THE NATIONAL INSURANCE INSTITUTE

BUREAU OF RESEARCH AND PLANNING

THE RELATIONSHIPS BETWEEN SOCIAL SECURITY AND TAXATION: THE MAIN ISSUES

by

Leah Achdout and Yossi Tamir

DISCUSSION PAPER 23

Jerusalem, October 1979

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(In English or Hebrew as stated)

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ACKNOWLEDGEMENT

This study was prepared for the meeting of the research committee of ISSA in Jerusalem in December 1978 which dealt with the relationship between the social security and the fiscal systems. Its purpose is to give a general background for the topics which were discussed in that meeting.

We emphasize the problems involved in these issues, and we try, whenever possible, to point out alternative solutions to these problems. Some illustrations are given from various countries.

This study was done by the Bureau of Research and Planning within the National Insurance Institute.

Chapter 2 relies heavily on Habib's study* which discusses various approaches to taxes and transfers.

We have had the benefit of criticism and suggestions from R. Roter and N. Shamai, and Y. Geva, who also contributed much in refining upon the final version of that paper.

* Habib, J. "An Integrated Approach to Taxes And Transfers", Jerusalem, Falk Institute, June 1979.

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INTRODUCTION

Recent developments in social and welfare policies have seen greater governmental involvement in the areas of income distribution and the guarantee of minimum income. The system of social security and transfer payments on the one hand, and direct taxation on the other, are the main instruments used by governments to affect the distribution of disposable incomes and guarantee minimum income to all families.

The two systems have developed side by side, each having its own administration and its own objectives. However, there is much in common in objectives and means adopted by the two systems. Tax deductions and credits which constitute an important part of any tax system, as well as transfer payments, both aim at guaranteeing minimum income.

Thus, the natural questions which arose, concern the interrelationship between the two systems and whether they can be integrated whenever the same objectives are persued by the two systems, or whether more coordination between them would increase the overall efficiency of government policy.

The following survey discusses the interrelationship between the social security and the tax system and point out the similarities between the instruments and policies used by the two systems.

In addition, we discuss the roles palyed by them in providing minimum income and to what extent various arrangements within the tax system (i.e. tax deductions and credits) deal appropriately with the problem of income maintenance and whether better substitutes can be found within the social security system.

There is much literature concerning various proposals for a negative income tax (NIT). This survey examines esixting tax and social security policies and to what extent they resemble the idea behing NIT. The question has arisen whether an overall solution to the problem of income maintenance can be found by incorporating the tax and transfer systems in a NIT system, or whether NIT should be only an additional instrument to take care of those groups who are not covered by other schemes.

In dealing with the inter-relationship of the tax system and social security, we have to consider the issue of taxing social security benefits. This is closely related to the treatment of contributions. The second part of the survey discusses various alternatives for taxing social security benefits and touches upon the issue of integrating income tax and social security contributions within one system. In discussing these issues we distinguish between income-supplementation benefits subject to a means test and earnings replacement benefits awarded during working life or retirement. This distinction helps in emphasising the differences in the treatment of various benefits under the tax system.

In addition, we point out the arguments for and against the taxation of social security benefits. Illustrations are drawn from the policies of various countries and solutions to certain problems involved in taxing benefits are indicated whenever possible.

1. SOCIAL SECURITY AND DIRECT TAXATION: SYSTEMS OF TRANSFERS AND TAXES

a. Goals and means common to the two systems

The four main goals common to the social security system and the direct taxation are:

(1) To decrease the poverty level by providing a minimum income by transferring incomes to the needy,

(2) To provide for more regularity and stability of family income over the life cycle,

(3) To reduce horizontal inequality[1], i.e. to relate transfer payments or taxation to family size,

(4) To decrease income inequality by progressive distribution of the total transfer payments and taxes.

There are great resemblances between the means used to obtain these goals within the two systems. Firstly, one must emphasize that the two systems are obligatory. One must pay income tax as well as on obligatory social security payment.

(1) Horizontal equality means that families with the same standard of living are treated equally by the tax and transfer systems. It is related to the age composition and the size of families which are the determinants of the standard of living associated with a certain level of income. A comparison of families' standard of living who are of different size is made by using an equivalent scale, that is, we compare the average income of standard adults across families. App. 1 contains a comparison of benefits according to family size given by the two systems in various countries.

One must not forget that, within the social security system there exists an element of taxation, since there is no absolute equality between the payments and the benefits received. In the both systems, there are elements of progressivity. This is observed in the progressive direct taxation. Within the social security system, contributions are regressive, since in most of the cases they are proportional to income up to a ceiling. The benefits, are, to a large extent universal and of a flat rate and hence, low income families receive in the form of benefits, more than they contribute in taxes. Thus, the overall effect of the system is toward more equality in the distribution of incomes.

The two systems provide for more regularity and stability of family income over the life cycle. Within the social security framework, a distinction can be made between benefits whose sole purpose is to supplement incomes and to guarantee a certain minimum level of income to low income families, and benefits which are aimed at replacing earnings during the working or the retirement period. (e.g. disability allowance, unemployment benefit and old-age benefit).

The second kind of benefits is given to those individuals who insured themeselves for temporary or long period of incomes reduction and is aimed at stabilizing the flow of incomes over the life cycle. Within the tax system there are elements which also provide against large fluctuations in the income flow of individuals by allowing averaging of incomes for tax purposes. In addition the progressive tax structure itself has the effect of spreading the burden of taxation

over the life cycle.

b. Policy instruments used by the social security system

In dealing with the interelationship between the social security and direct taxation, we concentrate upon benefits which guarantee a minimum level of incomes. These, can be divided into two main types - selective and universal benefits.

(i) Universal benefit

A benefit is of the universal type if it is paid to certain categories of the population regardless of the beneficiary's income. Whenever such a benefit is untaxable, its net value to the individual depends only upon its level. However, if it is taxed, and the tax rate schedule is progressive, the net value of the benefit depends upon the individual's income.

A universal benefit can provide for a certain minimum to families who have no other sources of income, or supplement income to low-income families. To other families whose income is above the minimum it gives an additional income by considering the individual's ability to pay taxes, and by doing so it contributes to the progressivity of the income distribution. Child allowances exemplify the use of universal benefits that can guarantee minimum incomes to children and reduce horizontal inequalities.

(ii) Selective benefit

A benefit is of the selective type if it is granted only to the poor families and subject to a means test. By its very nature the benefits

level is reduced when income increases. Three parameters determine the structure of selective benefit system: The minimum guaranteed income aimed at reducing the incidence of poverty, the implicit tax rate schedule generated by using the means test in determining the size of the benefit (and effect work incentives), and the level of income by which the benefit vanishes and which determines the size of the eligible population. These parameters are not independent, and by deciding upon any two of them the third is actually determined. Thus, whenever the level of the benefit is raised and the covered population is unchanged, the implicit tax rates have to increase, hence, increasing disincentives to work effort.

c. Policy instruments used by the tax system

The system of direct taxation in pursuing its objectives uses instruments which have much in common with those used by the social security system. The requirement for less inequality in the distribution of incomes is achieved within the tax system by progressive tax rates, that is, the marginal tax rate increases with income, hence the average tax rate is higher, the higher is the level of income. In addition, the tax law contains various reliefs given in accordance with certain demogrants, such as the family status and other characteristics of the individual taxpayer. Those tax reliefs take mainly the form of tax deductions and credits.

(i) The deduction approach

The deductions are certain amounts of money subtracted from total income in calculating taxable income. They can take the form of a

flat deduction or one which is proportional to income.

The first is the more extensively used and consequently would be the one considered here.

Usually, the deductions depend upon family size, the age composition of the income unit and other characteristics. Deductions related to family size aim at reducing horizontal inequalities as do child benefits under social security.

Special deductions are usually given in lieu of unusual medical expenses. Within the social security system a similar role is played by benefits given for covering medical expenses due to work injuries. Those, in turn, depend upon the rate of coverage held by the social security scheme.

Tax deduction also affect the progressivity of the overall tax structure and the vertical distribution of income. In a system where marginal tax rates increase with income, the "value" of the deductions increases with income, since the tax relief given to individuals increases with the marginal tax rate. In other words, tax relief given for children, increases with family income.

The tax deduction, therefore, decreases the effective marginal tax rate and hence, for a given level of income the "value" of the marginal tax relief is negatively related with the size of the deduction itself.

Whenever deductions depend upon family size, the marginal increase

in disposable income is reduced with an increase in family size.[2] For families whose income is below the threshold level, that is, the tax deduction is higher than the family's income, the marginal tax relief is zero.

The deduction approach reduces the progressivity of the effective tax rates as compared with the nominal rates, but decrease the excess burden[3] generated by the income tax, since the reduction of marginal tax rates encourages an increase in labor supply.

An acceptable way of measuring the negative effect on labor incentives is by an aggregated index of weighted marginal tax rates, the weights being the respective incomes. This implies that a reduction in the effective marginal tax rates generated by the deduction method, decreases the index of excess burden.[4]

(2) Using an equivalent scale for standard adults, does require, under certain conditions, that the marginal tax relief would decrease whenever the number of individuals in the family unit increases - a result obtained by the deduction approach.

(3) The excess burden is defined as the social welfare loss caused by imposing tax which is usually connected to a decrease in work incentives.

(4) On the use of such an index for measuring negative incentives, see: Bruno M. and Habib J. "Taxes, Family and Redistribution", Journal of Public Economics, 5, 1976. An alternative approach is based on Harberger's index in which the labor supply is used in assessing the excess burden. Under certain conditions of labor supply that index is a weighted average of the squares of marginal tax rates the weights being the respective incomes.

(ii) *The tax credit approach*

In contrast to the deduction approach where income is reduced by the deduction for calculating taxable income, the tax credit is deducted from the tax liability itself. Usually the tax credit is determined by various demogrants. e.g. family size.

Within an income tax system in which tax liability can be negative, the tax credit is equivalent to a universal allowance or demogrant paid by social security. Demogrants and tax credits can thus be considered synonymous. They might be administered in different ways but the net effect of either on the after tax and benefit distribution of incomes can always be made identical.

The progressivity of the tax structure depends upon the credit system as well as on the tax rates. Whenever a flat rate tax credit is given to individuals, the relief in tax payment is independent of income, and thus, it has no effect on marginal tax rates. It is thus progressive, since, as a percentage of income it decreases with an increase in the income level.[5)]

The "value" of the tax credit is fixed as long as it is not included in the tax base. Such a credit, if the tax liability can be negative values, is actually identical to a universal, notaxable benefit. However,

(5) A qualification is in order here, since the above argument is valid only when the tax liability (before the credit is applied) is higher than the tax credit itself.

when it is included in the taxable income, its effective value decreases with income due to the increase in marginal tax rates.

Taxable universal allowances have the same effect on incomes as tax credit which is included in the tax base, and both are progressively distributed.[6)]

Tax credit which depends upon family size increases disposable income by fixed amounts with the number of individuals in the income unit. In that aspect it is also progressively distributed.

In the above analysis the effect of deductions and credits on the progressivity of the tax structure was discussed under the assumption that these are not related to incomes. Moreover they were assumed to be proportional to family size, the proportionality factor being independent of the number of individuals within the income unit.

d. Problems arising from the existence of two separate systems

Before dealing with the issues involved in integrating the social security and the income tax systems, we will discuss some of the problems arising as a result of two systems pursuing each in their own way, closely related objectives. Naturally, under these circumstances some groups are taken care of by both administrations while others are not covered by any of the systems. These peculiarities arose particularly under those

(6) Under a proportional rate schedule it is always possible to achieve identical results under taxable or nontaxable demogrants simply by changing the tax rate. This is not necessarily true under a progressive rate schedule.

circumstances when the two systems deal with the same group in different ways.

Within the direct tax system the threshold level of income is determined by the tax rates and the various exemptions. The selective supplementary system defines income level by which the benefit vanishes. Whenever the threshold level of incomes defined by the tax structure is lower than the income ceiling defined by the transfer system, there are individuals who simultaneously receive benefits and pay taxes. For that range of incomes the affective marginal tax rates are usually very high (sometimes over 100%) and work disincentives are quite substantial.[7)] Thus, to avoid extensively high tax rates at the very low level of incomes and inconsistencies in the determination of the minimum level of income by the two systems, the two ought to be coordinated. Defining the turning point within the two systems is one of the problems, among many others, connected with the issue of minimum income implied by the two systems. The considerations underlying its determination, are not necessarily the same within the two systems.

The following example illustrates the problems arising when the two systems are not coordinated. Consider a universal taxable allowance

(7) The Israeli experience can be found in Honig M.: "The transfer system in Israel before and after the devaluation of Nov. 1974" Research No. 8. The National Insurance Institute, Bureau of Research and Planning, Jan. 1975 (in Hebrew). The system in Israel was improved in that sense by the reform in the direct taxation in July 1975. For this see: Roter R. and Shamai N.: "The reform in tax-transfer payments in Israel" International Social Security Review No. 4, 1976.

paid by the social security accompanied by deduction within the tax system.

A substitute, in the form of universal untaxable allowance, can be found which would yield the same net effect from the individual-income point of view.[8] Such a policy substitution contains the idea of the social dividend as a substitute for tax exemptions and taxable allowances,[9] and is similar to the tax credit approach suggested in England.[10]

That policy, if adopted, resolves some of the problems which arise when the two systems operate independently and are not coordinated to eliminate inconsistencies between them.

The basic issue is whether a situation in which the two systems are independent is premeditated, or whether it embodies a social policy conciously enacted by the government, since the net effect can be achieved in various ways.

Thus, it seems appropriate to examine to what extent it is desirable to integrate the tax system with its deductions and credits, with the benefits of the social security.

(8) On the problems involved in developing transfers and allownce system independently of the exemption given by the tax law, see: Atkinson, A. B., "Income maintenance and income taxation" Journal of Social Policy, Vol. 1, Part 2, April 1972.
(9) The approach was first advanced by Laby Rhys-Williams, "Something to Look Forward To", London 1943, and in her "Taxation and Incentives", 1953.
(10) See: "Proposals for a Tax-Credit System" presented to parliament, London, October 1972.

It is particularly important in the area of income maintenance and for those instruments used to guarantee minimum incomes. A coordinated policy might be more efficient and less complicated administratively.

2. INTEGRATION OF SOCIAL SECURITY AND DIRECT TAXATION

a. Alternatives for tax-transfer systems

We will distinguish between three strategies of integrated tax-transfer systems. Firstly we will discuss the nature and characteristics of these alternative strategies, and we will then deal with the advantages and disadvantages of each one of them.

(i) The selective strategy

This policy is defined to be one which contains a selective transfer system, and deductions within the positive tax.

It could also contain a negative income tax as a supplementary system to the social security, by which benefits are given to individuals whose income is considered to be too low, or who are not covered by other programs. Within that framework, the negative income tax is supplementary to the other transfer systems.

The parameters defining the positive tax system within the selective strategy are personal deductions which are related to family size and the marginal tax rate. The parameters effecting the transfer system are the minimum guaranteed income and the implicit tax rate imposed on the benefit as income increases. A basic problem facing the selective strategy is that of determining these parameters, holding the total cost at a certain level. Their levels depend upon the weights given to various objectives. e.g. should we decrease the incidence of poverty by increasing the eligible population, the cost being an increase in work disincentives.

(ii) The universal strategy

This policy is defined to be one containing tax credits as a substitute for personal deduction and various types of allowances given by the social security. In principle, this approach is identical to the negative income tax via tax credit. The only parameters which determine the universal system are the tax credit-levels, and the tax rates.[11] Thus, the basic problem here is that of choosing among various combinations of these parameters, holding constant the total net revenue for the government. The choice depends, as before, on the weights given to different objectives, such as income distribution, incidence of poverty and work disincentives, e.g. an increase of the credit and the tax rates increases the progressivity of the tax structure and the guaranteed minimum income, but also increases work disincentives.

(iii) The mixed strategy

This policy is a mix of the two pure strategies. It is composed of selective benefits system which is taken from the selective strategy, and tax-credits within the positive tax system which is part of the universal strategy.[12]

(11) The tax credit is used to add income to families whose income is below the threshold level and to determine tax liabilities for families whose income is above that level. By that the minimum level of income is guaranteed to all individuals.

(12) Another version of the mixed strategy could be one containing taxable tax-credits, see also note 6.

The selective benefits and universal tax-credits both act in helping the poor and providing minimum income to all individuals.

In order to compare the various strategies we shall first deal with those of the pure type, and we then show that the problems arising from these policies can be partially solved by the mixed strategy.

Generally speaking, it is difficult to achieve various objectives simultaneously, through any tax-transfer system. The one containing more parameters can, in principle, yield better results since, in pursuing its objectives it has more degrees of freedom. Hence, the universal strategy seems to do relatively poorly, in achieving the objectives mentioned above. For instance, the level and the structure of the credits determine the guaranteed minimum income, but they are not necessarily compatible with the requirements of horizontal equity. Nevertheless, the universal strategy may be preferred for its other advantages.

b. Comparison of the selective and the universal strategies

The efficiency of the various strategies is measured in terms of the extent by which they achieve the objectives, defined in the previous section.

Suppose we hold constant the levels of tax rates and total tax-revenue. Under these circumstances the reduction in poverty depends upon the guaranteed minimum income, and the marginal tax rates relevant to the poor. By substituting tax credit for selective transfer, the change in the marginal tax rate is equal to the difference between the implicit tax rate defined by the transfer system, and that applied to

the lowest income bracket within the positive tax system. That difference is usually positive.

The guaranteed minimum income within the selective system is determined by the structure of the transfer payments. By substituting the universal strategy for the selective one, the change in that income depends upon the relative size of the tax deductions in the selective system. The higher their magnitudes the higher would be the credit which could be financed by eliminating the deductions. The tax credit in the universal system is actually the guaranteed minimum income and in most of the cases, that income is reduced when the selective system is replaced by the universal one.

Hence,it is not possible to say a-priori, what would happen to the incidence of poverty when one system is substituted for the other.[13)]

The common criticism of universal credits as a substitute for selective transfer systems maintains that the revenue obtained by eliminating tax deductions and various transfers is inappropriate for guaranteeing minimum income by the universal strategy, and that the increase of the credit would increase the cost of providing for the poor, since part of the money would go to the non-poor.

(13) A study done in Israel shows a reduction in the minimum income accompanied by reduction in tax rates, such that the rate of poverty decreases. Habib, J., "Income maintenance in Israel", Falk Institute, June 1977.

Musgrave and others,[14] in assessing the effect on the incidence of poverty of the two systems found that the selective one does better than the universal system. That is, the ratio between the reduction in poverty (the utility) and the benefits (the cost) is lower for the tax credit approach, hence the universal system is less efficient. However, when measuring utility we take into account the overall progressivity of the tax structure and horizontal inequality as well as the reduction in poverty, the universal system might perform better. In addition, the measurement of cost should take into account the effects on work effort of the alternative tax-transfer systems.

The above analysis was based on the assumption that the tax rates are the same within the two systems. If we relax that assumption and allow the credit to increase, the efficiency of the universal strategy might increase. The Israeli case shows that it is not necessarily less efficient or more "expensive" in reducing poverty when one allows for appropriate changes in tax rates. A similar study done in the U.S.[15] found similar results. Substituting the existing system with a universal tax credit system given by certain demogrants,reduces substantialy the incidence of poverty.

(14) Musgrave, R. A. Heller, P. and Peterson G. E., "Cost effectiveness of alternative income maintenance schemes", N.T.J. No. 23,June 1970.

(15) Okner, A. B., "The role of demogrants as an income maintenance alternative", Institute For Research on Poverty , University of Wisconsin, Madison.

As was mentioned above, one of the advantages of the selective system over the universal system is its relative flexibility. On the other hand, the stigma connected with the means test is absent in the universal system, hence the number of those who are eligible and do benefit from the government transfers is higher under the universal system.[16)]

c. <u>Comparison of the mixed and the pure strategies</u>

Some of the problems which were mentioned in the previous chapter can be partially solved by combining universal tax credit within the tax system and universal allowances which are paid by the social security, with selective benefits, given by the social security and the welfare system. These benefits guarantee minimum incomes, and in determining their size, the amount of the credit is taken into account. Within that type of mixed strategy the tax credit can be relatively low, since the minimum income is provided by the allowances and the selective benefits. Moreover, in comparision with the universal strategy, the required decrease in progressivity necessary to finance a higher level of minimum income, is relatively low.

Habib's findings[17)] show that an increase of 56% in the minimum guaranteed income is accompanied by a 60% decrease in the progressivity within the universal system, but only 16% within the mixed system

(16) For a more thorough discussion of these issues see: Titmus, R.M., "Commitment to welfare". George Allen and Unwin, London 1968. Weisbrod, B. A. "On the stigma effect and the demand for welfare Programs", A theoretical note. Institute for Research on Poverty, discussion paper 70-82,1970.

(17) op. cit.

(Holding government net revenue constant). In addition, the substitution of the mixed for the selective system decreases the number of families who are eligible for supplementary grants, a result that holds even if the minimum income is raised.

Thus, it seems plausible to assume that the mixed system enables a substantial reduction in poverty with a moderate increase in the population which is eligible for supplementary grants (as was required within the selective system) and with a moderate reduction in the progressivity of the tax rates (In contrast to the universal system).

The universal system is more adequate for the working poor, while the selective system seems preferable in dealing with individuals who do not work regularly and who need more help.

The advantage of the mixed strategy is that it deals more adequate with all types of poor. The tax credit plays the role of guaranteeing minimum income to all workers, while the supplementary benefits are directed toward the working and the non-working poor. By integrating the two pure systems, a mechanism is formed which can deal appropriately with many types of income groups.

The problems involved in planning the mixed system are similar to those involved in designing the other two. In addition,a decision concerning the relative importance of the universal and the selective benefits in the income maintenance policy has to be made. The closer is the minimum income to the credit, and the higher is the implicit tax in the selective system, the less important would be the role played by the selective system. Whenever the credit is too low, the selective system would have

to give supplementary income to some of the working poor.

d. Examples of the mixed system

To illustrate the ways by which the mixed strategy operates, we consider the development of the Israeli system, and the British proposal for income maintenance policy. Other mixed systems were also suggested in the U.S. and Canada.[18)]

(i) The Israeli example

In the 1975 Israeli tax reform[19)] the tax deductions for children and the child allowances were replaced by tax credit and universal child allowances. Every adult resident gets credit points and his tax liability is reduced accordingly.[20)]

Child allowances are paid to all sections of the populations. This system replaces the previous system of income tax deduction and the various child allowances paid by the National Insurance Institute. By doing so, the reform strengthened the universal component of the transfer system.[21)]

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(18) For the U.S. proposal see: "Income Security for Americans", Recommendations of the Public Welfare Study, U.S. Congress, Joint economic committee, Report of the subcommittee on fiscal policy 93d congress 2nd session 1974. For the Canadian system see: Office of the National Council of Welfare "Guide to the Guaranteed Income" Ottawa 1976.

(19) A detailed discussion is given in: Ben-Porath, Y., and Brunu, M. "The political economy of tax reform, Israel 1975. Journal of Public Economics, No. 7, (1977).

(20) Whenever the credit is higher than the tax liability, no refund is given to individuals.

(21) The reform also included the broadening of the tax base and a reduction in tax rates. The number of tax rated was reduced, hence, the progressivity of the tax schedule was decreased. Thus, tax exemption became relatively more important in determining the overall progressivity of the tax structure.

The system of tax credit and family allowances plays a double role: Families whose income is below the threshold level get additional incomes. For other families the net tax liability depends upon the family size, and in that way the ability of the taxpayer to pay taxes is taken into account.

Until now we have described the universal component of the mixed strategy, which is based on tax credits within the positive tax system and the universal child allowances. Beside this universal component exists a selective transfer system. It includes various welfare payments and income supplementary program within the National Insurance Institute.[22] The role of the selective part is to provide minimum income to those sections of the population for whom the universal family allowances are insufficient. Child allowances for the third and subsequent children are in themselves adequate to ensure a subsistence level for these children.

On the other hand, the new child allowances for the first two children were not adequate. Therefore, in order to adopt the social insurance and public assistance programs to the new situation, it was necessary to cancel all special supplements provided for the third and subsequent children but to retain some child supplements for the first two children.

(22) Recently, a suggestion for an income maintenance policy was advanced by the Ministry of Social Affairs, which integrates the various schemes which are now in existence, and which are carried by the welfare authorities and the National Insurance Institute.

In addition, the reform was accompanied by a significant increase in the tax treshold, and a real decrease in the income ceiling below which the individual is eligible for support. In the Israeli mixed system, the tax threshold and the breakeven point in the selective system were determined at the same level. The result was a significant reduction in the "poverty trap" which had been created in previous years.

(ii) The British proposal for a mixed strategy:

The proposals for a tax credit system, published in the United Kingdom[23)] can be used to explore the possibilities of using a mixed strategy for coordinating and harmonizing the direct tax and the transfer systems. Beside the selective supplementary benefits and national insurance benefits, there is a universal tax credits scheme which is based on the individual's family circumstances and these are set against the tax liability. If the credit exceeds the liability, the beneficiary receives the differences as a cash benefit. The tax credits are aimed at benefiting those with an income below the threshold, but the system explicity excludes all households who depend only on a supplementary benefit and who receive no national insurance benefits, as well as persons earning less than about £9 per week (in term of 1974)

(23) United Kingdom, "Proposals for a Tax-Credit System", Cnd 5116, Her Majesty's Stationery Office, London 1972.

and all the self-employed. Such a scheme is conceived as a rationalization of existing taxation and social security arrangements. It plays the role of supplementing the benefits provided by the social security system, and it ensures a minimum standard of living to many individuals whose income is below an acceptable level.

Without dealing in detail with that scheme, it may be stated that it has the advantage of a universal system, namely high take up. It would benefit most of the families who are entitled to income supplements, but do not claim them. The system would increase work incentives of poor families who will want to achieve the level of earning required for being qualified for tax credit, and at the same time the system would raise the income of a large number of national insurance beneficiaries (mostly pensioners) above the means-tested supplementary benefit level.

That proposal has not been adopted in the United Kingdom. One of the main changes in the British tax-system which occures now is the substitution of tax deductions for children with tax-credits. That change is due to be completed by April 1979.

e. Adjustment of the tax and transfer systems over time

An important problem facing the policy maker in disigning a tax-transfer system, is the coordination of these systems over time.

The universal system can provide adequate minimum income under inflationary circumstances only if the tax credits are indexed to the price level or to the average wage rate. In the same manner, when the parameters of the selective component of a mixed system are

indexed to the average wage rate, the real value of the minimum guaranteed income is preserved. Otherwise, some of the working poor might become eligible for the selective benefit. Thus, in order to maintain the roles played by the selective and the universal (the credit) mechanisms, both have to be adjusted continuously.

As was mentioned above, within a selective system (and the mixed system) there is a problem of coordination between the tax threshold and the maximum income which determine the conditions of eligibility to the selective benefit. Hence, the parameters of the entire tax-transfer system have to be adjusted in the same way over time in order to preserve the consistency between the two level of income.

The 1975 reform in Israel introduced an automatic corrective mechanism which obviate the need for frequent reforms, namely, indexation of tax parameters.

3. THE TAXATION OF SOCIAL SECURITY CONTRIBUTIONS

a. Integration of the social security contributions and the income tax

We have dealt above with the issues involved in integrating the social security and the tax systems.

In considering various integration shcemes the question arises whether to incorporate the social security contributions, (at least those which are connected with supplementary income benefits) within the income tax system. The main advantage in incorporating the social security contributions within the income tax system, is the elimination of the regressivity of the former. Such a reform would require a considerable increase in the tax rates, to an extent which seemed impractical. The actual increase in tax rates required to compensate for the revenue loss, depends upon the particular circumstances of each country.[24)]

It seems implausible that such a drastic change in tax rates would be accepted by the policy makers. The effect on work disincentives generated by such an integration might be quite high. In addition, the social security system loses its nature as an insurance scheme.

(24) A moderate estimate of the required increase in the tax rates for the U.S. is given in Brittain, John A.,"The Payroll Tax For Social Security", p. 143.
Higher figures are given in Fried, Edward R.,"Setting National Priorities"; The 1974 Budget, Brookings Institution, 1973, p. 60.

It should be emphasized that while the payroll and the income taxes are practically two different schemes, what matters to any individual is the total amount of compulsury payments and, in planning them, the combined tax rates should not be too high.

The distribution of income would become less unequal. Particularly, such an integration would reduce the tax burden for low income groups.

The payroll tax for social security is proportional (in most of the cases) to earnings up to a ceiling. Even without integration, it is possible to decrease the regressivity of these taxes by reducing the rates and raising the ceiling. That regressivity can also be reduced by adopting the "earned income credits" system.[25)] In that approach a proportional credit is given up to a ceiling. For incomes above the ceiling the amount of the credit is reduced when the income rises. These credits aim at compensating individuals with low incomes for the payment of social security contributions. To those individuals for whom the amount of the credit is higher than their income tax liability, tax returns are given to compensate for the social security tax. Thus, a situation in which individuals who get transfer payments and pay income tax and social security contributions is avoided.

In studying the progressivity of the social security system, it seems plausible to take into account the distributory effects of the benefits, as well as the contributions. Thus, with proportional

(25) See Tolley, G. S. and Burkhauser, R. V. "Integrating social security into an income policy" Institute for research on poverty, reprint No. 267.

social security tax and flat rate benefits, the overall inequality of income would decrease since, individuals with low income receive more than high-income individuals. Where the benefits are proportional to income (unemployment benefits and pensions, in various countries) the social security system has no direct effect on the distribution of income.[26)]

b. Approaches to the taxation of social security contributions

In dealing with the interrelationships between the social security and the tax systems, the issue of taxing the social security contributions (when the two taxes exist side by side) has to be considered.

The next section discusses that issue in connection with the problem of double taxation, which arises when the contribution and benefits are subject to taxes. We also discuss the main aspects involved in taxing social security contributions.[27)]

The ways these contributions are taken into account in calculating tax liabilities have a direct effect on their incidence.

Three approaches toward the taxation of social security contributions can be distinguished.[28)]

(26) This is true under the assumption that the risk is distributed independently of the income level. Thus, if the probability of getting injured is higher for individuals with low incomes, since they are usually manual workers, they would get relatively more in the form of compensations for work injuries.

(27) We are here dealing only with that part of the social security tax which is paid directly by the employees. Usually the employers pay social security tax on behalf of their employees, and these are recognized as expenses for tax purposes.

(28) See Reddin, M. "Some relationships between taxation and social security", International Social Security Review No. 1, 1970

(1) to enable individuals to deduct social security contributions from the tax base.

(2) to give tax credit for the social security payments.[29]

(3) to ignore social security contributions in calculating tax liabilities.

Assuming that the benefits are taxable, the first and the second approaches toward social security contributions in the tax system avoid the problem of double taxation. When no exemption for contributions is given in calculating tax liabilities, the problem of double taxation does arise.

The income tax is usually progressive. Thus, flat rate contributions which, when taken by themselves are regressive, would become more so when combined with tax deductions. The second approach eliminates the regressivity of the social security tax. That is, it renders the contributory system neutral. The third approach leaves its incidence unchanged.

Earning related contributions is more progressive than earning flat rate contributions. However, combined with the deduction approach, the relief in tax payments is more unequally distributed than that connected with flat rate contributions. Thus, it is unclear which contributory scheme when combined with tax deductions for social security contributions, is less regressive.

(29) See Tolley, G. S. and Burkhauser, R. V. op. cit.

When those contributions are proportional to income up to a ceiling, than, for incomes above the ceiling, they are regressive, and even more so when combined with tax deductions.

4. TAXATION OF SOCIAL SECURITY BENEFITS

A proper definition of taxable income is a matter of tax equity. Excluding various types of incomes from the tax base can be justified if it serves certain social and economic objectives that cannot be accomplished otherwise.

The following sections deal with the issue of taxing social security benefits (old-age pensions, survivors' benefits, disability benefits etc.), welfare payments and private pensions.

In studying these issues we distinguish between income supplementary benefits which are given according to a means test, and earning replacement benefits, which are not subject to such a test.

The analysis of the taxation of earning replacement benefits, distinguishes between those given to individuals during the working period (e.g. unemployment benefits) and those given during the retirement period. (e.g. old-age benefits).

a. The taxation of means-tested benefits

Generally speaking,income supplementary benefits and welfare payments given according to a means test are not included in taxable income. The very use of the means test itself involves implicit high marginal tax rate on the beneficiaries, since the transfer is reduced when incomes from other sources increase. Hence, the subjection of the transfer payment to the regular tax would increase the marginal tax even more, and consequently would generate an increase in work disincentives.

In many countries the size of the grants is smaller than the income which is exempted from tax. Thus, for families for which the transfer

is the only source of income, the question of taxing these benefits does not arise. The issue of taxing them relates only to those families who belong to the active labor force or to those who have income from other sources and whose income is above the tax-threshold.

In Israel the rule adopted by the welfare authorities is that total resources available to the individual (that is, earnings plus transfers) should not be higher than the threshold level of income. Hence, an individual whose income is equal to the threshold level gets no grants. Consequently the issue of taxing welfare payment does not arise.

On the other hand, large parts of the income supplementary benefits given by the social security institute, are subject to taxation. However, in most of the cases, the total income of those beneficiaries is below the tax threshold.

In the U.S.A. income supplementary benefit given to disabled and aged individuals within the S.S.I. (Supplementary Security Income) and federal welfare programs are tax exempted.

The main arguments against taxing transfer payments to low income individuals are:

(1) Where selective benefits are given in accordance with a means test, no arguments such as universality and administrative efficiency can be applied which might justify the payment of benefits and their taxation simultaneously.

(2) The level of income supplementary benefits is determined by what is considered to be a minimum necessary income. Hence the taxation of these benefits has to be accompanied by an increase in their level such that the net minimum income would remain unchanged.

Still another issue concerns the effect of taxing the benefits, is the overall distribution of income.

The proponents of the idea that benefits should be taxed, maintain than tax equity requires that those benefits should be subject to taxation. Otherwise, persons who receive transfer payments pay less tax than other with the same amount of income from wage or other taxable sources.

The level of personal tax deductions (or credit) existing within the direct tax system, reflects a general standard of the individuals ability to pay taxes. The proponents of benefit taxations argue that if the level of these deductions (or credit) is too low, it should be raised for the entire population.

In addition, when considering the desired level of personal deductions (and hence, the threshold tax) an account should be taken of the minimum guaranteed income. When this is done, the inclusion of benefits in the taxable income requires no rise in the level of these benefits.

Another argument employed by the taxation's proponents is that untaxed benefits are not an efficient instrument for helping the poor

population, since, those with low incomes would not have to pay taxes even though the benefits were included in the tax base. However, those who benefit from the exemption are individuals who have income from other sources such that the tax deduction becomes effective. those

It should be emphasized that these arguments are valid whenever the threshold level of income determined within the tax system is lower than that implicit in the system of transfers - i.e., the level of income above which individuals are not eligible for transfer payments.

As mentioned in the first section, when the two systems are coordinated, and the threshold level of income is equal to the break-even level of income within the selective transfer system, the problems involved in taxing social security benefits do not arise.

b. The taxation of earning replacement benefits

(i) Benefits during retirement

Social security benefits such as old-age, survivors, disability and unemployment benefits are given to all the covered population and the basic allowances are not subject to a means test.

These benefits are usually considered as regular income and are subject to taxation as are incomes from other sources. (There are exceptions to this rule, as will be discussed in a later section).

The opponents to the taxation of pensions and social security benefits argue that these represent return on insurance premiums paid in previous years, and from which income tax was already taken. That is, the issue is of double taxation.

It should be emphasized that double taxation is less of a problem under the pay-as-you-go system of financing social security (as compared with the accumulated - fund approach) since for the average individual in the scheme, the expected present value of the benefits exceeds expected present value of contributions. Thus, an argument could be made for double taxation since part of the benefit does not represent an ordinary return from an insurance premium paid in previous years.

In addition, the problem of double taxation becomes less severe if we assume that the employers' contributions are fully shifted to his employees. Both regard these contributions as a part of the gross wage. Hence if they did not exist, the gross wage rate and the income tax would be higher. Hence, since the employer's contribution is tax exempted, double taxation can be partially justified.

An alternative solution to the issue of double taxation is to include only part of the retirement benefits within the taxable income. That part would be determined by the ratio of the contributions made by employers on behalf of their employees to the total amount of social security contributions. That is, if both contribute equal amounts to social security, only half of the benefit would be taxed. The main advantage of that approach is its administrative simplicity. The main arguments against it, is that there is no direct relationships between the level of contributions and benefits for all individuals and that

it ignores the accumulated interest received. Hence, the part of contributions paid by employers is a poor guide for determining that part of the benefit which should be subject to the ordinary income tax rules.

(ii) Taxation of social security benefits according to rules applied to private pensions

The main issue involved here is whether the regulations applied to private pension programs which take into account problems of double taxation, are adequate in dealing with social security retirement schemes, and whetehr the adequation of these rules is consistent with the objectives of social security.

In dealing with that issue it is necessary to summarize briefly the main approaches toward the taxation of private pensions.

Two alternatives can be distinguished:

(1) To include contributions in the current period within the taxable income, and to tax the income from interest but to exempt the repayment of the principal.

(2) To deduct current contributions from the tax base,and tax fully the pensions, whenever they are paid to individuals.

The main defficiency of the second approach is that savers in private pensions funds can exploit options which are not open to other savers. First, the deferred tax payment enables the accumulation of capital gains. Secondly, since income during the retirement period

is usually lower, the tax rate on saving would be lower compared with taxes paid on incomes during working life.

For some of the pension programs, the following rule hold: During the retirement period the taxable income is only that which is made up of the difference between the aggregate amount of future pensions over the life period and the aggregate contributions made by the employee during his working period. The employer's contributions and the accumulated interest are subject to tax only during the retirement period. Thut is, there is no tax deferment on contributions made by the employee and the issue of double taxation does not arise.

The question which arises is whether we can apply this rule for retirement benefits of the social security. The difficulty involved in adopting the rule is that no property rights exist for the social security retirement programs as do for the private pension schemes, since the first is determined by the government budget policy.

The main defficiency with that application is that for those individuals with low incomes during the working life the level of contributions is also low, hence during the retirement period that part of their income which is taxable would be relatively high compared with those whose income during the working period is high, and who pay higher social security taxes.

This is particularly relevant for those countries where part of the old-age benefit is a flat-rate pension given to the whole population, in addition to the earnings related benefits.

Retirement benefit programmes do vary among countries in their components, their financing, their methods of operation and the population they cover. In most countries, social security retirement programs exist side by side with private pension plans and with public welfare programs for old people who have no other source of income (apart from the benefit) or whose income is too low.

is excluded from the taxable income, but contributions made by the employee are not deducted from the tax base. On the other hand, pensions given by private institutions are taxable as ordinary income, but there is tax deduction for the saving in pension funds.

Supplementary Security Income to the aged poor given by Social Security according to a means test are exempted from the tax base.

In Finland the basic flat-rate pension given to the entire populations is tax exempted, but pensions which are given according to incomes during the working and the insurance period, are subject to taxation. Welfare payments to aged poor given according to a means test, are tax exempted.

The same rule applies to Norway. In addition, aged individuals get tax deductions which other individuals do not.

In Sweden the basic flat-rate pension is included in the taxable income. However, if the pension's recipient has no income from other sources, or his income is relatively low, then it is tax exempted. On higher incomes (up to a ceiling) the tax rate on income from pensions is lower than on other types of incomes, and incomes above the ceiling are taxable according to the rules applies to all taxpayers.

In France and Belgium pension benefits are taxable but the tax rate is lower than on other incomes.

In United Kingdom, the national flat-rate pension is included in the tax base and some exemptions are given to old people.

The supplementary benefits given according to a means test are tax exempted.

In Israel only 75% of the old-age benefit, the pensions and supplementary benefit to the aged are included in the taxable income.

(iii) Income replacement benefits during the working life

The objective of these benefits is to compensate the individual for short-term or long-term reductions in his income. They include mainly unemployment and disability benefits.

These are independent of other types of incomes, but their level is determined by the individual's previous wage rate and the number of his dependents.

The main arguments advanced in favour of taxing earning replacement benefits are of two types:

(1) The work disincentives implied by untaxed benefits are of important magnitudes.

(2) The distribution of beneficiaries and benefits by income groups is regressive since the benefits depend upon previous incomes, and individuals at the middle and upper range of the income distribution are always covered by the social security programs, and are eligible for the maximum amount of benefit.

Considering the taxation of earning replacement benefits during the working period, the basic issue concerns the level of the benefits and the way the replacement rate is calculated.[30)]

The benefit itself could be determined as a certain proportion of the individual previous net or gross income. If, when calculating the level of benefits, the criterion employed is the individual's gross income,it seems reasonable to include the benefit in the taxable income.

It should be emphasized that benefits based on net incomes are more progressive (due to the progressivity of the tax structure), than these which are based on gross incomes.

The two indices which are used to assess the replacement rate are the net and the gross rates. When the rate of replacement is high, beneficiaries would have strong incentives to remain out of work for the maximum possible period for which they are entitled to benefits (particularly so if the "value" of leisure is high). The above argument cannot be applied to earning replacement benefits at the retirement period since retirees are not required to be in the active labor force.

A study done in Massachusetts, U.S.A.[31)] where the unemployment

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(30) The net tax rate is defined as the ratio of the benefit to the net income of the beneficiary if he continues working. The gross tax rate is defined as the ratio of the benefit plus the tax on individual's previous incomes, to his gross income had he continued working.

(31) See: Feldstein, M. "Unemployment Compensation: Adverse Incentives and Distributional Anomalies" National Tax Journal, Vol. XXVII, No. 2.

benefit are included in taxable income, reveals that:

(1) The two replacement rates are quite high - 85% to 103%. That is, the compensation for the loss in income is higher than the income that the individual could get had he continued working.

(2) Individuals with relatively high incomes get the highest amounts of unemployment benefits. The distribution of benefits among families who obtained them,is regressive.

These results constitute an important argument in favour of taxing unemployment benefits. Such a reform would reduce work disincentives embeded in the existing system, and would render the distribution of these benefits more progressive. It should be mentioned that in many countries, including Israel, unemployment benefits are included in the taxable income.

An international comparison of unemployment and retirement benefits replacement rates among various western countries is presented in the appendix.[32] In all the countries the replacement rates for unemployment benefits are less than 100% and are lower the higher is income. The replacement rates for incomes during the retirement period, that is, pensions and old-age benefits, also decreases with income.

(32) See App. 3, tables 1 and 2.

The taxation of social security benefits involves some administrative difficulties. In calculating tax liabilities the individual's income from all sources including the social security benefits, should be taken into account. However, the social security administration is reluctant to deduct taxes from the benefits it pays.

Where universal reporting of all individuals exists, the issue does not arise. However, where this is not so, deducting taxes at the sources at the appropriate rates, become quite difficult.

This is particularly so regarding long term benefits, since the lack of information on incomes from all sources renders the calculation of the tax liability impossible. In addition, the withheld tax has the advantage that under inflationary circumstances no gains due to defferred tax payments are accrued to individuals, as compared with a system in which tax on social security benefits is not deducted at source.

In Israel, the taxation of unemployment benefits is done at source, but old-age, survivors and disability benefits are not taxable at source.

Earning replacement benefits during the working period (e.g. maternity benefits) are proportional to previous gross incomes and are not taxable at source.

Another issue concerns the tax treatment of lump-sum benefits and non-regular grants. Whenever the lump sum is not taxable but regular benefits are taxed, individuals will prefer the tax-free lump-sum to a flow of taxed benefits.

In the above discussion we pointed out the issues involved in the taxation of the social security benefits. Naturally, we touched upon the important aspects only. A more thorough discussion of these issues is beyond the scope of our survey.

Appendix No. 1

Income Comparison[1)] of Families with 1, 2, 3 or 6 Children with a Couple without Children

Country	Before Deduction of Taxes and Social Security Contributions				After Deduction of Taxes and Social Security Contributions			
	1 Child	2 Children	3 Children	6 Children	1 Child	2 Children	3 Children	6 Children
	%	%	%	%	%	%	%	%
Belgium	106.2	116.0	129.5	171.0	111.0	125.2	144.1	208.0
Federal Republic of Germany	102.9	107.0	113.9	134.8	103.9	109.5	119.0	147.4
Finland	102.7	105.7	109.3	123.0	104.8	111.2	118.2	138.7
Great Britain	100.0	103.0	106.0	117.9	104.4	111.2	117.3	139.7
Canada	102.7	105.3	108.0	116.0	103.6	107.2	110.8	121.6
Netherlands	102.7	107.6	112.4	132.3	105.5	113.4	121.4	151.2
Austria	105.6	111.7	119.1	126.6	111.7	123.6	133.0	142.5
Sweden	105.3	110.6	115.8	131.7	107.9	115.7	123.6	147.2
Switzerland	102.5	105.0	107.4	114.9	103.5	108.2	111.9	122.6
USA	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Israel	104.0	108.0	115.9	145.8	108.0	115.9	119.9	149.8

(1) Relationship in percent of the average earning plus allowances for children to the average earnings without allowances for children.

Source: Union Bank of Switzerland and Institute of Insurance Economics. St. Gall Graduate School of Economics, Business and Public Administration. January 1977

Appendix No. 2

a. <u>The selective strategy</u>

The net tax liability within the positive tax system (Pt) takes the form of:

$Pt = T(y-E, \pi) > 0$ for $y > E$

and $Pt = 0$ for $y \leq E$

Where π = the marginal tax rate

y = income

E = the tax deductions

The net payment within the selective system is:

$Ps = T'(y, \phi) - M < 0$ for $M > T'$

$Ps = 0$ for $M \leq T'$

Where T' = total tax payment

ϕ = the marginal tax rate within the selective system

M = the minimum guaranteed income

Ps is the net tax payment, hence a negative value for it corresponds to a transfer payment. The breakeven point of the selective system is at income level which $M = T'$.

y^* is the disposable income after taxes and transfers.
Assuming that the threshold equal the income ceiling of the transfer system, the entire tax-transfer system can be illustrated as in figure 1.
A situation in which the transfer vanishes at income y_2 and the net tax becomes positive at income y_1 (that is, the two systems are inconsistent) is depicted in figure 2.

Figure 1:

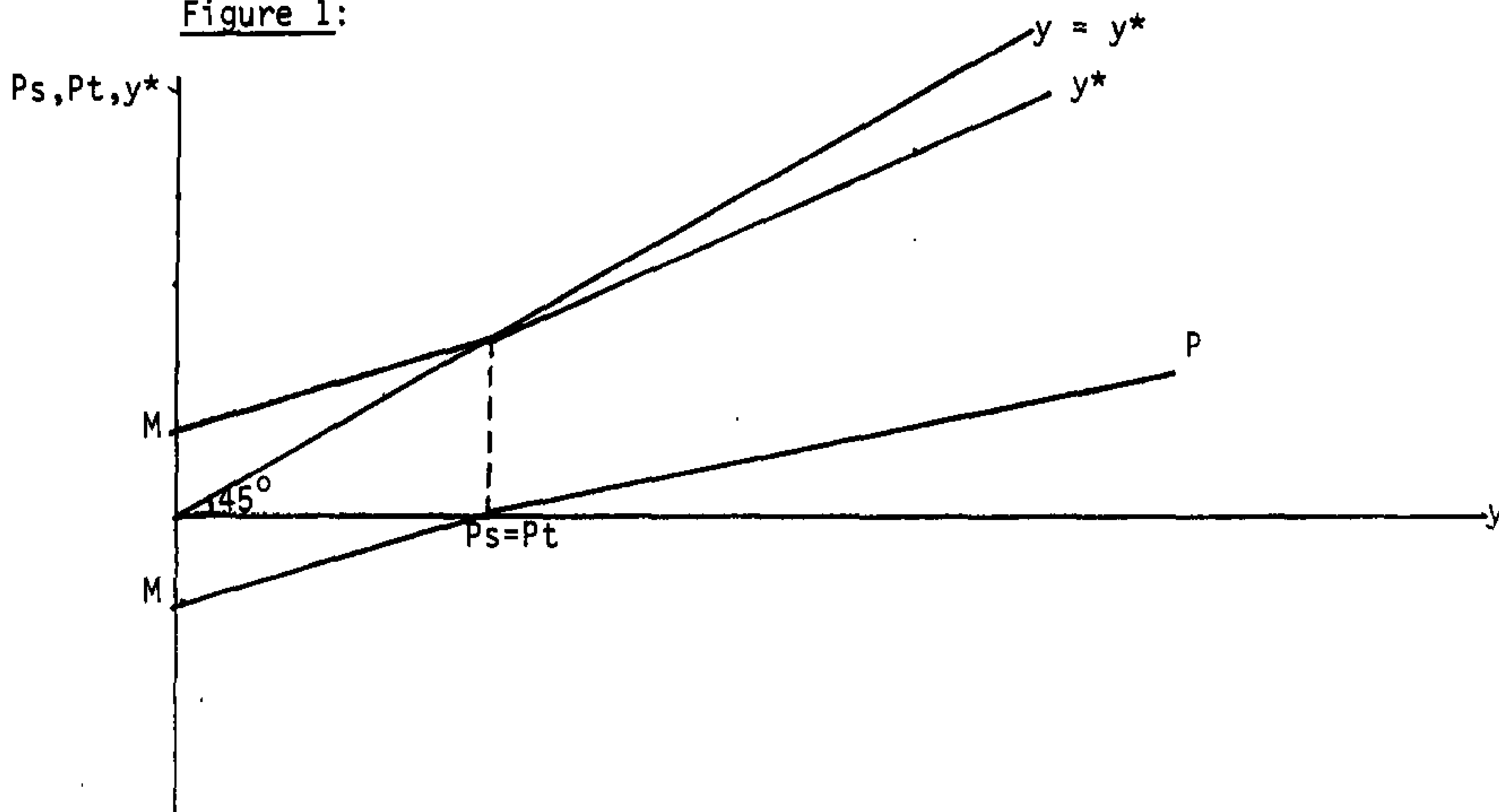


Figure 2:

y*,Ps,Pt

y=y*

y*

Pt

M

45°

y_1

Ps

y_2

y

M

b. The universal strategy

$P = T - C$

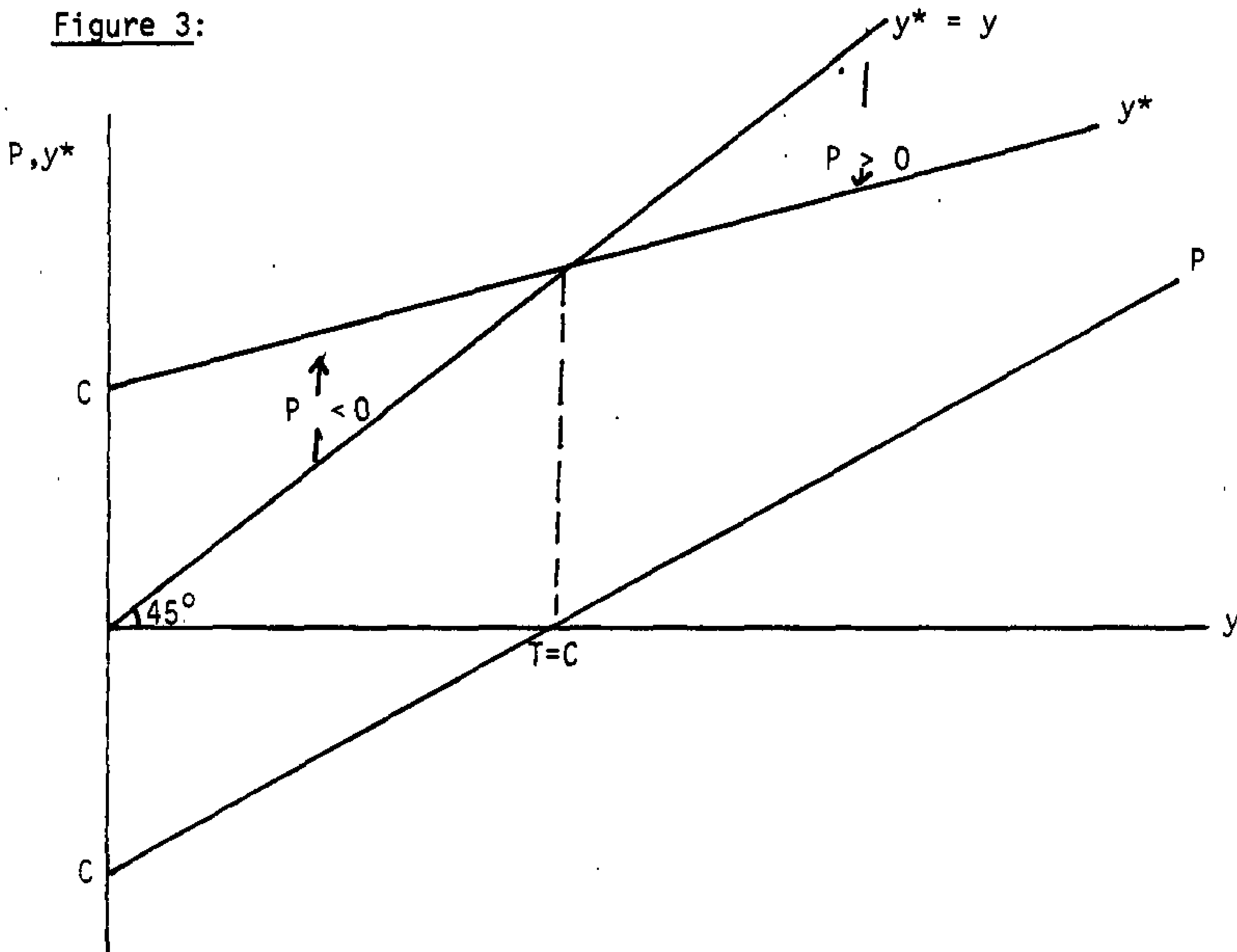
Where P = net tax payments

$T = T(y, \pi)$ = gross tax liability as a function of the income, y, and the tax rate, π.

C = the tax credits

The graphical representation is depicted in figure 3.

Figure 3:



c. <u>The mixed strategy</u>

There are many alternatives of mixed strategy. The one consider here, and which was discussed in our survey is one which consists of taxable tax credits (c) within the positive tax system, on minimum level of income, M, which is equal to G+c, G being the transfer payment which is paid by the selective system.

The net payment by the selective system takes the form of:

$$Ps = T' - (G+C) \qquad \text{for } G > T'$$

and $$Ps = -C \qquad \text{for } G \leq T'$$

That is, the selective mechanism is applied to income up to the point where:

$$T' - G = T' - (M-C)$$

The positive tax takes the form:

$$T = T\ (y+C,\ \pi)$$

Whenever the tax credit is not included in taxable income we have

$$T = T\ (y,\ \pi) - C$$

Appendix No. 3

Table 1: Unemployment Compensation[1)] of a Family with 3 Children

Country	Gross Income Comparison: Unemployment compensation as a percentage of final earnings before deduction of taxes and social security contributions[2)]			Net Income Comparison: Unemployment compensation as a percentage of final earnings after deduction of taxes and social security contributions[3]		
	Income category 1 (=100%)	Income category 2 (=150%)	Income category 3 (=250%)	Income category 1 (=100%)	Income category 2 (=150%)	Income category 3 (=250%)
	%	%	%	%	%	%
Belgium	74.2	58.3	37.5	87.2	72.8	53.8
Federal Republic of Germany	72.5	61.2	39.9	94.5	83.1	55.8
Finland	64.0	43.9	27.0	76.9	59.5	42.4
Great Britain	84.4	51.3	36.6	105.2	65.7	48.1
Canada	70.1	49.7	30.4	73.8	55.9	37.6
Netherlands	82.5	82.1	66.4	84.2	80.3	71.4
Austria	61.2	45.6	28.6	69.2	53.4	36.3
Sweden	91.3	69.3	43.2	93.9	78.8	60.3
Switzerland	83.2	79.0	51.1	91.6	91.8	61.6
USA	62.6	48.3	29.0	70.5	58.5	37.7
Israel	72.7	58.5	46.8	87.7	76.4	66.9

(1) As a rule, this includes unemployment cash payment and supplementary benefits for children etc. Computation is based on three different income categories:
Income category 1: 100% of the average earning in each country
" " 2: 150% of the " " " " "
" " 3: 250% of the " " " " "

(2) Gross earnings as a percentage of final gross earnings before unemployment

(3) Net earnings as a percentage of final net earnings before unemployment

Source: Union Bank of Switzerland and the Institute of Insurance Economics. St. Gall Graduate School of Economics, Business and Public Administration January 1977.

Table 2: Retirement Income[1)] of a Married Couple

Country	Gross Income Comparison: Retirement income in % of final earnings before deduction of taxes and social security contributions[2)]			Net Income Comparison: Retirement income in % of final earnings after deduction of taxes and social security contributions[3)]		
	Income category 1 (=100%)	Income category 2 (=150%)	Income category 3 (=250%)	Income category 1 (=100%)	Income category 2 (=150%)	Income category 3 (=250)
	%	%	%	%	%	%
Belgium[4)]	46.8	42.9	39.7	60.6	58.1	56.3
Federal Republic of Germany[4)]	62.6	60.5	39.3	84.3	84.3	55.7
Finland	78.9	55.7	38.9	95.6	72.5	52.0
Great Britain	59.1	56.1	63.8	81.6	67.7	64.5
Canada[4)]	53.1	35.5	21.3	62.1	44.5	29.2
Netherlands[4)]	55.5	37.0	22.2	80.4	53.2	35.2
Austria[4)]	79.9	77.2	46.3	90.5	89.6	56.0
Sweden	104.1	81.5	58.2	131.6	103.8	80.2
Switzerland	82.6	76.0	45.6	95.6	91.7	57.6
USA[4)]	60.4	47.2	29.1	71.4	59.2	38.6
Israel	106.0	94.0	84.4	118.2	110.2	102.2

(1) As a rule, this includes the basic pension of the statutory social security scheme, complementary retirement benefits from additional social insurance and/or company-provided pension schemes as well as welfare benefits. The pension computation is based on three different income categories (see table 1.) .
(2) Gross pension income as percentage of final gross earnings.
(3) Net pension income as percentage of final net earnings.
(4) Not including retirement benefits of a company-provided pension scheme (criteria: less than one half of the employees are members of a company-provided pension scheme).

Source: Union Bank of Switzerland and the Institute of Insurance Economics, St. Gall Graduate School of Economics, Business and Public Administration January 1977.

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