those in the upper income brackets are going to give to the heirs or causes that will give them more “bang for their buck”, which utilizes the same thinking and philosophy that led them into having incomes high enough to be in the upper income brackets.”

This begins to move into the law of diminishing utility where marginal utility from consuming equal units of a good eventually declines as the amount consumed increases. Take for example the declining marginal utility from water as you drink more and more during a given time interval occurs. It might be plausible for someone running in a race, such as a 5k on a warm summer day, would be willing to pay 5.00 for a bottle of water at the end of the race (if it were not made available for free). However, the second bottle of water might not hold such a high value for the racer as their thirst has been somewhat sated. The third bottle of water would hold an even less value to the racer and so on. In testing this theory and while trying to get back into the swing of fitness and doing 5k and perhaps a mini marathon, I worked on my running time on the treadmill. After one mile, I would have gladly paid 5.00 for a bottle of water had I not been at home, however as I drank the tap water, I realized that my thirst was being sated and my perceived willingness to pay for water was quickly diminishing.

In light of this, consider this following excerpt:

"In his classic 1958 book The Affluent Society, economist John Kenneth Galbraith argued that a society that had evolved into luxury would witness "diminishing marginal urgency" for goods. In this play on the standard "law" of diminishing marginal utility - the idea that a good loses value as its ability to improve our lives decreases - he sought to plot the economic limits of luxury.

At a certain point, he felt, even super-wealthy people would no longer feel compelled to acquire more, because the overall enjoyment that resulted from acquisition would decline toward nil. Mr. Galbraith was wrong about that, and the Labour Day weekend is as good a time as any to reflect on why.

Back in 1958, the working week had been declining for more than a century as employers and governments allowed more vacation time and statutory holidays. Labour Day, the most venerable of the latter, has been observed in Canada and the United States since the 1880s, accepted even by anti-labour politicians as a safe alternative to the anarcho-socialist resonances of May Day.

But that trend did not continue; in fact, it reversed. The nature of work in affluent societies significantly changed, vastly expanding demand for non-manual labour and blurring the line between work and non-work spaces and times. Two-career couples, multi-job careers and multi-career lifetimes are now the norm.

Mr. Galbraith thought, rather romantically, that materially satiated people would seek, rather than more goods, more leisure to enjoy the goods they already had. We have proved the contrary. Since the 1950s, affluent societies have craved more work, more income from that work and more spending of that income - which is now, in a final twist, our primary form of leisure." (Kingwell)

Do we not find this true? Isn't it that people seem to want more and more? It used to be that a 3 bedroom, 2 bath house would be enough, but now people expect to have "McMansions", even after the recent fallout in real estate. It is not only the super wealthy people, but it seems to be most people in general. People seem to feel that more and more stuff add more completeness to their lives, real or imagined.

However, in a paper published in 2007 in Economia, the authors wanted to measure diminishing marginal value rather than utility as "the link between preferences and demand has considerably redefined since the 19th century." The authors conclude that they did have a "powerful" test of their hypotheseis, but that further investigation needs to be done on what kind of goods will have a constant or increasing marginal value. (Horowitz,McConnell)

Lastly, to prove that one must always remember history as that it often replays into the future; in a very interesting and honestly haunting paper from Sept 1, 1930 comes a look at marginal utiliy and the interest rate. "uneven distributions on income seems astonishingly static. But the inequality of the control of the income is constantly growing. In the hands of the directors of corporations who are so rich that the diminishing curve of utility has little meaning lies the power to save and make others save. The use of that power has lowered the rate of interest below what would be rational for people voting at a referedum." (Ingraham)

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