

# Social Security – Problems and Solutions

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## Introduction

Social Security-officially called old Age, Survivors and Disability Insurance (OASDI), is the biggest social welfare and Insurance program of the United States. It was begun in 1935. In the beginning, this program was like a private insurance system. In which individual would deposit some money in fund and after he retires he will get the principal and interest earned. But in 1939, this program was converted into “pay-as-you-go” basis. Now this system is funded through a payroll tax. Until 1970, it worked almost good but since then it started facing severe criticism because of the economic effects associated with this type of tax. Although, 1977 reforms made major and essential improvements in its financing base, it did not stop the major doubts about this system. It is generally thought that system has some basic cracks in its foundation, it will go bankrupt soon, it is not fulfilling its objective and it is not a good bargain, etc. etc.

The purpose of this paper is to evaluate these views by discussing the economic effects, nature of payroll taxes and its effects. This paper also provides some of the alternatives of funding this system. In the beginning, a review of the Social Security System is given for a good understanding of the paper.

## Review of the Social Security System

As mentioned earlier, since 1939, Social Security system is converted to “pay-as you-go” basis. Where individual pay a fixed percentage of their earned wages. Fifty percentage of total percentage is paid by the employer and employee each. It is a federal program in which, participation is necessary and it is not mean-tested. To receive the benefits, unemployment, retirement or illness must occur. The benefit payment depends on the contribution made to the fund by the worker. Primary Insurance Amount (PIA) which is basic benefit paid to worker who retires at 65, depends on age at which benefit is drawn and family status<sup>1</sup>. If an individual retires as early as 62 years, his benefits will be reduced to 20% if he works beyond 65 years, his benefits will increase to 3% for each year past 65<sup>2</sup>.

Effective from January 1, 1989, the maximum earnings base for social security and Medicare taxes increased from 45000 to 48000 dollars, The contribution rate for employers and employees for both programs remained as 7.51 percent and for self employed 15.02 percent. Tax credit of 2 percent for the contributions of self-employed has decreased the contribution rate to 13.02 percent. The maximum annual contribution of employers and employees is 3604.80 and 6249.60 for self-employed.

For beneficiaries aged 65-69, annual exemption under the earning test is 8880, for under 65, it is 6480.00. As a result of 1989 social security adjustments, average monthly benefit payable to retired worker increased 516 to 537 dollars, Average monthly benefit for an elderly couple increased from 883.0 to 921.0 dollars.

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<sup>1</sup> Rosen Havery S., Public Finance, Richard D. Irwin Inc. (1988), pp 199-200.

<sup>2</sup> Same as above.

At the end of October 1988, a total of 18 billion in monthly cash benefits was paid to 38,613,372 beneficiaries under this system. Average monthly benefit paid in October 1988 to retired person was 515.92 and to disabled worker was 508.87<sup>3</sup>.

## **Economic Effects of Pay-roll Tax**

As we know that social security program is funded through pay-roll tax levied on the personal wages at a flat rate. It is the second largest revenue source of the government. It has been severely criticized because of its effect on supply of labor, work-incentives, private savings and economic rate of growth. In this section, I will discuss these effects but before I do it, it will be good to examine the incidence and the regressively of the pay-roll tax.

### **Incidence of pay-roll tax**

Pay-roll tax is borne by employee and employer both at same percentage therefore, employee's share in the payroll tax is borne by him alone and employer's share can be shifted forward to the consumer in the form of higher prices or can be shifted to employee in the form of less wages. Because of the fact that pay-roll tax does not make labour more productive, there is no incentive for employers to pay higher wages and because they can not decrease wages instantly after imposition of tax, therefore they are likely to do it by not giving raises to the employees for a long time as they would have done otherwise. The immediate effect will be the higher prices of the outputs.

### **Regressively of the pay-roll Tax**

The main principal behind the equitable taxation is that tax system should be progressive; but due to its regressive nature, pay-roll tax is always criticized. The main point is that it is not a personal tax, it has no relationship to ability to pay, there are no exemptions, there is no allowance for family size and a flat rate is applied every where.

Pay-roll tax is proportional over the low and middle ranges of covered earnings and become regressive above the ceiling level. If related to total income, the burden distribution of the pay-roll tax is initially progressive and then becomes regressive since wage income first falls and then rises as a share of total income when moving up the income scale<sup>4</sup>.

The growing importance of the pay-roll tax in the federal tax structure has been a major factor in reducing the progressively of the system.

So in summary, pay-roll tax is inferior to the income tax in its treatment of people with equal incomes. Income does not differentiate a man's ability to pay, his family responsibility are also important.

### **Effects on Labor Supply**

As we saw that incidence of pay-roll tax will be mostly on employee but if employees start leaving the labour force or start working less hours then employers will not be able to shift the burden on them. In this situation employers will have to bid on wages to attract additional workers, therefore wages will rise again as a result of the tax and therefore less labor will be employed.

If the total supply of the labor is inelastic with respect to small changes in wages, the size of the labor force will not decrease with reduction in wages, same number of workers will be in the labor force working same hours and all the burden will be borne by the employees. But because the wages cannot change in short run, the increase in pay-roll tax will be treated as increase in input prices and this will be passed to the consumers. The higher prices will cause reduction in demand, output and employment.

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<sup>3</sup> For all the factual information used in this section starting from fourth paragraph, see, Social Security Bulletin, Vol 51, No 12 (Dec 1988) page 3-4 and Vol 52 No 1 (Jan 1989) pp. 27-28, U.S. Department of Health and Human Services, Washington D.C.

<sup>4</sup> Pechman, Joseph A. and Benjamin Okner, Who Bears the tax Burden? Washington D.C. Brookings Institution, 1974), pp 59-60.

Therefore we can say that in short run, effect of tax will vary with the conditions in product and labor markets, whereas in long run burden will be on the workers.

## Effects on Work Incentives

Pay-roll tax plays an important role in the decision of working. The decision depends upon the personal choice and preferences. In the working years, work habits are not easily changeable and most of the people can not vary hours of the work in response to variations in tax rate. On one hand, pay-roll tax reduces the work incentive but on other hand, it may provide greater incentives to obtain more income to maintain the same standard of living.

There is no such evidence that pay-roll taxes reduces work incentives. On other hand, social security earning test reduces the work incentives after the retirement (when individuals start collecting benefits) because all the income earned above the earning test ceiling are reduced by 50% plus the pay-roll tax and the income tax is paid.

In 1930, 54 % of the men over 65 were in the labor force, this percentage dropped to 16.3 percent in 1984<sup>5</sup>. Many Economists believe that social security is responsible for these changes, In a study, it was found that social security is the cause of 50 percent increase in retirement rate for older men<sup>6</sup>.

## Effects on Economic Growth

It is understood that economic growth will be faster if the rate of investment rises. If full employment could be maintained, government can contribute to investment by running budget surplus. Such surplus provide the resources needed for private investment.

It follows that social security trust fund can affect the national growth if they add or subtract into national savings. Therefore if the fund is in the surplus, it will add to savings. Therefore if the fund is in the surplus, it will add to savings and economic growth or if deficit, then it will reduce savings and investment, so the growth of the economy.

## Effects on Personal Savings

Before the beginning of the social security program, individual savings were the major protection against the loss of earnings resulting from retirement or death or disability. It is suggested that social security system encourages individuals to save less because it removes a major reason for savings. On the other hand, the availability of social security may provide an incentive for individuals to save more, with major hazards already covered, other saving goals may appear to be in the reach. To see the effects of social security on savings, extended life cycle model can be used.

The basic assumption of the theory is that families arrange their economic affairs so as to maximize total utility over their lifetimes<sup>7</sup>. In particular, households save during their working years to finance consumption during retirement, and in simple version of model, working and retirement phases are of fixed duration. Savings for retirement is a basic need but in a society where social security provides a substitute mechanism for achieving the same goal, instead of saving, household simply contribute in to the fund and receive benefits, in turn, after their retirement.

On the other hand, Feldstein in 1976 says that if the realistic picture is to be drawn, the simple life cycle model should be expanded to allow for changes in the length of retirement period. By inducing earlier retirement, social security indirectly stimulates household savings because family's need to provide for a longer period of time out of labour force. This retirement effect works in the opposite direction from the wealth replacement effect. As the social security system develops, the retirement effect declines in importance and wealth replacement effect dominates<sup>8</sup>.

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<sup>5</sup> U.S. Bureau of Census (1975) p.132 and (1985) p.155.

<sup>6</sup> Sheldon, Haveman, and Plentnick, (Sept 1981), pp. 975-1028.

<sup>7</sup> Modigliani and Brumberg, (1954).

<sup>8</sup> Feldstien (May 1976), pp. 77-86.

Another extension of life-cycle model was made by Barro in 1974<sup>9</sup>. He included family savings made, to provide the “Bequest” to children. Such social savings he said, will be stimulated by an unfunded social security system because parents will counteract the perceived higher tax burdens that such a system may impose on their children.

Another study indicates, (Kotlikoff and Summers 1979)<sup>10</sup>, that Bequest savings will be more important than retirement savings but it is difficult to say exactly how people would relate their bequest plans to the way in which social security system operates, while some of the households may think the system as adding to their children’s wealth in the same way as it has added to theirs, and so they will feel less need to save for bequests. Some may react Barro’s hypothesis described by saving more.

Feldstien in 1979 said that “households might not act in the way described above because they save neither for retirement nor for bequests but they support them, in return, when they retire.”<sup>11</sup> In this situation social security will not reduce savings because none will happen in its absence. This model may be true and applicable in developing countries where families are large and family’s ties strong. As we saw in this section, theory does not provide any final and clear answer about how social security affects household savings, there is need for more empirical studies in this field.

## Effects on Resource Allocation

Already discussed effects of the pay-roll tax were general in the sense that those effects were on all the individuals.

The effect discussed in this section is different from those because this effect is on a particular class which has a choice to choose between work in the market or work at home. As we know that pay-roll tax is not an income tax, it is on the wages earned but if someone works in his home, his income will not be subject to pay-roll tax.

In this section, we will see that with high pay-roll tax individual (as defined above) will work less hours in market and more hours at home. The model used to explain this effect was developed by Harberger in 1974<sup>12</sup>. In the figure 1, hours worked are drawn on X-axis and wage rate on Y-axis. Value of Marginal Product (VMP) is defined as the dollar value of an additional output unit produced for each additional hour worked<sup>13</sup>.

At initial equilibrium, before tax wage rate is  $W_1$  on which  $X_1$  and  $Z_1$  hours are worked in home and market respectively. Now let’s assume that a pay-roll tax is levied on income earned in the market, people will start working more hours in the home and less in the market.

As the people work less hours in market,  $VMP_z$  rises and  $VMP_x$  falls. Equilibrium is reached when  $VMP_x$  is equal to the after tax  $VMP_z$ . In the figure, it happens when people work  $X_2$  hours in home and  $Z_2$  hours in the market because total hours available for work are fixed, increase in home work is exactly equal to decrease in market work. After the tax, at new equilibrium VMPs in both sectors are the same and equal to (1-t)  $W_2$ . Because before tax VMP in market  $W_2$  is higher than VMP in home (1-t)  $W_2$  there are incentives to shift people from home to market but people do not have incentives because they value after tax return which is now equal in both sectors. Therefore I conclude from this discussion that a payroll tax leads to misallocation or inefficient allocation of resources.

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<sup>9</sup> Barro (Nov-Dec, 1974), pp.1095-1117.

<sup>10</sup> Kotlikoff and Summers, (Sept, 1979).

<sup>11</sup> Feldstien, (April 1979).

<sup>12</sup> Harberger, (1974) pp. (25-62).

<sup>13</sup> Rosen, (1988), pp. 308.

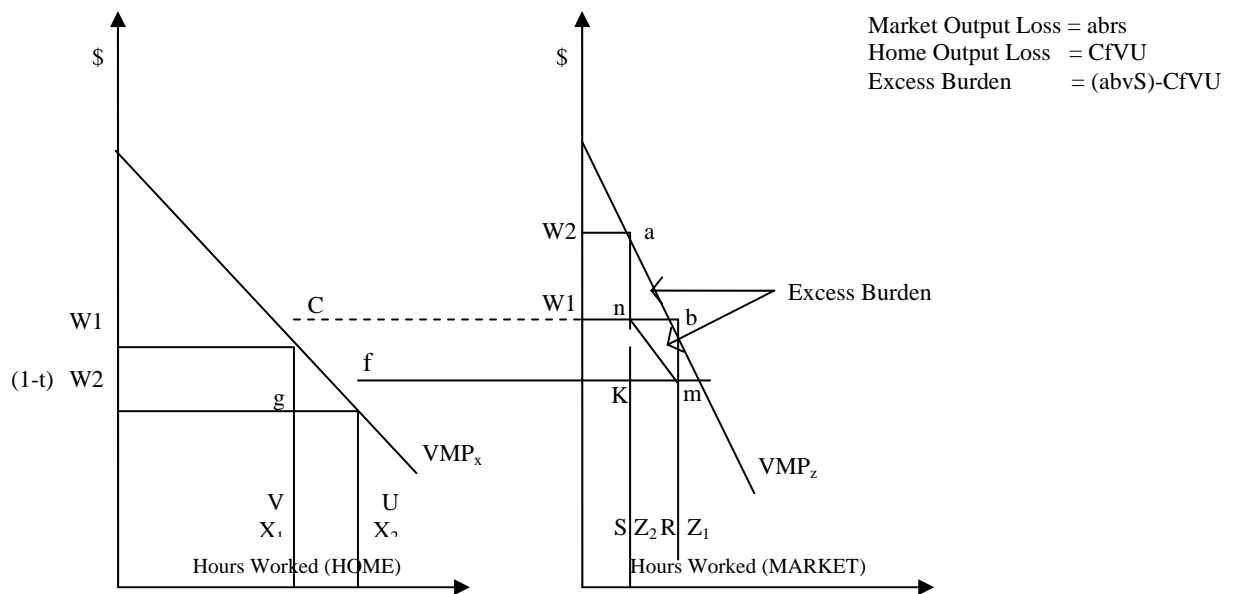


Figure 1: Source:- Rosen Harvey S. *Public Finance*, Richard D. Irwin Inc., Illinois (1988), Page 309.

## Some Rumors about Social Security

In the last several years there have been several rumours about the social security system. It is generally thought that people are losing confidence on this system. The purpose of this section is to discuss these misconceptions and rumours, and try to find the facts about those.

- 1) It is thought that social security system is going to bankrupt because a) Revenues are less than expenditures and b) There will not be enough workers to support each beneficiary. The facts about these misconceptions are that it will not go bankrupt because in the first place, deficit can be eliminated (if any) by higher pay-roll tax by the federal government. Secondly, it can be financed out of Medicare fund. Thirdly, because of the gov't's powers it can be financed through deficit financing. Fourthly, it can be funded through general revenues. If we look into data it tells us that in 1986, social security revenues were \$ 217 billion and it paid \$ 202 billion in benefits, which gave it a balance of \$ 15 billions. If revenues already in hand are added into this amount, it gives the total of \$ 47 billion in balance which is a good amount of money<sup>14</sup>. The second misconception that there will not be enough workers to support each beneficiary. The fact is that now three workers support each beneficiary as compared to 16.5 in 1950<sup>15</sup>. Moreover the total dependency ratio has improved and will continue to improve, therefore there will not be such a problem.
- 2) Because of the fact, that life expectancy is increasing, benefits will be given for more years while contribution will be same, this system will not hold long enough. The fact is that the life expectancy has increased but this was already anticipated, so this gap will be funded through increasing contribution base. In the long run revenues are increasing faster than outlays<sup>16</sup>, so there should not be any problem.
- 3) Social security is not a funded system, it has a deficit of \$ 3 Trillions. The fact is that is not a funded system because it was never attempted to make it a funded system. If it were

<sup>14</sup> Hardy, (Aug, 1987), pp. 5.

<sup>15</sup> Report of committee in congress, (1983) pp.134.

<sup>16</sup> Annual Report, (1982), p. 35.

government would have been required to hold more than the deficit in the trust fund. This is pay as you go system.

- 4) It is thought that it is not a good bargain as compared to private insurance plans. The fact is that if the benefits are adjusted with price Index it will be clear that social security package provides much more protection and security.
- 5) Its thought that young workers will receive less return as compared to their contributions, but this is wrong again because social security advisory council studies (1979) shows that they will receive that same percentage of their earnings in benefits but the contribution ratio may be a little higher.
- 6) It is also misthought that refugees, aliens and other who did not contribute, receive the benefits without a minimum level of contribution and benefits depend upon the level of contribution.
- 7) Wives, widows and spouses who never paid into the fund, receive the benefits. It is true but that is the best thing about this system which other plans can not do, that it provides the complete family protection.
- 8) That social security fund is used to finance wars and foreign aid. This confusion arises because this fund is sometime used to buy Govt. securities, which is misunderstood.

## **Alternative Ways To Finance Social Security**

After having a look on the effects and problems of this system, there is a need for a appropriate type of tax which could finance the benefits efficiently and equitable. Some of the requirements of a good tax system to finance social security benefits should be kept in mind<sup>17</sup>.

- 1) It should be distinct in nature as social security contribution.
- 2) Should be paid by all working population leaving the retirees.
- 3) It should be personal tax and should be income related.
- 4) It should be adaptable to a moderately progressive burden distribution over the lower part of the income range.
- 5) It should be unitary elastic with regard to long run productivity growth and should possess cyclical ability.

If we compare the pay-roll tax of today with this criteria, we will find that it meets the requirement 1 and 5 fully, little bit of 2 but fails the requirements 3 and 4. Various suggested alternatives are discussed below.

### **Integration With Income Tax**

One proposal is to integrate the pay-roll tax with income tax<sup>18</sup>. It will not cause any change in the payroll tax. This will also not affect the financial arrangements surrounding social security itself. Tax would continue to be paid into trust fund. Whether or not this will require an increase in other taxes to offset loss of revenues will depend on fiscal requirements. This means that integration device is extremely flexible and can be used to achieve any desired distribution of burden of social security between payroll tax and income tax.

### **Reforms of Pay-roll Tax**

One method to improve the pay-roll is to allow exemptions in pay-roll tax computations. This will mean that below a certain level, the individual will not be taxed and that proportional pay-roll tax

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<sup>17</sup> Haveman and Margolis, (1983), pp. 390.

<sup>18</sup> Pechman, (1966), Chapter 7.

would be converted to a progressive tax above a certain level. This will eliminate the present regressively of payroll tax. Exemptions can be given on employee or family basis as it is done now in come tax. Since income tax already take exemptions into account, so income tax exemptions plus a minimum standard deductions can be used to compute the total exemptions for pay-roll tax<sup>19</sup>. Exemptions can be applied to both the employers and the employee. Administrative difficulties can arise in calculating exemptions but it will be that flat rate's burden will be reduced on low income's individual.

Another proposal in reform given by Pellechio (1981) is to eliminate the Earnings test because benefits depend upon the past contributions, it should not be decreased with other incomes<sup>20</sup>. The elimination of the earnings test will decrease the disincentives associated with the present system.

## Contribution From General Revenues

This proposal requires that social security should be funded from the general revenues. This need was known right from the beginning when committee on economic security in 1935 reported that benefit will exceed revenues<sup>21</sup>.

In 1938 and 1948, Adisory councils also strongly recommended this proposal. Since then proposal for general revenue financing is given but Congress never passed it<sup>22</sup>.

## Negative Income Tax

Another proposal is to convert the social security system with Negative Income Tax. Since the purpose of the social security is to provide a source of income for disabled and aged, this purpose can be completed with Negative Income Tax<sup>23</sup>.

This system will be more beneficial because it will guarantee a minimum income not only to disabled and aged but also to poors and unemployed. In this system a minimum level of income will be determined. If someone earn less than that level, he will be negatively taxed which mean government will provide him additional income equal to a fixed percentage of the minimum income level.

This system has the same major characteristic as of social security system with the exception that benefit will be paid to all persons below the fixed minimum level, regardless of age, and employment. This proposal is more beneficial and can be financed from general revenues but it will not in itself solve all the problems associated with the present system.

## Contribution From The Budget

Another proposal given by Munnell (1977) is that we should draw a part of the budget to finance the deficit in the social security fund instead of raising payroll tax<sup>24</sup>. This will improve the quality of the tax system.

## Value-Added Tax

Another proposal is to replace the payroll tax by a Value-Added Tax (VAT)<sup>25</sup>, which is simply a sales tax collected in a different way than a general sales tax. The shift in burden with VAT will depend upon the base of VAT. It will be more progressive for the wage earners. The base will be broader for capital income earners and civil servants. This system has less advantages than its costs, so it is not strongly recommended.

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<sup>19</sup> Pechman, (1966), pp. 69-72.

<sup>20</sup> Rosen, (1988), p. 211.

<sup>21</sup> Report to the president.....(1935), pp. 31.

<sup>22</sup> Advisory Council, (Dec, 1938), pp. 6-7 and 24-27 and OASI, (1948), pp 45-46.

<sup>23</sup> For detail discussion on Negative Income Tax, See, Tobin, Pechman and Mieszkowski, (1967), pp. 1-27.

<sup>24</sup> See Munnell (1977), for discussion.

<sup>25</sup> For detail discussion on VAT, see, McClure. and True, (1972), pp. 1-68.

This tax system is again not a personal and is not related to ability to pay. It can be used for other purposes than the social security.

## **Conclusion**

Although social security is well known, neither the nature of social security nor the limitations of this system are understood. However, we should understand what is happening and how does the system work? If both pros and cons are seen, it is clear that social security is benefiting the society more than its costs. Until now, the public has generally been tolerant of social security taxes but we may reach at a point where willingness to pay would be less. The higher the tax level, greater the burden will be on those who are paying into the system.

There are several myths, misconceptions and misunderstandings about the system. People are losing confidence on the system. Several reforms are suggested for the system, each one has costs and benefits associated with it. There is a great need to find the best possible tax source available to finance this system.

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