

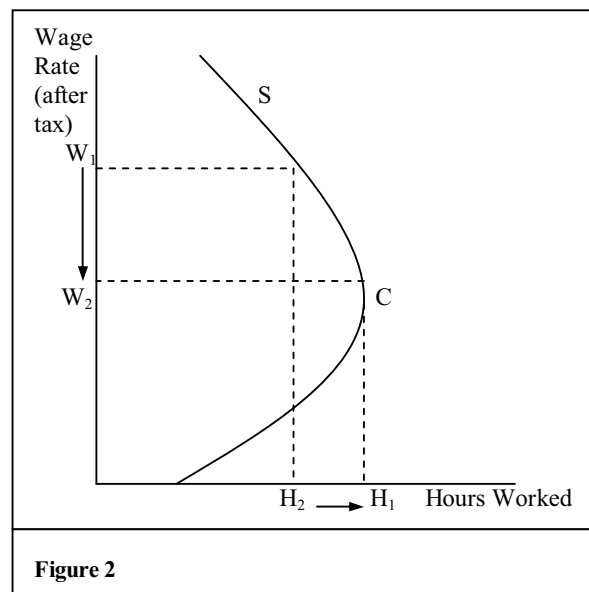
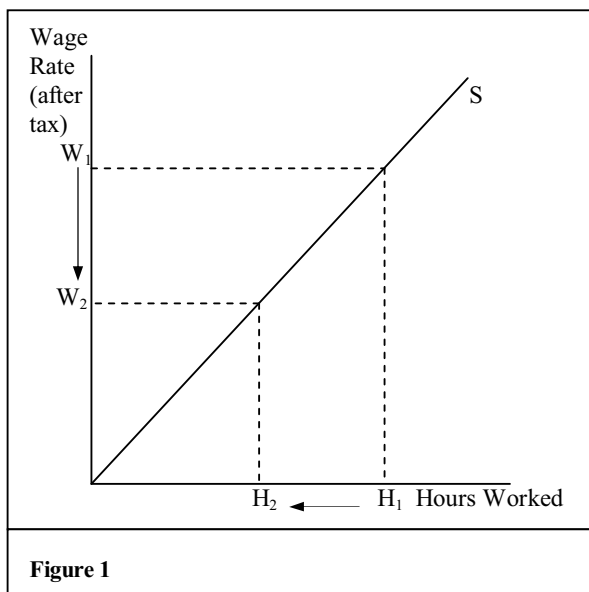
Does income tax provide a disincentive to work effort?

Atkinson and Stiglitz say in their lectures on public economics, ‘neither economic theory nor empirical evidence can provide a conclusive answer to the effect of income taxation on labour supply...the analysis can provide considerable insight’ (1980.) An income tax is taken from earned income and usually deducted from wages of employees by their employers. This type of tax is assessed and collected from the employee and is known as a direct tax.

The economic theory of income tax requires us to look at the supply curve of labour. There are some assumptions that need to be made:

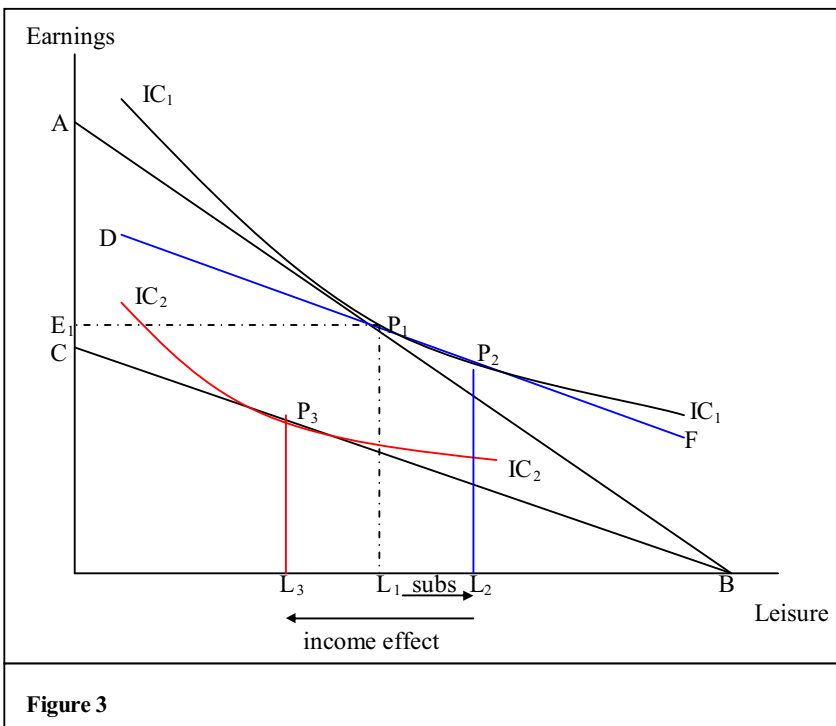
- The individual can vary their hours of work
- There are no non-pecuniary benefits from work
- The income tax is proportional
- The demand for labour is perfectly elastic
- All earnings are taxable
- There is just one wage rate

The individual will choose the optimal combination of income and leisure at the going wage rate (Musgrave, 1959.) A rise in income tax will reduce net wage rates to W_2 (figure 1) this shows that in these circumstances tax is a disincentive to work effort. The marginal benefit of work has fallen and the taxpayer has chosen to substitute some leisure for some of his working time. The supply curve of labour is not always upward sloping it can be backward bending.



In figure 2 if wages rise beyond point c, the number of hours worked falls, they may substitute some work hours for leisure. The diagram shows that an increase in tax, reduces wage rate and leads to an increase of hours worked, here the income effect is greater than the substitution effect. The taxpayer has been made worse off and having to work more hours to take home the same income before the tax was imposed.

Income and substitution effects both influence work effort, though often in opposite directions, as can be seen in figures 1 and 2. Using indifference curve analysis it is possible to see the two affects working. If an income tax is imposed, earnings will drop to point C, lets say that the



individual works harder. To see the substitution effect we must remove the income effect by moving the budget constraint (BC) onto the original indifference curve. There is now a move from P_1 to P_2 , with no income effect and an increase in income tax the taxpayer would substitute leisure for work. The income effect is the remaining

effect of the tax which is shown by the move from L_2 to L_3 . The two effects are working in opposite directions which means we are unable to make a conclusion as to which effect is stronger, but there is other evidence which is less ambiguous that looks into the effect of taxes on work effort.

There are two main types of empirical evidence that look at the effects of taxation on the supply of labour, econometric and survey. Econometric evidence assumes that people react to changes in taxes as they would to any other change. The outcome of the evidence is that taxation has little influence on labour market activity; this is consistent with the backward bending supply

curve (figure 2), for men. The evidence suggests a different outcome for women; an increase in wages is likely to encourage work effort.

Evidence taken from surveys is not always accurate and relevant. People are often prejudiced about the word taxation and dislike it whatever the question may be. Phrasing the questions is also hard; vague questions may not get the desired answer and detailed questions may be leading. Most studies carried out give the general impression that there are both small incentive and small disincentive effects from taxation, the two cancel each other out leaving little proof that income tax is a disincentive to work effort.

Normally the incentive of work effort is driven by the substitution effect, because there are lots of substitutes to work e.g. leisure, travel or education. However, if wages form all or most of the person's income, the income effect will be greater and work effort will increase. This is because at the lower end of the market, the 'poverty trap' occurs. The tax and benefit systems interact so that a person earning more takes home little or no extra money. It is known as the 'unemployment trap' when it is not financially worth taking a job.

Income tax can provide a disincentive to work effort, but it is also quite possible for a rise in income tax to increase the country's work efforts as can be seen by the income effect. The evidence for this can be theoretical and econometric, the theoretical evidence is unable to tell us what the outcome of a rise in income tax will do specifically due to differing forces acting upon the labour market. The econometric evidence gives us a better and more realistic view,

Bibliography

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