Productive Debt

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How much debt is it reasonable for individuals to undertake? I propose two criteria for answering this question. First, you must be able to service the debt. Second, the debt should be “productive” in the sense that the benefits of the activity being financed are greater than the cost of the debt.

These criteria can be employed to evaluate any kind of debt, whether it be student loans, mortgage loans, auto loans or personal loans. But it is most likely that productive debt will that which finances investments in human capital, like education loans, or financing new business ventures.

Some of the benefits of investment are financial, but not all of them. For example, the financial benefits of education investment include higher income, prospects for more rapid advancement in your career, and perhaps better ability to manage your financial affairs. But there are also substantial non-pecuniary benefits of greater education. While perhaps more difficult to quantify, these benefits should be considered in an assessment of the benefits of taking out loans to finance an education program.

The situation is similar with investment in a home. Financial benefits include imputed rent (you pay rent to yourself) plus housing price appreciation, if any, and tax benefits such as tax deductibility of mortgage interest and preferential capital gains treatment. Non-financial benefits include the pride of homeownership and community. Offsetting these benefits are the financial costs of home ownership including property taxes, insurance and maintenance expenses. In addition, there is a potential loss of mobility. This is of special import for young people not yet fully established in their careers.

What about auto loans? Here you are financing acquisition of a durable good that will provide services for many years (at least we hope so). Enhanced mobility from owning a car may well enable economic benefits that more than offset the cost of the debt and steadily declining value of the car. If so, the auto loan is an example of productive debt.

Today, households have approximately $13 trillion of debt. Most of this is mortgage debt ($10T) and the next biggest chunks are student loans ($1T) and credit cards ($0.5T). How much of this debt is “productive” according to my definition? Answer: most of it. The rate of return on owner occupied housing investment is highly dependent on the rate of housing price appreciation. Overall, housing prices are up at a 5% clip over the past year and I project continued positive low single digit gains. Rental rates are approximately 5% of home values. The sum of property taxes, insurance and maintenance expenses is estimated to be approximately 3% of the value of the typical home. Thus, the after-tax expected return on owner occupied real estate exceeds 5%. Meanwhile, the after-tax cost of mortgage debt is about 3%. Naturally, these calculations vary widely across regions, or even across communities within a region, but on average the expected return appears to exceed the cost of debt, even before attempting to quantify the social or community benefits of home ownership.

Likewise, student loan debt is generally productive if it leads to increased skills and credentials that enhance future income. While this is not true for all schools and programs, and probably not for those students who do not complete their degrees, the overall return to education appears to be quite high.

What about the ability to repay the debt? This depends on the characteristics of the individual and the individual's income stream. If the income stream is stable and assured, like that of a tenured college professor, then greater leverage can be safely assumed. Also, individuals that are frugal can in principle devote a greater share of their income to debt service. Of course, frugal people tend to prefer low or zero levels of debt, and even if they choose to take on substantial debt, will tend to pay it off quickly (for example, see the essay "No More Harvard Debt").

It is generally considered by credit experts that debt burdens (defined as monthly principal and interest payments divided by monthly income) greater than 40% are excessive. According to the Survey of Consumer Finances, in 2010 14% of households had excessive debt burdens. The median household has a debt burden slightly under 15%. The median is not so bad, at least if the debt is productive.

Albert Einstein is reputed to have said that the most powerful force in the universe is compounding. Taking on productive debt can help to get that force working in your favor. However, taking on large amounts of unproductive debt means that the most powerful force in the universe is working against you.

An example of an unproductive debt would be carrying credit card balances in order to support discretionary consumer spending. Sure, you might derive a lot of pleasure from the consumption, but unless this is a very temporary position, your debt burden will grow rapidly.

The bottom line is that in the aggregate household debt levels are not unreasonable. However, about one in seven households carries a heavy debt burden. This is a trap from which it is hard to escape.