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3 Tax Policy in Sweden

Erik Norrman and Charles E. McLure Jr.

3.1 Introduction

There has recently been a sea change in the philosophy of tax policy in Sweden. Södersten (1991, 16) calls the 1991 reforms "the most far-reaching reform of the nation's tax system for at least 40 years." Neutrality has replaced social and economic engineering and redistribution of income as the key principle guiding tax policy. This revolution in thought is reflected in the tax reforms enacted in 1985, 1991, and 1994. However, proposals to be implemented during the next few years may turn out to increase asymmetries in the system again.

This paper traces the incentives for investment in the Swedish economy created by the tax system. Since taxation of labor income is treated in other chapters of this book, our investigation focuses on the taxation of income from capital and the development of tax policy over the past twenty-five years. The reforms of 1991–94 are examined in detail in order to evaluate their expected effect on resource allocation and the distribution of welfare. The aim is to shed some light on Swedish tax policy and its development.

The theory of optimal taxation seldom gives concrete direction to policy makers. However, one rule of thumb, which is both intuitively appealing and relatively easy to implement, states that taxes should be neutral, unless it is proved that distortive taxes are desirable. *Neutrality* refers in this case to taxes that do not distort the relative prices of different goods or choices of productive factors and methods of finance. This norm suggests that equal tax rates should be applied to all ways of earning capital income (e.g., depreciable assets and

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inventories) and to various types of capital income (dividends, interest, etc.). Neutrality is consistent with horizontal equity as well as efficient resource allocation. In this paper, economic neutrality is used as a norm against which to judge the incentives created by the tax system.

Until recently, tax policy has been utilized as an instrument of social and economic engineering in Sweden. In particular, generous incentives were provided for investment, in order to encourage industrialization; it was thought that tax-induced industrial production for export would assist in avoiding balance of payments problems.

Consistent with the egalitarian philosophical underpinnings of the welfare state, highly progressive taxes were levied on the income of individuals. Together with the need to make up the revenue lost through investment incentives, this resulted in extremely high marginal tax rates on the incomes of individuals; in 1980, the top marginal rate was above 85 percent, and 74 percent of full-time employees paid marginal tax rates in excess of 50 percent (Statistiska Meddelanden 1987, table 9.8.2).[1]

These high tax rates had results that should have been anticipated. They discouraged saving and work effort (at least in the market economy—labor increasingly found untaxed outlets, e.g., in the "gray" economy and in self-maintenance of owner-occupied housing). Stuart (1981) estimates that 75 percent of the measured decline in GDP during the 1970s was a result of increasing home activities at the expense of market activities. Hansson (1984) calculates the marginal cost for raising SKr 1.00 by increased average and marginal taxes on labor in order to spend on transfers to be as large as SKr 7.20!

High tax rates also created substantial incentives for illegal tax evasion and for legal tax avoidance—the arrangement of transactions to escape taxes. Perhaps as important, the combination of high rates and structural imperfections created the opportunity for tax avoidance. These behavioral adjustments, which may not easily be reversed, can be particularly unfortunate if they undermine honesty and respect for the state.[2]

Although individual income taxes were very high, corporate income taxes were generally quite low, once investment incentives are taken into account, despite statutory corporate rates in the neighborhood of 60 percent. Moreover, the corporate income tax was quite uneven in its effects. This is best seen by examining marginal effective tax rates (METRs), that is, the tax wedge between the gross returns to investment and the net return to the investor. On balance, considering all sources of funds, methods of finance, assets, and in-

1. The rate referred to includes the income tax system but not the additional wedge from the social security system.

2. Thus, Lindbeck (1993) suggests: "A particularly problematic phenomenon in advanced welfare states is that the incentives to cheat on taxes and benefits are considerable. It becomes expensive to be honest; accordingly, the supply of honesty will gradually fall—even in countries where honesty has originally been relatively pronounced, as in the Nordic countries. There is, therefore, a risk that high-tax welfare states will gradually depreciate the historically inherited 'capital stock' of honesty, and it might be difficult, or at least take a long time, to restore it."

dustries, the METR under the Swedish corporate tax system was only about 2 percent in 1980.[3] Since, considering the effects of both the corporate and the owners' income taxes, the overall METR was 37 percent, it is clear that, while investment in the Swedish corporate sector was heavily subsidized, saving was heavily taxed.

One effect of such a constellation of marginal effective tax rates would have been the creation of incentives for foreigners to own Swedish industry, relative to a system with a more evenhanded treatment of saving and investment, except that the law limited the possibility for foreigners to hold shares in Swedish corporations before 1993. Instead, the incentives led primarily to increased ownership by domestic tax-favored institutions; household ownership fell from 55 percent of the total value of quoted shares to 15 percent during the period 1970–92 (see fig. 3.1). At the same time, domestic institutions (insurance companies, pension funds, etc.) increased their share from 40 to 67 percent. Since the abolition of limitations on foreign holdings of Swedish shares, foreign ownership has risen from 8 percent in 1990 to above 20 percent in 1994.

The heavy subsidization of corporate investment is particularly anomalous since the taxation of returns to investment by foreigners (and low-taxed domestic entities) is one of the reasons commonly offered for the existence of corporate income taxes.

Beginning modestly in 1985, accelerating in 1991, and continuing with the 1994 changes, there has been a marked change in tax policy in Sweden. As in the rest of the world, the emphasis has shifted from redistribution and encouragement of investment to horizontal equity and economic neutrality. Investment incentives have been reduced dramatically. These and other base-broadening reforms have allowed equally dramatic reductions in the marginal tax rates applied to both individual and corporate income while maintaining revenues. Moreover, base broadening has prevented a sharp reduction in progressivity since high-income earners typically have received low-taxed fringe benefits.

Several important additional reforms have been enacted in the taxation of income from capital since 1991. In the beginning of 1992, the tax rate applied to capital gains was reduced from 30 to 25 percent. Beginning in 1994, the statutory corporate tax rate was reduced from 30 to 28 percent, and a deduction for dividends on new shares was abolished.[4] Instead, dividends from publicly held corporations were exempt from tax, and the capital gains rate was reduced once again to 12.5 percent. At the same time, the tax equalization fund system

3. Note, however, that Södersten (1991) estimates a METR of −26 percent at an inflation rate of 10 percent—roughly the rate prevailing at the time. For the difference in methodologies used by Södersten and Norrman, see n. 21 below.

4. The "Annell deduction" allowed the corporation to deduct an amount from the corporate tax base equal to dividends paid out, up to 10 percent of new issued equity capital per year within twenty years from issue date and a maximum of 100 percent of the issued amount. See sec. 3.4 below.

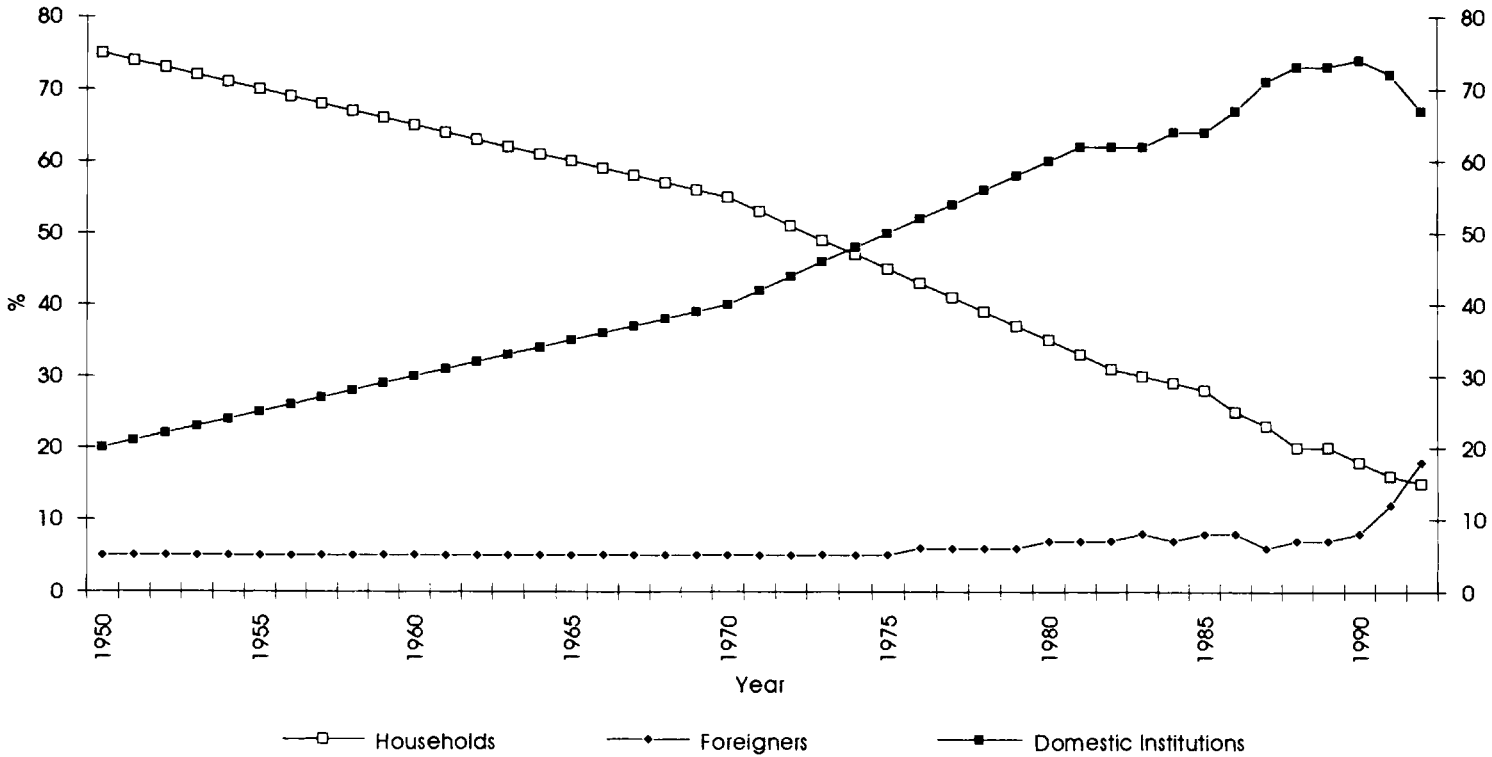

Fig. 3.1 Owners of Swedish quoted stocks, 1950–92
Source: Spånt (1975); and Statistiska Meddelanden (1993).

(*surv*) was replaced by a system allowing tax credits based purely on profits.[5] These reforms had the effect of greatly reducing the discrimination against new issues and retained earnings that survived the 1991 reforms.

Complexity has been one of the hallmarks of Swedish income tax policy. This can be seen in, among other things, the elaborate system of extra investment allowances, the Annell deduction, the investment funds system, and the tax equalization fund. Perhaps equally important is the complexity that results from taxpayers' efforts to avoid, or even evade, high tax rates and the efforts of the fiscal authorities to thwart avoidance and evasion. Such efforts are inevitable if similar types of income are taxed very differently, as taxpayers will attempt to convert high-taxed income to low-taxed income.

The 1991 and subsequent reforms reduced both elements of complexity. They eliminated the Annell deduction and most tax incentives for investment. They reduced the incentives and opportunities for tax avoidance and evasion by lowering tax rates and introducing schedular elements into the system as well as by curtailing investment incentives.

The latter effect is particularly important and thus worthy of note. Arguments for global income taxation assume implicitly that all income will be taxed as it accrues. In such a world, it makes sense to allow deductions for all expenses as they accrue. But asymmetric treatment of income and expenses—as when nominal interest expense is deducted currently but taxation of investment income is deferred—is a recipe for disaster. As taxpayers take advantage of asymmetries to reduce their taxes, simplicity suffers, along with equity and neutrality.

3.1.1 Alternative Models of Tax Policy

Economists commonly espouse two alternative models of tax policy, both of which are (in their pure form) neutral with regard to the allocation of capital.[6] One model is based on the taxation of income, the other on the taxation of consumption. It is common to identify consumption-based taxation with indirect taxes, such as the value added tax and excises. In fact, there is also a form of direct taxation that is tantamount to taxing consumption rather than income.

Historically, direct taxation in Sweden has followed neither of these models closely. Rather, it has contained a mixture of provisions—some of which might be consistent with one or the other model—that, in combination, create complexity and inequity and distort the allocation of capital. Given the importance of this distinction and the disadvantage of adopting a "hybrid" system that

5. In the former tax system, 30 percent of the equity capital at the end of the accounting year (i.e., including after-tax profits of the year) formed the basis for additions to untaxed reserves called *surv* (tax equalization fund). In the new scheme, 25 percent of each year's profits may be kept in a fund for a maximum of five years. Taken together, this means that, at an even level of profits over time, 125 percent of the yearly profit may be kept in such funds.

6. For a description of the evolution of thinking about these two models, see McLure and Zodrow (1994).

corresponds fully to neither model, the remainder of this section explains these two forms of direct taxation. The next section presents data on sources of revenue.

The Income Tax Model

The traditional favorite (in theory, if not in practice) is the income tax model. In this model, the objective in the taxation of income from capital is to define the tax base to track economic income as closely as possible. Thus, depreciation allowances should reflect economic depreciation, and there should not be any extra deductions or credits intended to encourage saving or investment.

Inflation erodes the real value of depreciation allowances, the real cost of goods sold from inventories, and the real value of outstanding debt, and it causes the overstatement of capital gains. Ad hoc measures, such as acceleration of depreciation allowances, are sometimes used to offset these effects. But, if the rate of inflation is high enough, explicit adjustment for inflation is required, as explained below.

Some countries employ a "classical" system, in which corporate income and dividends received by shareholders are subject to separate tax regimes, with no attempt to integrate the two, in order to reduce double taxation of distributed earnings. It has generally been agreed that it is impossible to integrate the individual and corporate income taxes completely, for example, by treating corporations like partnerships (in which case, all profits would "flow through" to shareholders, who would pay tax on them, instead of being taxed at the entity level). But many advanced countries provide some sort of relief from double taxation of dividends. The most commonly used means of providing dividend relief is the imputation system, in which the corporate income giving rise to dividends (but not income retained by the corporation) is attributed to shareholders, who are allowed a credit for the part of the corporate tax attributable to such income. An alternative that achieves the same result, at least in principle, is the "split-rate" system, under which corporations pay a lower tax on income that is distributed than on income that is retained. Finally, some countries simply exempt dividends from tax at the shareholder level; unlike the other two alternatives, this does not achieve the goal of taxing distributed corporate equity income at the tax rate of the shareholder if the corporate tax rate and the tax rate of the shareholder are not the same.[7]

7. Suppose that a corporation earns 1,000 of income, pays corporate tax of 50 percent, distributes 400 of after-tax income to a taxpayer subject to a marginal tax rate of 60 percent, and retains 100. Under the imputation system, the shareholder would pay personal tax of 480 on grossed-up dividends of 800 (the amount needed to pay dividends of 400, given the corporate tax rate of 50 percent); net of the imputation credit of 400 the shareholder's tax would be 80. Under the split-rate system, the income giving rise to dividends would not be subject to corporate tax; thus, the corporation could distribute 800, on which the shareholder would pay tax of 480, as under the imputation system. Finally, if dividends were exempt from shareholder tax, distributed corporate-source equity income would be subject only to the corporate-level tax of 400, or 50 percent, instead of the shareholder tax of 480, or 60 percent.

In the absence of integration and inflation (or if there is perfect inflation adjustment of the measurement of income), income taxation produces an entity-level effective tax rate on income from equity investment that is equal to the statutory rate.[8] Under the classical system, distributed earnings are then subject to taxation when received by shareholders, producing an aggregate effective tax rate that exceeds both the corporate and the individual statutory rates. The object of dividend relief is to reduce this aggregate tax to the statutory marginal rate of shareholders (in the case of the imputation and split-rate systems) or the corporation (in the case of the exemption of dividends). In the case of income on debt-financed investment, the entity-level tax is zero, but the effective tax rate paid by the debtholder is the statutory rate; thus, the aggregate effective rate of tax is the statutory rate of the debtholder.

These results—an effective corporate tax rate on income from equity-financed investment equal to the statutory rate, a zero corporate effective rate on income from debt-financed investment, and aggregate effective rates on distributed earnings and interest equal to the statutory rate of the recipient—provide a useful benchmark against which to appraise the Swedish tax system. While a pure income tax distorts the choice between saving and consumption, and thus the levels of saving and investment, by taxing future consumption more heavily than present consumption, it does not distort current decisions on the allocation of funds between competing investments.

Inflation generally causes income from capital to be measured inaccurately. This is most easily seen in the case of the sale of a capital asset that was bought for 100 and sold for 300 following a period during which prices have doubled. In the absence of inflation adjustment, tax would be paid on the nominal gain of 200 rather than on the real gain of 100; if prices had quadrupled, tax would again be levied on 200, despite a real loss of 100. Similar reasoning applies to the cost of goods sold from inventory and to depreciation allowances; only explicit adjustment of purchase prices for the increase in the general price level generally avoids mismeasurement of income.[9] Allowance of deductions for the full nominal amount of interest expense and inclusion of nominal interest income in taxable income also cause income to be misstated; accurate measurement of income would recognize that part of nominal interest payments compensate only for the loss of real value resulting from the erosion of principal—and that it may even fail to do that fully, in the case of unexpected inflation. In calculating marginal effective tax rates in a world of inflation, it is necessary to take account of these effects.

8. It is difficult to differentiate clearly between corporate and shareholder taxes in the case of the imputation system. The interpretation of aggregate (corporate and individual) tax rates is more straightforward.

9. It is sometimes thought that the use of last-in, first-out (LIFO) accounting for inventories avoids this problem. In fact, the use of LIFO eliminates the effects of shifts in relative prices as well as changes in the general price level.

The Consumption Tax Model

The second competing model for tax policy is the consumption-based direct tax. Under it, immediate deduction (expensing) is allowed for all business purchases, including depreciable assets and additions to inventories. (Thus, there are no depreciation allowances and no deductions for cost of goods sold.) As a result of expensing, the marginal effective entity-level tax rate on income from equity-financed investment is zero.[10] There are two alternative methods of treating debt, at both the entity level and the debtholder level. One is to ignore debt entirely; thus, interest is neither taxable nor deductible. The other is to treat interest as under the income tax but to include proceeds of borrowing in the tax base and allow a deduction for lending and the repayment of debt. These two methods are (under rather stringent circumstances) equivalent in present-value terms to each other and to the exemption of interest income and expense. In short, the marginal effective tax rate on income from business and capital under the consumption-based direct tax is identically zero for both entities and individuals (again, under stringent assumptions). This result is invariant to the rate of inflation (other than that between the time an asset is bought and the time a deduction is taken for it) since inflation does not have the chance to erode the value of expensed purchases and either debt is ignored for tax purposes or the effect of inflation on the real value of debt principal and interest offset each other.

Like the results for the pure income tax, the results for the consumption-based direct tax—zero marginal effective tax rates—provide a useful benchmark for the appraisal of the Swedish tax system. Besides being neutral with regard to the saving-consumption choice (unlike the income tax) as well as the allocation of current investment (like the income tax), the zero METR inherent in the consumption-based direct tax is potentially attractive for a small open economy that is interested in attracting foreign investment.[11]

Problems with "Hybrid" Systems

No country applies either of these models in its pure form. The failure to utilize the consumption tax model can be explained by several factors, including the novelty of the idea, the distributional implications of exempting the

10. One way of seeing this is to think of the government as a partner in all investments. When a taxpayer subject to a 40 percent tax rate makes an investment, that taxpayer must put up only 60 percent of the funds for the investment; the government contributes the rest, in the form of reduced tax receipts. Then the taxpayer receives 60 percent of the return and the government the rest. Since the taxpayer receives 60 percent of the return on 60 percent of the investment, the taxpayer's marginal effective tax rate is zero.

11. The issue is more complicated than this. The zero METR would presumably be attractive to investors from countries that exempt foreign-source income but not necessarily to those from countries that tax the worldwide income of their investors and allow credits for source-country taxes—unless such investors have excess foreign tax credits or defer repatriation of earnings. Also, the fear that the consumption-based direct tax might not be eligible for foreign tax credits has thus far prevented any country from adopting such a tax, except for small businesses.

return from capital, problems of transition, and uncertainty about whether the United States (and perhaps other countries that tax the worldwide income of their taxpayers) would allow credits for taxes paid to source countries using the consumption model. Even so, the tax laws of many countries contain provisions that are consistent with the consumption tax model. These do not, by themselves, constitute a coherent consumption-based tax, and they are inconsistent with the income tax model.

The tax laws of all countries contain provisions that are inconsistent with the income tax model, which commonly forms the conceptual basis for such laws. Among common examples are the acceleration of depreciation allowances and the exemption of certain forms of income. Few countries provide comprehensive inflation adjustment for the measurement of income, except those experiencing high rates of inflation, but many laws include provisions that have been justified as ad hoc responses to inflation; accelerated depreciation is one of these. Such ad hoc provisions are unlikely to compensate adequately for inflation, except at one level of inflation.

Inconsistent treatment of various transactions, including piecemeal adoption of selected features of the consumption tax model (e.g., expensing of depreciable assets while providing income tax treatment of interest expense) and the failure to deal with inflation in a comprehensive manner, creates opportunities for tax planning or "tax arbitrage." Steuerle (1985, 2) provides a description of tax arbitrage and its effects that is worth quoting at length because it describes so well what happened during the 1980s in Sweden as well as in the United States:

> Tax and loan considerations come together in part through tax arbitrage—basically a process whereby taxpayers borrow for the purpose of purchasing [tax-]preferred assets. The difference in the tax treatment of receipts of preferred income, on the one hand, and deductions of interest payments received [*sic*], on the other, has an enormous effect on almost all investment decisions. Tax arbitrage is an important determinant of which investments are made, of who will own particular types of assets, and how large aggregate demand will be for loans. Many loans and tax reductions are provided to persons who play tax arbitrage "games" in which no additional saving or investment is generated in the economy. . . .
>
> All these problems are exacerbated by inflation. A higher inflation rate raises interest rates and usually makes tax arbitrage more profitable per dollar of borrowing and investment. Some investment uses capital unproductively because the value of output made possible by the investment is actually less than the cost of the investment itself.

The overall result of the "Chinese menu" approach to tax policy (some provisions from the income tax column and some from the consumption tax column) is the distortion of economic choices, inequities, the perception that the system is unfair, and complexity, as efforts are made to prevent abuse.

A convenient way to express the distortionary influences of taxation is to

calculate marginal effective tax rates (METRs). The METR is the percentage by which taxation reduces the return to capital on an investment that, in the absence of taxation, would be on the borderline between being worthwhile and not being worthwhile. Such calculations consider the effects of inflation, as well as the provisions of tax law, and can be calculated for the corporate and individual income tax separately or for the two combined. METRs can exceed 100 percent, or they can be negative; negative METRs occur when the "after-tax" return to an investment exceeds the before-tax return, implying that the tax system provides a subsidy. If depreciation is accelerated, the marginal effective tax rate on income from equity-financed investment falls below the statutory rate. If the cost of depreciable assets can be deducted in the year of acquisition, the METR on income from equity-financed investments is zero. (The deduction reduces the net cost of the investment by a percentage equal to the statutory tax rate; since taxation reduces the return to the investment by the same fraction, the effect is the same as if there were no taxation.) If interest deductions are allowed for investment that benefits from accelerated depreciation, the METR at the corporate level can be negative. Combining consumption tax treatment of depreciable assets (expensing) with allowance of interest deductions creates large subsidies to debt-financed investments. This is especially true where deductions are allowed for the full amount of interest expense, with no adjustment for inflation.

3.1.2 The Prereform Swedish Model

Direct taxation in Sweden has followed neither the income tax nor the consumption tax model; it was more accurately characterized as a hybrid system. This can be seen by examining structural features of the Swedish income tax.

In 1980, the personal income tax included, in principle, all returns to capital. The sum of capital income and labor income was taxed at graduated rates. Despite the appearance of progressive taxation (at least intended progressivity), the outcome was, in reality, not progressive. Because provisions consistent with the consumption tax model were combined with income tax provisions, there were opportunities for tax arbitrage.

The deviation from the pure income tax model consisted in three main circumstances. First, inflation adjustment depended on type of asset. Second, capital gains were taxed when assets were sold, not when accrued. Third, the return to some assets was tax exempt.

While interest income and interest expense were (and still are) taxed on a nominal basis without inflation adjustment, capital gains on shares were fully taxable only if realized within two years after acquisition; only 40 percent of gains on assets held for more than two years were subject to tax. Moreover, imputed income from owner-occupied houses and any capital gain on real estate were assessed on an inflation-adjusted basis. This, together with the deduction for mortgage interest, provided an attractive opportunity for tax arbitrage—borrowing to invest in owner-occupied housing.

Since capital gains were not taxed on accrual, the effective tax rate on capital

gains was lower than the statutory rate. In this situation, the owner of the asset may explicitly postpone taxation of a gain until the asset is sold. This implies an interest-free loan from the government to the taxpayer, compared to the pure income tax situation. One problem, seen from the standpoint of the government, is that the taxpayer may chose to liquidate assets with losses as soon as they accrue while the taxation of capital gains is postponed. In principle, there are two ways to solve this problem. The first one is when capital losses only may be deducted from capital gains. The second one is to admit only a fraction of the loss to be deducted from ordinary income. In 1980, the first principle was used.

Apart from the implicit return to consumer durables, primarily pension capital was tax exempt and therefore treated in accordance with the consumption tax model. Contributions were deductible and therefore exempt from income tax. As a result, the tax on the part of the income that was saved could also be saved with the government as a sleeping partner. When the pension finally was paid out, the government withdrew its investment. Since no taxation took place at the fund level, this implies that the effective rate on pension capital was zero (see also n. 10 above).

The investment incentives that have been available at various times are more consistent with the consumption tax model than the income tax model. In present-value terms, they were in some cases (investment in machinery) more generous than immediate expensing; that is, the present value of the deductions for depreciation allowances including the value of the investment grants exceeded 100 percent of the investment outlays. Combined with the continued existence of full deduction for nominal interest expenses, they resulted in negative METRs.

3.1.3 The 1985 and 1991 Tax Reforms

The development between 1985 and 1991 is best characterized as rate reducing and neutrality increasing. The top marginal income tax rate on labor dropped from 80 percent in 1985 to 51 percent in 1991. The total top marginal effect fell from 88 to 74 percent.[12] Neutrality was increased by base-broadening measures. Most fringe benefits became taxable income valued at market price, and the tax subsidy to interest expenses was reduced from 50 to 30 percent. The system was moved toward the income tax model as the returns to pension capital were taxed at the fund level, first by a special tax in 1987 (*engångsskatten*) and then, from 1991, by a permanent tax. A main principle for the taxation of capital income was introduced in 1991; all returns should be taxed at 30 percent without inflation adjustment. At a rate of inflation of 4 percent and a real rate of interest of 3 percent, this implied a tax rate of 70 percent in real terms.

Still, there were several exceptions from the pure income tax model. As

12. This number includes taxation within the social security system, taxes on goods, and marginal effects due to income-dependent housing allowances.

mentioned, inflation was not considered. Also, capital gains were taxed (and still are) on realization, not when accrued. Seventy percent of losses could be deducted from ordinary income instead of from capital gains. Certain types of income were also taxed at a lower rate—primarily capital gains on owner-occupied housing and special tax-favored savings accounts and funds.

The most important part of the reform was, however, the substitution of progressive capital income taxation by proportional taxation. This took place by separating taxation of capital income from that of labor income. The main objective was to achieve a better correspondence between intended and actual taxation of *labor* income by reducing the possibility of affecting the taxation of labor income by interest expenses.

Corporate taxation was also designed in order to increase neutrality. The statutory tax rate was decreased to 30 percent, while possibilities to build up untaxed reserves were reduced substantially. These had earlier been associated with certain types of assets and had therefore strongly affected the investment choice. In 1991, a new possibility based on the own capital of the firm was introduced—the tax equalization reserve. In this way, the importance of the composition of assets in the company for tax reasons was considerably reduced.

In 1994, the right-wing government took a further step toward neutrality in the financial decisions of corporations by abolishing the economic double taxation of corporate profits. In principle, dividends distributed by Swedish corporations became tax exempt, and the tax rate on capital gains was set at 12.5 percent. The system was thereby brought more in line with the pure income tax model. However, the new Social Democratic government has decided to reintroduce double taxation of corporate profits, which will also reintroduce distortions in corporate financial decisions.

3.2 Statistics Describing the Swedish Tax System

3.2.1 Macro Data

Taxation may be characterized in several ways. Here, we begin by describing the total tax burden and continue by analyzing the structure.

Figure 3.2 and table 3.1 illustrate the development of total tax revenue as a percentage of GDP in Sweden, the United States, and the average of the OECD countries from 1955 to the present. Figure 3.10 below shows the situation in 1992 for each OECD country. During the period 1955–91, tax revenues rose in Sweden from 25.5 to 53 percent of GDP, while they increased from 24 to only 39 percent on average in OECD countries. This implies a radically more rapid growth of tax revenues in Sweden than in other developed countries. An expected consequence of this expansion should be rising welfare costs of taxation owing to increasing distortions in the economy.

Table 3.1 Total Tax Revenues as a Percentage of GDP

	1955	1965	1975	1985	1990	1991	1992	1993
Sweden	25.5	35.2	43.6	50.4	56.9	53.2	51.1	50.3
United States	23.6	25.8	29.0	28.7	29.5	29.8	29.4	N.A
OECD:								
Europe	25.1	27.5	34.1	38.8	40.0	40.4	N.A.	N.A.
Unweighted average	24.0	26.7	32.9	37.1	38.6	38.7	N.A.	N.A.

Sources: Revenue statistics of OECD member countries (OECD 1993), except for Sweden in 1993, which is from Konjunkturinstitutet (1994).

Note: N.A. = not available.

An even more striking picture appears when public expenditures as a percentage of GDP are reported (see table 3.2). In 1965, public expenditures were 36.1 percent in Sweden, 27.9 percent in the United States, and 36.2 percent on average in OECD Europe. By 1992, they had increased to 67.3 percent in Sweden but to only 35.4 percent in the United States and 50.7 percent in the OECD. Since expenditures must always be financed and it may be necessary to raise future taxes to repay public debt, this measure is more appropriate than the ratio of taxes to GDP when evaluating the burden of the public sector. The discrepancy between revenues and expenditures also has important generational implications.

Over time, an increasing share of total tax revenues has been derived from consumption taxation. This can be seen most clearly in the relative growth of revenues from indirect taxes.

Since the typical feature of the consumption tax model is that the effective tax rate on capital income is zero, one way of evaluating the extent of income taxation is to look at the total amount of taxes on capital income compared to taxes on labor income. In 1965, taxes on capital income constituted 11 percent of total tax revenues, while, in 1991, they were below 7 percent. However, behind these numbers there are changes toward both models.

The great movement toward consumption taxation is seen in the increasing part of tax revenues raised by social security fees based on labor income. Since returns to capital are not affected by these fees, increasing social security fees implies a move from income taxation to consumption taxation. In 1965, they amounted to 12 percent of total tax revenues but had increased to 32 percent in 1991. Although higher social security fees are accompanied by more social security benefits, it is clear that a large part of the fees may be considered as pure taxes.

Table 3.3 reports the structure of taxation in Sweden, the United States, and OECD Europe for 1965, 1990, and 1991. Figure 3.11 below shows the situation in 1991 for the OECD countries. It is striking that Swedish taxes on personal income were a substantially higher multiple of OECD taxes of the same type in 1965 than in 1990. The relative decline in reliance on the personal

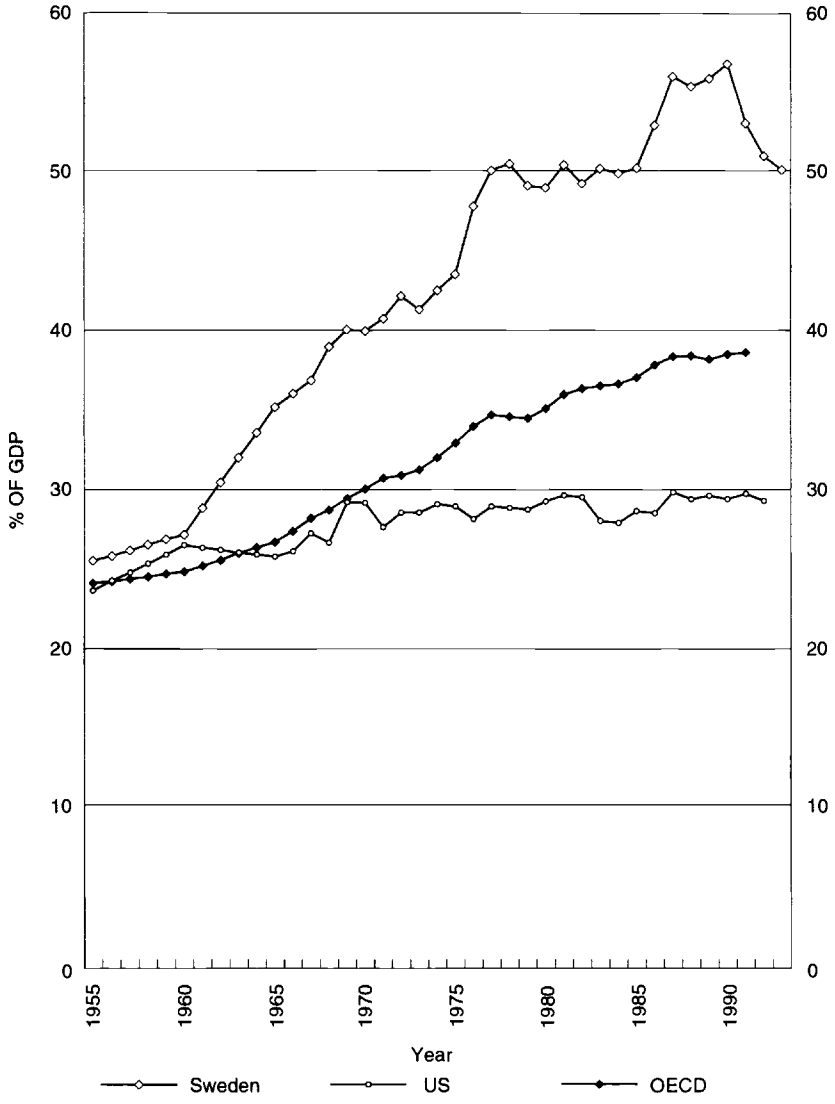

Fig. 3.2 Tax revenues as a percentage of GDP
Source: See table 3.1.

income tax in Sweden has been roughly offset by greater reliance on payroll taxes, especially the expansion of social security contributions. This change implies a shift from progressive taxation to proportional. A possible explanation for this shift may be the relative ease in increasing the tax burden in this way compared to increased income taxation. Other possible interpretations in-

Table 3.2 **Total Government Expenditures as a Percentage of GDP**

	1965	1975	1985	1990	1991	1992	1993
Sweden	36.1	48.4	63.3	59.1	61.5	67.3	73.6
United States	27.9	33.5	33.2	33.3	34.2	35.4	N.A.
OECD:							
Europe, weighted average[a]	36.2	43.7	49.2	47.8	49.4	50.7	N.A.
Total, weighted average[a]	32.0	36.2	39.5	39.0	40.0	41.2	N.A.

Sources: OECD, *Economic Outlook,* nos. 34 and 53, except for Sweden in 1993, which is from Konjunkturinstitutet (1994).

Note: N.A. = not available.

[a]GDP weights.

Table 3.3 **Different Taxes as Percentage of Total Taxation**

	1965			1990			1991		
	Sweden	United States	OECD Europe	Sweden	United States	OECD Europe	Sweden	United States	OECD Europe
Personal income	48.7	30.5	25.0	37.9	35.8	27.9	34.0	34.9	28.1
Profits	6.1	15.8	6.4	3.1	7.4	6.8	3.1	7.3	6.4
Goods and services	31.2	21.9	40.1	24.6	16.5	32.0	27.1	16.8	32.1
Social security	12.1	16.4	21.6	30.8	29.5	26.7	31.7	29.8	27.2
Wealth and property	1.8	15.3	6.7	3.5	10.8	4.5	4.1	11.2	4.4
Other taxes						1.4			1.5

Souce: Revenue statistics of OECD member countries (OECD 1993).

clude the demise of redistribution as a prime goal for tax policy and the possibility that taxpayers perceive a strong link between payroll taxes and social security benefits. An important question in this context is the extent to which social security fees are actually seen as taxes or as substitutes for private insurance premiums. If they are seen as akin to insurance premiums that purchase increased benefits, they are not likely to have the adverse incentive effects commonly attributed to high taxes.

Table 3.3 also shows the effects of the tax reform of 1991 on the structure of taxation. The share of revenues stemming from the personal income tax fell sharply, while the share from taxes on goods and services rose. This reflects the elimination of the central government income tax for most income earners, in combination with the broadened tax base of the value added tax.

Another recent development in the Swedish tax structure is the decline in corporate taxes and the rise in taxes on wealth and immovable property. This is probably a consequence of international economic integration. An interesting question in this context is the relation between taxes on the income and consumption of individuals (individual income tax, social security fees, and taxes on consumption), on the one hand, and taxes on profits, wealth, and property,

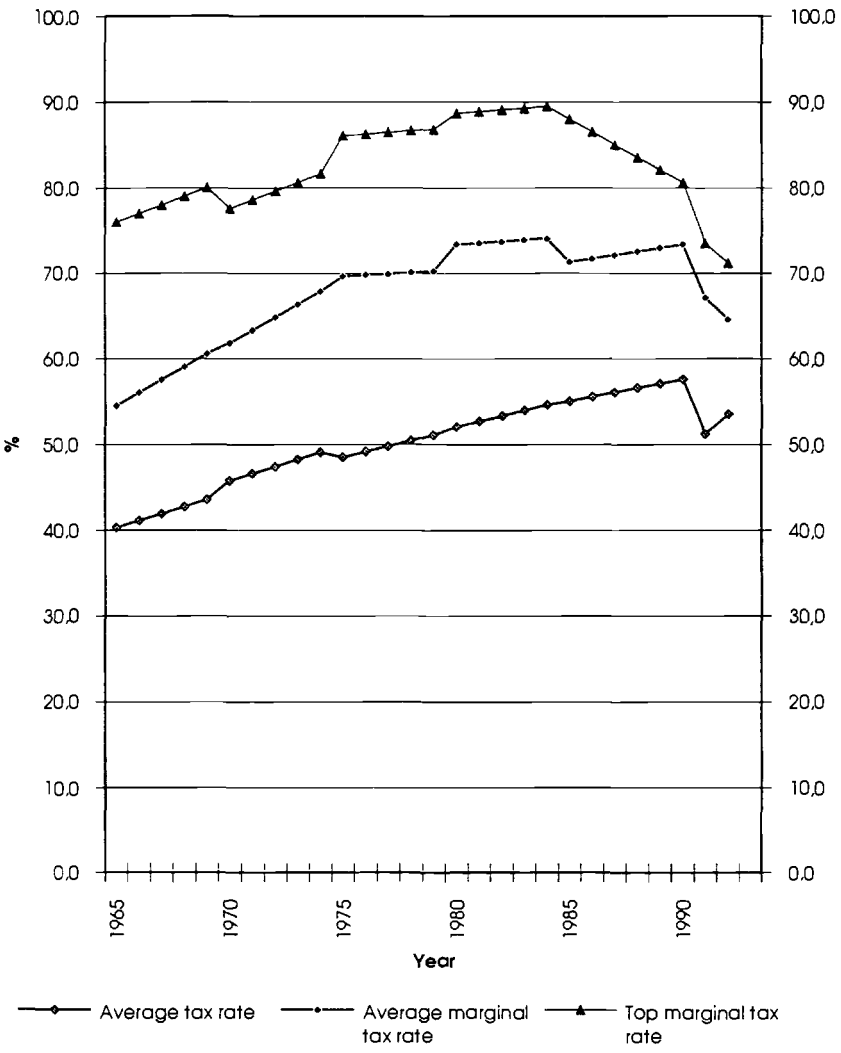

Fig. 3.3 Average and marginal tax rates on labor income
Source: See tables 3.4 and 3.5.

on the other hand. The proportion of the first type of taxes rose from about 87 percent in 1955 to 93 percent in 1991. This does not, however, necessarily imply that the taxation of capital income declined during the period since individual income includes returns to capital and social security contributions may not fully be viewed as taxes, as pointed out above. A more exact analysis of this issue is therefore reported in table 3.4 and shown in figures 3.3 and 3.4.

Taxes on capital income can be defined as taxes that drive a wedge between

Table 3.4 Average Taxes on Labor and Capital

	1965	1970	1975	1980	1985	1990	1991	1992
Taxes on labor income:[a]								
As a percentage of GDP	31.4	36.8	41.2	47.7	47.7	53.4	49.0	49.5
As a percentage of labor income	45.1	52.4	57.9	65.2	68.5	71.7	65.8	68.2
Adjusted measure[b]	40.3	45.8	48.5	52.0	55.0	57.6	51.2	53.5
Taxes on capital income:								
Corporate tax, as a percentage of GDP	2.2	1.8	1.9	1.2	1.8	1.8	1.6	.9
Tax on ownership, as a percentage of GDP	1.8	1.6	.7	.1	.8	1.6	2.4	2.6
Total, as a percentage of capital income	19.4	17.7	15.0	8.8	15.2	28.3	33.4	22.0
Total taxes:								
As a percentage of GDP	35.2	40.2	43.6	49.0	50.4	56.9	53.2	52.1
Adjusted measure[b]	35.5	39.8	41.9	45.0	47.2	53.6	48.8	49.1
Labor	.70	.70	.71	.73	.70	.74	.74	.73
Capital	.20	.19	.18	.14	.17	.12	.12	.12
Depreciation	.10	.11	.11	.12	.13	.14	.14	.15

Source: Norrman (1995a).

[a]Taxes on labor income include income taxes on labor, social security fees, and taxes on goods and services.

[b]The adjusted measure is calculated as percentage of labor income and considers to what extent social security benefits and subsidies reduce taxes.

the gross return to capital and the net return to the investor. All other taxes are treated as taxes on labor income. Using this definition, taxes on goods and services are taxes on labor. Taxes on labor have grown in step with the growth of total taxation during the period 1965–92. This is not surprising since labor income constitutes between 78 and 88 percent of total factor incomes net of depreciation during the period and therefore must serve as the major source of tax revenues.

Taxation of labor income has increased from 45.1 to 68.2 percent of such income during this period. A substantial part of this development can be traced to the expansion of the social security system, which includes pension benefits, sickness insurance, work injury insurance, work environment protection, and wage guarantees. The calculation of an alternative measure that considers this fact seems appropriate. Table 3.4 reports an adjusted measure of taxes on labor income. The measure considers the extent to which social security benefits offset the tax component of the contributions. Further, it also includes an assessment of the size of negative consumption taxes, that is, subsidies that reduce the effective tax rate on consumption. A more detailed description of the calculations is found in Norrman (1995a). The adjusted measure discloses both

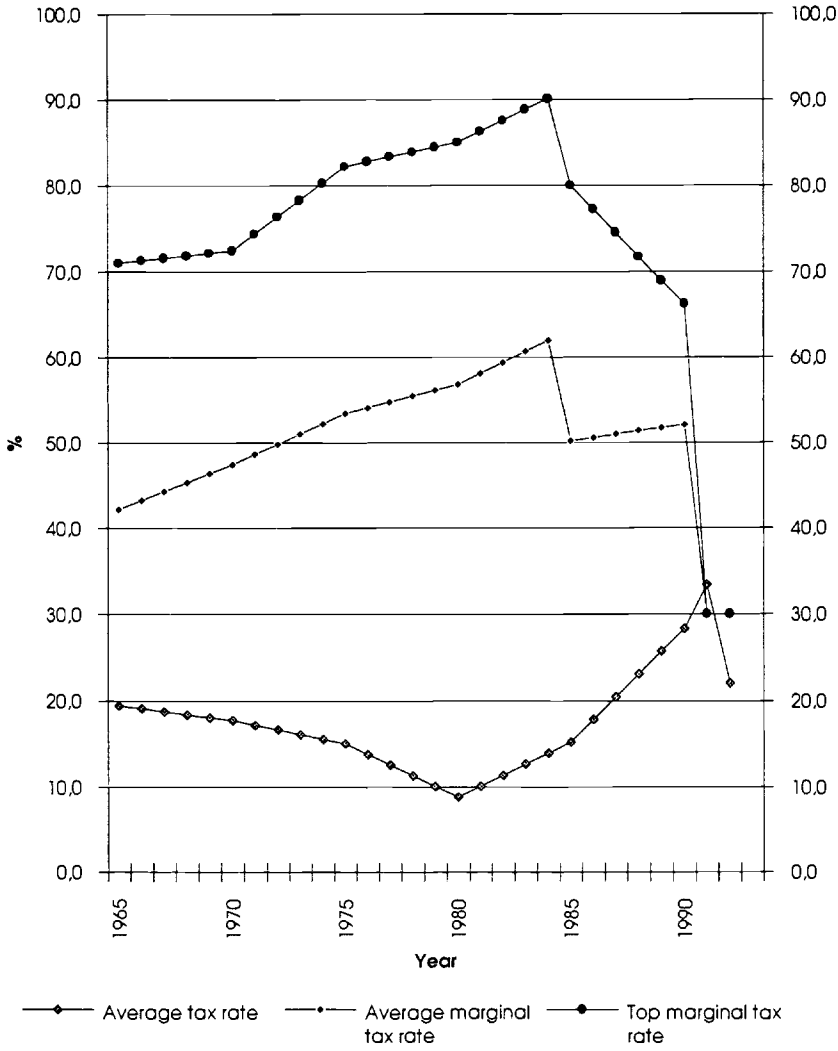

Fig. 3.4 Average and marginal tax rates on capital income
Source: See tables 3.4 and 3.5.

a lower level of taxation of labor income and less rapid growth, from 40.3 to 53.5 percent.

Another way to investigate how taxes influence the situation for households is to look at the importance of transfers in relation to total disposable income. This is obviously closely related to the development of the welfare state. In 1975, labor and capital income constituted 65.8 percent of disposable income for all households and 85.8 percent for households eighteen to sixty-four years

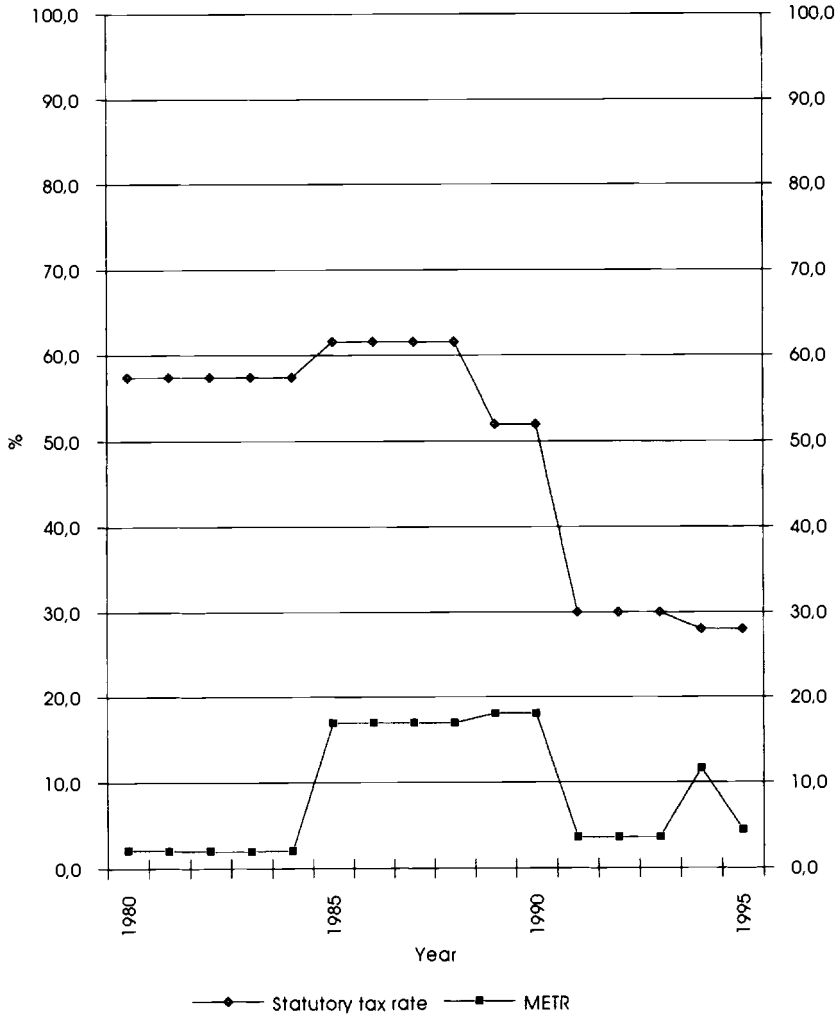

Fig. 3.5 Statutory and marginal effective corporate tax rates on marginal investments
Source: See tables 3.6 and 3.12.

of age. In 1990, the corresponding numbers were 61.3 and 79.4 percent. These numbers reflect the fact that taxable transfers as part of disposable income increased during this period (Jansson and Sandqvist 1993).[13]

When it comes to taxes on capital income, the numbers reported reflect the other side of the same coin; capital income provides only a small tax base. What is more interesting is the fact that capital income appears to be taxed at

13. Taxable transfers are typically income related and substitutes for ordinary income.

a lower rate on average than labor income. A qualification should be made here, however. The tax system has only to a minor extent been constructed to adjust for the effects of inflation. (A lender must, e.g., pay tax on his or her nominal interest income no matter whether the inflation rate is 0 or 10 percent.) Since the national accounts do not consider changes in the real value of capital in calculating income from capital, inflation causes underestimation of the real tax rates on capital income. However, if households respond to inflation by investing in real assets and keeping negative financial holdings, which typically has been the case in Sweden during the 1970s and 1980s, inflation may decrease the tax rate on capital instead of increasing it. A reasonable conclusion is that middle-aged households, who generally keep negative financial assets, have profited from inflation while elderly people have incurred losses on their positive financial holdings.

Taxation of labor displays a steady growth during the period 1965–90, whereas taxation of capital exhibits a U-shaped form over time, with relatively high rates in the beginning of the period, followed by low rates around 1980, and a sharp increase in the 1980s. It is also noticeable that taxes on immovable capital have grown substantially during the latter part of the period. Finally, the reform of 1991 marks a change in the course of tax policy; taxation of labor was decreased considerably, while taxation of capital was increased.

3.2.2 Micro Data

Average tax rates are not as important as marginal tax rates in analyzing the influence of the tax system on the behavior of individuals and corporations. Table 3.5 presents calculations of the average and top marginal tax rates and marginal effective tax rates on labor and capital income during the period 1965–93. The latter numbers include the influence of income-related transfers such as child care.

Figure 3.3 shows an increase in the average marginal tax rates and effective tax rates on labor income from the beginning of the period to the middle, followed by a decline toward the level that was prevailing around 1970. For individuals facing the top marginal effective tax rates, the most important event is the drop in the early 1990s from above 80 percent to nearly 70 percent. Also noticeable is the fact that the average marginal effective tax rates in the middle of the 1980s were higher than the top marginal effective tax rates in the 1990s.

The development of capital income taxation (see fig. 3.4) is similar to that of labor income taxation, except that the drop is still greater at the beginning of the 1990s. Again, the effects of inflation are not included in these numbers.

We add two more numbers of importance in order to assess the incentives of the tax system on portfolio composition. First, the marginal effective tax rates on capital income reported above relate to the taxation of current income, that is, interest payments and dividends. There were no limitations on the deduction of interest expenses until the beginning of the 1980s. Thus, during the 1970s, it became common to deduct interest expense against labor income that

Table 3.5 **Average and Top Marginal Tax Rates on Labor and Capital Income**

	1965	1970	1975	1980	1985	1990	1991	1992	1993
Labor income:									
Average marginal tax rate[a]	42.2	47.4	53.4	56.8	50.2	52.1	39.0	39.0	39.0
Average marginal effective tax rate[a]	54.5	61.8	69.6	73.4	71.3	73.4	67.1	64.6	61.4
Top marginal tax rate	71.0	72.4	82.2	85.0	80.0	66.2	51.2	51.0	51.0
Top marginal effective tax rate	76.0	77.6	86.1	88.7	88.0	80.6	73.5	71.2	70.3
Capital income:									
Average marginal tax rate[b]	42.2	47.4	53.4	56.8	50.2	52.1	30.0	30.0	30.0
Top marginal tax rate[b]	71.0	72.4	82.2	85.0	80.0	66.2	30.0	30.0	30.0
Effective tax rate on capital gains on shares	.0	7.5	8.2	28.7	25.7	23.5	16.6	13.9	13.9
Maximum value of interest deduction	71.0	72.4	82.2	85.0	50.0	40.0	30.0	30.0	30.0

Source: Norrman (1995a).

[a]Average marginal tax rates are calculated as the weighted average over all income groups of their marginal tax rates. Effective rates include social security fees, taxes on goods and services, and housing allowances.

[b]The effective tax rates equal the marginal tax rates.

would otherwise be taxed at high tax rates in response to increasing marginal tax rates.

Second, the effective tax rate on capital gains on shares is calculated assuming an average holding period of ten years. The possibility of deducting interest payments combined with the low tax on capital gains (e.g., from investment in real estate) provided an easy way to convert high-taxed labor income into low-taxed capital income. This possibility seems to be much smaller after the 1991 tax reform. Together with abnormally high real interest rates and the deep recession, this has contributed to the sharp decline of the real estate market.

As was shown in table 3.3 above, corporate taxation fell during the period 1965–91. Figure 3.5 shows the statutory tax rates on corporate profits during the period 1980–95. The tax rate was raised in the mid-1980s owing to the introduction of the profit-sharing tax (which was applied only on profits above a certain level). The purpose of the tax was to finance the so-called wage earners' fund system (Löntagarfonderna). In the mid-1980s, corporate taxation at the local government level was abolished. The numbers in table 3.6, also shown in figure 3.5, are calculated given the profit-sharing tax and the deductibility of the local tax before the change in the tax system.

We return to the tax wedges on different types of investments and their finance in section 3.4 below.

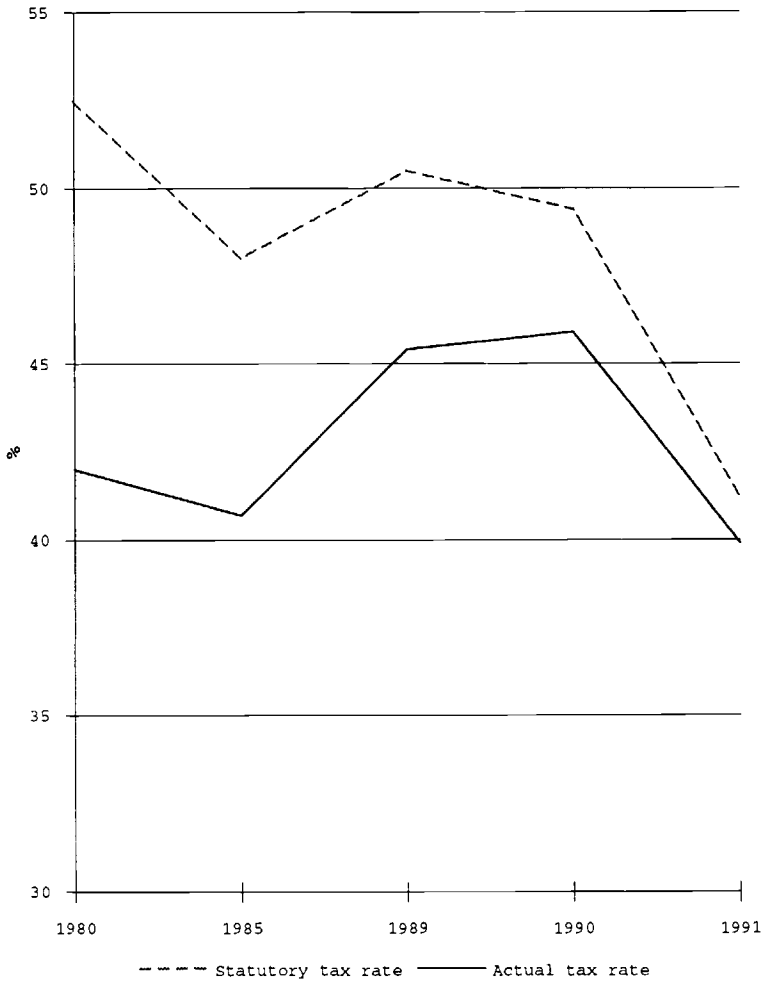

Fig. 3.6 Statutory and actual tax rate on labor earnings—top decile
Source: Malmer, Persson, and Tengblad (1994).

3.3 Distributional Effects of Taxation

3.3.1 Incidence Studies

The data presented in the previous section show that there have been strong incentives for high-income earners to borrow in order to invest in low-taxed assets and to own relatively small amounts of taxable wealth.[14] The ability to use tax planning to avoid progression would also mean less income redistribu-

14. Low taxation could be within either the income tax system or the wealth tax.

Table 3.6 **Statutory Corporate Tax Rates**

	1965	1970	1975	1980	1985	1990	1991	1992	1993
Including profit-sharing tax	50.3	52.6	55.1	57.4	61.6	52.0	30.0	30.0	30.0
Excluding profit-sharing tax	50.3	52.6	55.1	57.4	52.0	40.0	30.0	30.0	30.0

Sources: Hansson (1983), Statistiska Meddelanden (1992), Statistiska Centralbyrån (1992), and own calculations.

tion than implied by the highly progressive personal income tax schedule. All these expectations were more or less confirmed by several studies during the 1980s (see, e.g., Agell and Edin 1988; Hansson and Norrman 1986; and Jansson 1990). The results of one of these are reported in table 3.7.

Column 1 of table 3.7 shows the distribution of taxes on personal income, as defined by the tax code for 1985. Since lower deciles were paying a lower and higher deciles a higher proportion of income in taxes, compared to the average tax rate, it is obvious that the tax schedule was progressive.[15] However, if taxable deductions for negative capital income are eliminated from the definition of income (the denominator in the calculation), the degree of progression is much lower since interest deductions are claimed disproportionately by those with high incomes.[16] This is confirmed by the fact that the tax rate for people in high deciles was substantially lower if taxes are compared to the assessed income before such deductions, as in column 2. The presence of huge deductions at the top of the income scale dramatically reduced the "effective" progression compared to the statutory one.[17]

In order better to capture the living standard of households, the third column of table 3.7 relates taxes to household income corrected for the effects of inflation on the value of monetary assets, for certain nontaxable transfers, and for the number of household members (consumer units). This computation increases the calculated tax rate for low-income households and decreases it for high-income households.

Further study shows clearly that capital income taxation, especially the asymmetries in the taxation of different returns to capital mentioned above, decreased the progressivity of taxes on labor income. In 1985, the deciles with low income were paying a higher fraction of their capital income in taxes than

15. Another conclusion from the investigation was that progression was reduced when deciles were calculated according to income of households compared to income of individuals. The underlying explanation was that low-income individuals typically are living with someone who earns more than they themselves do, while high-income earners live with people who are paid less.

16. If someone had a labor income of 200,000, paid 50,000 in taxes, and claimed a 75,000 interest deduction, the tax rate in relation to assessed income (125,000) would be 40 percent (50/125), but it would be only 25 percent in relation to the income before the deduction (50/200).

17. This conclusion is obvious since capital income is taxed on a realization basis; i.e., accrued capital gains on funds invested in appreciating assets are not included in the income concept. Further, returns to consumer durables were not included in the tax base. Since high-income earners typically invested borrowed funds in these "low-taxed" assets, the income concept used for taxation did not manage to capture their full income.

Table 3.7 **The Distribution of Tax Burdens, 1985 (taxes as a percentage of income)**

	Basis for Comparison		
Decile	Assessed Income after Deductions (1)	Assessed Income before Deductions (2)	Gross Income[a] per Consumer Units (3)
1	7.6	2.9	19.0
2	12.0	12.2	17.0
3	19.9	17.8	22.4
4	26.3	24.5	25.1
5	29.7	28.2	27.0
6	31.3	29.8	28.9
7	33.6	31.7	32.1
8	35.1	32.3	32.5
9	36.7	33.3	32.7
10	43.6	35.9	38.2
Average	33.6	30.6	30.4

Source: Hansson and Norrman (1986).

[a]Gross income is defined as assessed income corrected for inflationary gains and losses on monetary assets plus nontaxable transfers and a real return to owner-occupied housing.

deciles with high income (see table 3.8). Indeed, high-income households reported negative capital income. This reflected in part the effect of borrowing by higher-income groups, but it may also be interpreted as a consequence of low taxes on securities with high risk. (See also the effective tax rates on capital gains on shares reported in table 3.5 above.) Since retired individuals typically save in low-risk securities and have low incomes, they were the ones who faced the high tax rates on capital income.

The picture has changed with the tax reform of 1991. A study of the effects of the reform shows that the gap between the statutory tax on labor income—a simulated tax—and tax actually levied decreased substantially for individuals in the top decile of the income distribution between 1980 and 1991 (see Malmer, Persson, and Tengblad 1994, chap. 10).[18] In 1980, the simulated tax on labor income was 52 percent, while the actual tax was 42 percent. In 1991, the simulated tax was 41 percent and the levied tax 40 percent. The main explanation is that, while tax rates were being reduced (thus lowering the simulated tax), borrowing has become considerably more expensive compared to the 1980s since the tax subsidy to interest expenses has decreased from over 85 percent in 1980 to only 30 percent in 1991 (preventing a large drop in the actual rate).

The fact that, although marginal tax rates have been cut substantially, the

18. Malmer, Persson, and Tengblad's investigation is based on individuals twenty to sixty-four years of age and on their individual income, but the conclusion that is drawn here would hardly be affected if deciles were formed according to household income.

Table 3.8 **Capital Income Taxation, 1985 (capital income taxes as a percentage of income)**

Decile	Basis for Comparison: Gross Income per Consumer Units	Basis for Comparison: Potential Income per Consumer Units 45–55 Years of Age
1	4.5	8.7
2	3.0	−.5
3	.5	−.8
4	−.4	−.6
5	−2.1	−.1
6	−1.7	−1.8
7	.2	−3.5
8	−.9	−1.0
9	−2.2	−2.5
10	−1.7	−1.7
Average	−.9	−1.2
Gini coefficients:		
Without capital income taxation	20.6	25.5
With capital income taxation	21.7	25.9

Source: Hansson and Norrman (1986).

average tax rate is roughly the same for individuals in decile 10 in 1991 as in 1980 is shown in another way in table 3.9 and illustrated in figure 3.6. Over the whole period, the total simulated individual income tax was decreased by SKr 16 billion; while the simulated tax on labor income was lowered by SKr 33 billion; the difference is an increase in the simulated taxation of returns to capital. Although simulated taxes on labor income were cut by more than SKr 17 billion for decile 10, actual levied taxes decreased only by SKr 3.5 billion. Base broadening prevented the simulated tax reductions from becoming real for high-income individuals. For deciles 1–7, the tax reform had little effect on tax subsidies to income from capital. For them, the changes in simulated and actual tax are quite similar.

Hansson and Norrman (1986) have shown that progression related more to age and to working time than to ability, defined as potential income from a fixed input of time. This is illustrated by table 3.10. Column 1 repeats the average tax rates, by deciles, from table 3.7 above; it suggests substantial progressivity. Column 2 shows the distribution of taxes for households containing at least one individual between forty-five and fifty-five years of age. A major part of the estimated progression disappears, except in the top decile, if age is kept constant.

Column 3 shows the result when differences in working time are also eliminated. The average weekly working time is calculated for each sex (forty-one hours for men, thirty-one for women). The ratio of this number to the actual

Table 3.9 **Changes in Individual Income Taxation on Labor Income (1991 prices) (change in tax [SKr billion])**

	1980–85	1985–89	1989–91	1980–91
All deciles:				
Simulated tax	−3.5	+18.6	−48.4	−33.3
Actual tax	−.1	+21.1	−36.8	−15.8
Decile 10:				
Simulated tax	−7.4	+4.2	−14.2	−17.3
Actual tax	−2.2	+6.8	−8.1	−3.5
Deciles 8–9:				
Simulated tax	−.9	+5.7	−13.6	−8.8
Actual tax	−1.9	+5.1	−9.5	−6.3
Deciles 1–7:				
Simulated tax	+4.7	+8.6	−20.5	−7.1
Actual tax	+4.0	+9.2	−19.2	−6.0

Source: Malmer, Persson, and Tengblad (1994).

working time of each individual in the forty-five- to fifty-five-year-old age group is then multiplied by his or her actual income to calculate "potential income" for a standard work week. In this way, a new income distribution was constructed in which individuals are classified according to potential income.[19] Since taxes are kept constant, they represent a larger fraction of potential income than of actual income for those who work more than average and a smaller fraction for those who work less than average. The result of this adjustment is interesting, indeed, since all progression vanishes.

These observations are sustained by Björklund (1992), who calculates Gini coefficients for two groups of individuals before and after taxes, both on a single-year basis and over seventeen years (which is a proxy for lifetime income). The relative reduction of inequality induced by the tax system—about 20 percent in both cases—is close to the result of column 1 in table 3.10. Björklund's results are reported in table 3.11.

The interpretation of these results is that, up to 1990, the tax system did not redistribute income between individuals with different potential income or ability but leveled the lifetime income for each household. It may be questioned whether this should be a principal objective for taxation since individuals can use capital markets for this purpose. Genuine redistribution was primarily related to differences in working time, which may also be criticized. People who work more hours in the labor market pay a higher share of income in

19. Thus, the income of a woman who works forty hours per week would be multiplied by a factor 0.78. The woman would be classified as belonging to a lower-income decile when all individuals were classified according to their potential income. She would keep a high tax share, while others working less than average time would be pushed upward in the distributions with a low tax share.

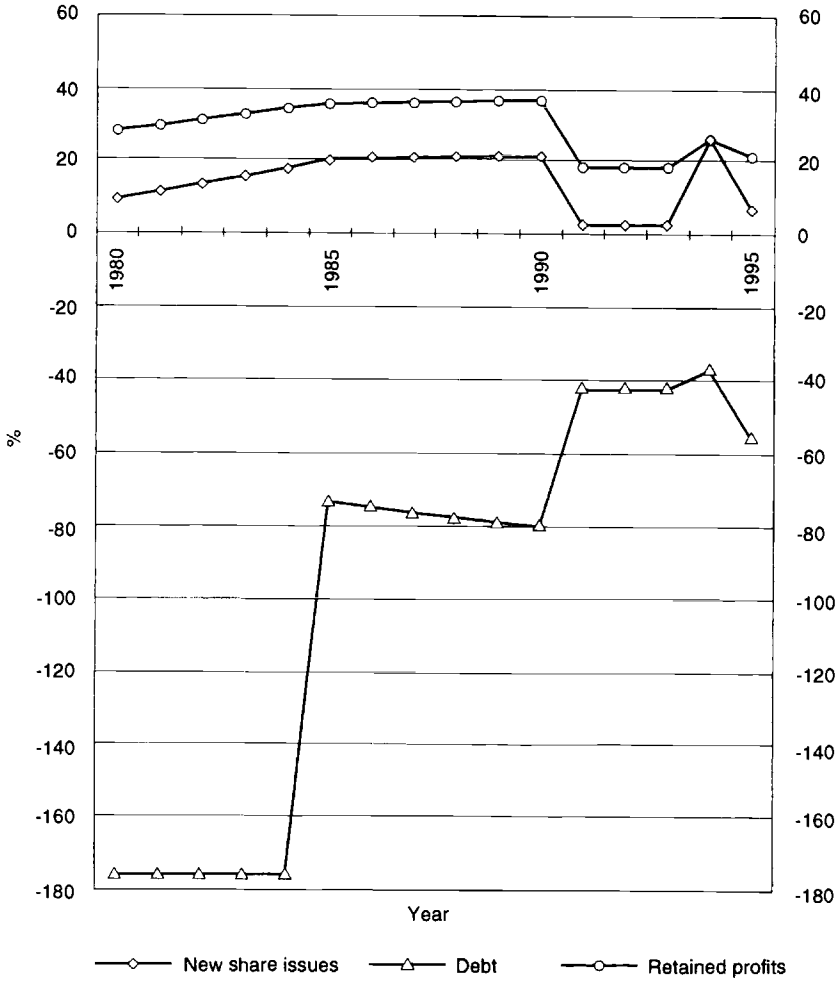

Fig. 3.7 METR on corporate income—type of finance
Source: See table 3.12.

taxes. If taxes are related to potential income, the effect of taxation on the income distribution is negligible or even negative.

Slemrod (1992) contains some results for the United States. He also investigates the income distribution among individuals and calculates the Gini coefficients before taxes as .468 (1972) and .567 (1988). The corresponding numbers after taxes are .445 and .544. These figures indicate a more uneven before-tax distribution of income than in Sweden and a smaller relative reduction in inequality by the tax system, 4 percent (1972) and 5 percent (1988).

Table 3.10 **Taxes as a Percentage of Income in Different Deciles**

Decile	Basis for Comparison: Gross Income per Consumer Units	Gross Income per Consumer Units 45–55 Years Old	Potential Income per Consumer Units 45–55 Years Old
1	19.0	31.7	35.9
2	17.0	27.5	27.2
3	22.4	27.1	27.8
4	25.1	31.3	33.4
5	27.0	32.1	29.9
6	28.9	33.4	31.6
7	32.1	33.0	31.2
8	32.5	33.1	33.0
9	32.7	34.1	32.6
10	38.2	40.7	33.1
Average	30.4	33.5	31.7
Gini coefficients:			
Before taxes	25.9	22.7	25.5
After taxes	21.7	19.7	25.9
Relative inequality reduction (%)[a]	16.2	13.2	−1.6

Source: Hansson and Norrman (1986).

[a]This concept measures how much the tax system decreases the Gini coefficients after taxes compared to before taxes.

Table 3.11 **Gini Coefficients, 1974–90 (individuals 18–30 and 31–43 years of age at the beginning of the period)**

Year	18–30 Years of Age: Before Taxes	After Taxes	Percentage Reduction	31–43 Years of Age: Before Taxes	After Taxes	Percentage Reduction
1975	.353	.302	14.4	.378	.319	15.6
1980	.280	.239	14.6	.293	.233	20.5
1985	.276	.223	19.2	.280	.217	22.5
1990	.276	.219	20.7	.279	.221	20.8
1974–90[a]	.230	.189	17.8	.269	.215	20.1

Source: Björklund (1992).

[a]Discount rate 3 percent (the result is robust to change in the rate).

3.3.2 Evasion and Attitudes toward the Tax System

Reports about the failure of the tax system have been accompanied by a decreasing faith in the capability of the system. Hence, Myrdal (1978) wrote: "The different deductions that can be made from the income tax base make progressivity illusive and turn us all into a nation of cheaters."[20] Hansson (1980) reports a public survey concerning the black market for labor. Nineteen percent of the respondents admit paying for services illegally. The amount evaded would correspond to only 0.5 percent of national income in 1979. However, Hansson estimates the loss of tax revenues due to evasion to be in the interval of 4–8 percent of national income. His opinion is supported by Tengblad (1994), who estimates the loss at 5 percent of GDP.

The National Tax Board (Riksskatteverket 1993) reports that the attitude of taxpayers toward the tax system has changed substantially during the period 1986–92. Prior to the tax reform of 1991, 65 percent disliked the system, another 24 percent did not have any preference, and only 9 percent thought that it was fairly or pretty good. After the reform, the number who disliked the system fell to 36 percent, the indifferent group increased to 37 percent, and over 25 percent said that they liked it. A noteworthy fact is the concern among Swedish households for tax matters after tax reform; 44 percent reported a substantial interest in these issues and 38 percent a moderate interest in 1992.

3.4 Tax Wedges and Effects on Resource Allocation

3.4.1 Marginal Effective Tax Rates on Capital Income

In 1980, the corporate income tax was extremely nonneutral in its effect on various types of investment and sources of finance. Because of the extra investment allowances (provided at a rate of 20 percent for machinery and 10 percent for buildings) and the investment funds system, equipment benefited from a marginal effective tax rate (METR) of roughly −47 percent (i.e., a subsidy of 47 percent).[21] By comparison, investment in buildings was taxed at a rate of 12 percent, and the METR on investment in inventories was about 25 percent, despite the ability to deduct 60 percent of the purchase price of inventories (Norrman 1995b).[22] (These numbers are reported in table 3.12 and illus-

20. "De olika inkomstavdragen m m gör progressiviteten illusorisk och förvandlar oss till ett folk av fifflare."

21. All the calculations reported are based on an assumed inflation rate of 4 percent, unless otherwise noted. In some cases (e.g., investment in buildings and debt financing), the results are quite sensitive to the rate of inflation.

22. The calculations are based on the "fixed r case." Differences between these numbers and numbers presented in Södersten (1991) may be explained by the fact that Södersten's study is based on the "fixed p case." Also, Norrman explicitly considers a risk premium to equity capital. The fixed r case keeps the return after corporate taxes constant (illustrating a case with a fixed world market rate of return), implying for any given saver that all projects yield the same net return but

Table 3.12 **Marginal Effective Corporate Tax Rates on Corporate Income (real interest rate = 3 percent; inflation = 4 percent; risk premia: on loans = 2 percent; on shares = 7 percent)**

	1980	1985	1990	1991	1992	1993	1994	1995
Average METR	2.0	17.0	18.1	3.6	3.6	3.6	11.6	4.9
Type of finance:								
Debt	(−176)	−73.4	−79.5	−41.5	−41.5	−41.5	−36.8	−54.9
Retained profits	28.1	35.9	37.4	18.5	18.5	18.5	25.9	21.4
New share issues	9.4	20.3	21.6	2.5	2.5	2.5	26.2	21.8
Type of investment:								
Equipment	−47.4	10.1	11.0	3.8	3.8	3.8	4.7	5.4
Buildings	11.8	18.2	19.2	2.9	2.9	2.9	12.0	−2.0
Inventories	25.4	25.5	27.2	5.9	5.9	5.9	22.7	24.2

Source: Norrman (1995b).

trated in figs. 3.7 and 3.8. Note that they refer only to the effects of the corporate income tax; effects of the taxation of investors are discussed below.)

Whereas, in the aggregate, the corporate METR on investment financed from retained earnings was about 28 percent, investment financed from new share issues was taxed at an effective rate of 9 percent because of the partial deduction of the part of dividends attributable to new issues. Debt-financed investment received a subsidy above 100 percent.[23] The individual income tax more than offset the corporate-level subsidy to debt-financed investment and increased the taxation of new share issues and retained earnings. The unevenness of tax policy produced the appearance, and perhaps the effect, of horizontal inequity.[24] It also stimulated heavy debt financing compared to other countries; debt financing contributed 40 percent of total finance in Sweden, compared to 20 percent in the United States and Great Britain in 1980 (King and Fullerton 1984, table A4).

The 1985 reforms increased the average corporate METR from 2 to 17 percent.[25] Reflecting the elimination of the subsidy to investment in machinery represented by the extra investment allowance, the corporate METR rose from

that the return will differ between different categories of savers. It also means that the pretax returns will differ between projects according to the tax treatment of different types of investments. The fixed p case, on the other hand, fixes the return before corporate taxes (assuming arbitrage possibilities between firms concerning investment projects).

23. The high negative tax rate on debt finance depends on the fact that, when the tax rate is calculated, the required rate of return is the denominator. In the case of debt finance, this value is close to zero.

24. Horizontal equity is a question of equal treatment of taxpayers in similar circumstances. To the extent that capital is reallocated to equalize after-tax returns, uneven taxation does not actually create horizontal inequities.

25. The difference in inflation rates in the two years—10 percent in 1980 and 5 percent in 1985—complicates comparison of METRs. Assuming a constant inflation rate makes it possible to isolate the effects of changes in tax policy, but it is not clear which year's inflation rate to use in the comparison.

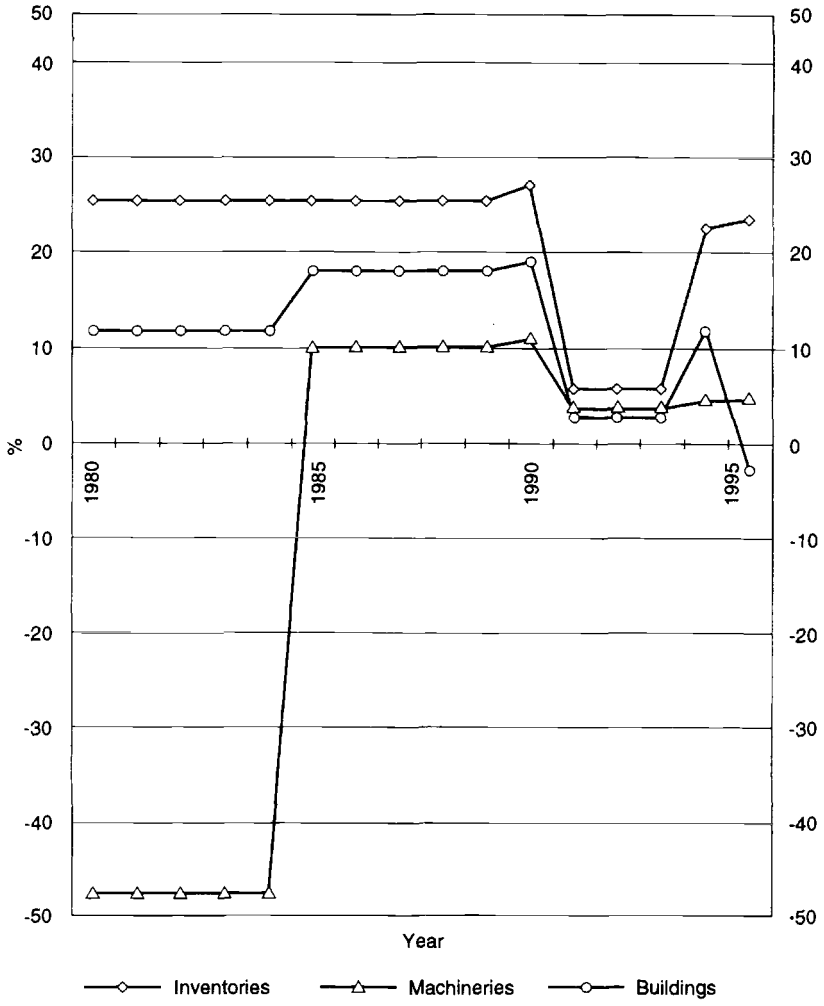

Fig. 3.8 METR on corporate income—type of investment
Source: See table 3.12.

−47 percent in 1980 to +10 percent in 1985. The changes in the METRs on income from investment in buildings and inventories were more modest; the former increased from 12 to 18 percent, and the latter remained unchanged, at 25 percent.

While the 1985 reforms reduced the spread of METRs for investments in various types of assets, the results for different sources of finance and suppliers of funds were not so favorable. Debt-financed investment remained substan-

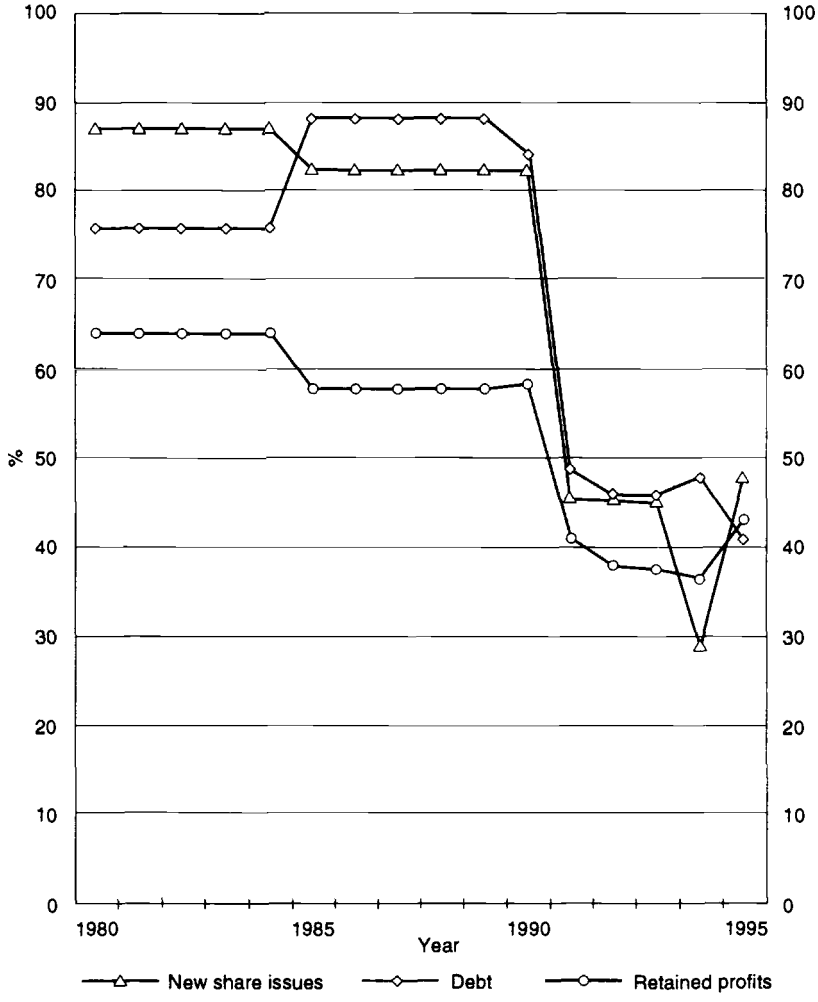

Fig. 3.9 METR on corporate income, including taxes on investors—type of finance
Source: See table 3.13.

tially undertaxed and investments financed from new share issues substantially overtaxed.

The 1991 reforms were more far-reaching. The statutory corporate tax rate was reduced from 52 to 30 percent, the investment funds system was slated for elimination, and the deduction for 50 percent of inventory purchases was eliminated. To provide relief for overtaxation of income from new issues (and

a degree of loss offset), a new "tax equalization reserve" was created; in effect, firms could deduct from taxable income up to 30 percent of net increases in equity. This had the effect of reducing the corporate tax rate to 23 percent. Individuals were (and still are) subject to a flat-rate tax of 30 percent on interest, dividends, and capital gains.

As can be seen in table 3.12, the 1991 reform reduced the overall corporate METR, compared to 1985, from 17 to 3.6 percent. Corporate tax policy is markedly more neutral toward investment decisions. Also, financial decisions are less distorted by the tax system, although discrimination against equity finance still exists. Similarly, the tax treatment of various assets remains somewhat uneven. One of the main reasons for nonneutralities is the absence of inflation adjustment of the tax base. As long as the tax system is based on nominal principles, perfect neutrality is not likely to be achieved.[26]

During 1991–93, no changes occurred in the corporate tax system, but, in 1994, the corporate tax rate was lowered to 28 percent, and the tax equalization reserve was replaced by a new profit-based system. These changes are reflected in an increase in the average METR at the corporate level from 3.6 to 11.6 percent. Abolishing the tax equalization reserve has several other effects. Since equity capital no longer constituted the base for tax credits, the effective tax rate on new equity capital increased. At the same time, investments in buildings and inventories were disfavored by this change and the dispersion in METRs with respect to corporate taxation increased.[27] Another change working to increase the dispersion of rates was that in the double taxation of equity capital. This is treated in the next section.

3.4.2 Marginal Effective Tax Rates and Ownership

As noted earlier, the 1994 reform was intended to move the mitigation of economic double taxation of corporate profits from the corporate level to the household level. This change was effectuated by abolishing the Annell deduction and reducing the tax rate on dividends to zero and the rate on capital gains to 12.5 percent. The main reason for this change was harmonization with the tax systems of the EC countries.

Table 3.13 and figure 3.9 compare the METRs for different investors and different forms of finance between 1980 and 1995. Unlike the figures discussed earlier in this section, these calculations consider taxes at both the corporate and the investor levels.

Two major observations should be stressed; the first regards the disfavoring

26. This is due to the fact that inflation increases taxation of low risk assets more than that of high-risk assets, at least if the risk premium is not perfectly correlated to inflation (see Norrman 1995b).

27. This occurs because the possibility to get untaxed reserves by using the tax equalization reserve decreased as the investment depreciated. Since machinery depreciates more rapidly than buildings and inventories do not depreciate at all, investments in inventories were favored within the *old system* compared to machinery and buildings in this respect.

Table 3.13 **Aggregate Marginal Effective Tax Rates on Corporate Income (real interest rate = 3 percent; inflation = 4 percent; risk premia: on loans = 2 percent; on shares = 7 percent)**

	1980	1985	1990	1991	1992	1993	1994	1995
Investor level:								
Debt finance:								
Households	75.7	88.2	84.2	49.1	46.2	46.2	48.0	41.1
Foreign investors	(−176)	−73.4	−79.5	−41.5	−41.5	−41.5	−36.8	−54.9
Pension fund	(−176)	−73.4	−79.5	−16.0	−16.0	−16.0	−19.6	−13.1
Life insurance fund	(−85)	−15.6	−19.7	34.9	22.2	22.2	1.5	20.4
Retained profits:								
Households	64.0	57.9	58.5	41.4	38.0	37.8	36.6	43.3
Foreign investor	28.1	35.9	37.4	18.5	18.5	18.5	25.9	21.4
Pension fund	28.1	35.9	37.4	24.3	24.3	24.3	27.8	30.3
Life insurance fund	33.6	42.0	44.4	39.0	34.8	34.8	29.8	51.4
New share issues:								
Households	86.9	82.3	82.3	45.7	45.4	45.2	29.2	56.2
Foreign investor	29.2	36.8	37.8	22.8	22.8	22.8	40.7	37.2
Pension fund	9.4	20.3	21.6	16.2	16.2	16.2	30.0	38.2
Life insurance fund	29.7	38.6	39.5	43.5	36.6	36.6	33.4	51.4

Source: Norrman (1995b).

of direct finance by domestic households, which may be a basic explanation for the situation depicted in figure 3.1 above. The second is the effect of the 1991–94 reforms mitigating this phenomenon.

In 1985, foreign investors were given a net subsidy of 73 percent, while domestic households, on average, were paying an 88 percent tax in the case of debt finance.[28] The major causes behind the latter number are the overstatement of taxable profits resulting from inflation and the wealth tax. As a result of the reform of capital income taxation in 1991, debt finance by households became more favorable than before, but the first best choice for households was still to buy shares in companies that retained profits, although the difference between debt financing and equity financing became a lot smaller.

An interesting fact is the reversed tax situation between domestic households and other investors in 1994. Before 1994, households were disfavored by the tax system as owners of Swedish shares (although the extremely high tax rates on debt finance still made ownership the best choice for the average household that wanted to invest in corporations). In 1994, the elimination of dividend taxation had a substantial effect on the incentives to own Swedish firms compared to earlier years.

These numbers must, however, be interpreted with great care since the tax situation of foreigners in their home countries is not considered. Another reason for circumspection is the use of average tax rates. There is strong evidence

28. The tax wedge abroad at the investor level is not considered in the calculations, but the Swedish coupon tax on dividends is.

for the existence of clientele effects, that is, comparative advantages in the different forms of finance (Agell and Edin 1988). If these are important, the use of average tax rates may be highly misleading. For example, corporate debt may, in practice, be held by pension funds and households with low marginal tax rates on current capital income (eventually zero), while high-income earners keep corporate shares in order to generate low-taxed capital gains. Such behavior would be consistent with both the incentives disclosed in table 3.13 and our discussion of empirical evidence in section 3.3 above.

It is also noteworthy that different investors may have had different views on the distribution of corporate profits. With the exception of 1994, the average household would prefer retained profits to dividends. At the same time, pension funds should have been more concerned about dividends than capital gains. Foreign investors and life insurance funds were probably more or less indifferent to dividends before 1994 but would now prefer capital gains rather than dividends.

As mentioned, the numbers in table 3.13 are based on averages. In practice, no one actually makes decisions based on average tax rates. This brings about the question of the dispersion in tax rates. The rational behavior of investors is to seek the cheapest way to finance a specific project. In order to illustrate the issue, the variation in the METRs related to table 3.13 is given in table 3.14.

It is clear that the difference in taxation of different investors and investments historically has been very large. At the same time, it is obvious that the dispersion is decreasing, implying fewer tax-induced distortions in the resource allocation after the 1991–94 reforms.

3.4.3 Extending the Portfolio Choice

The analysis above concentrated on financial decisions related to corporate investment. In this section, we focus on household taxation and take a broader view of portfolio choice by comparing additional savings possibilities. Therefore, the investigation is extended to include investments in owner-occupied housing and government bonds.

The approach is to calculate the METRs given that the real rate of return to a risk-free security is 3 percent before taxes. This may be conceived as an assumption of an exogenous world market real rate of interest to Sweden. For owner-occupied housing, the opportunity return is assumed to be an investment in a corporate bond. A risk premium of 2 percent is therefore added to the nominal return to government bonds. Pension funds and life insurance funds are assumed to invest primarily in noncorporate bonds. Like those reported earlier, these calculations are made assuming an inflation rate of 4 percent. Although the METRs of 1985–91 were higher owing to higher inflation rates, this approach is used in order to isolate the importance of the tax rules from the influence of inflation.

Table 3.15 gives the results of these calculations for 1985–95 for an individual with a medium level of income. As before, inflation causes the income

Table 3.14 **Percentage Variation in Aggregate Marginal Effective Tax Rates on Corporate Income (real interest rate = 3 percent; inflation = 4 percent; risk premia: on loans = 2 percent; on shares = 7 percent)**

	1985		1990		1991		1992		1993		1994		1995	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Corporate level:														
Type of finance:														
Debt	−79	−47	−86	−48	−51	−11	−51	−11	−51	−11	−45	−10	−75	−11
Retained profits	30	42	5	7	14	20	14	20	14	20	20	33	17	35
New share issues	13	27	2	4	−5	5	−5	5	−5	5	21	33	1	24
Type of investment:														
Machinery	−79	30	−2	5	−51	20	−51	20	−51	20	−45	21	−51	21
Buildings	−78	38	−2	6	−46	19	−46	19	−46	19	−41	27	−75	1
Inventories	−47	42	−2	8	−11	14	−11	14	−11	14	−10	33	−11	35
Investor:														
Households	55	90	55	87	40	60	37	58	37	58	24	58	34	58
Foreign investor	−79	42	−86	44	−51	26	−51	26	−51	26	−45	46	−75	38
Pension fund	−79	42	−86	48	−24	26	−24	26	−24	26	−27	37	−28	43
Life insurance fund	−19	48	−5	69	6	61	−17	39	−17	39	−5	40	10	60

Source: Norrman (1995b).

Table 3.15 **Marginal Effective Tax Rates on Different Types of Capital Income for Medium Income Earner (real interest rate = 3 percent; inflation = 4 percent; risk premia: on corporate bonds and owner-occupied housing on shares = 7 percent)**

Type of Security	1985	1990	1991	1992	1993	1994	1995
Current income:							
Dividends	82.3	82.3	45.7	45.4	45.2	29.2	56.2
Corporate bonds	88.2	84.2	49.0	46.2	46.2	48.0	41.1
Government bonds	126.0	122.7	86.7	85.0	83.3	83.3	83.3
Consumer durables	.0	.0	.0	.0	.0	.0	.0
Interest deductions[a]	−90.0	−72.0	−54.0	−54.0	−54.0	−54.0	−54.0
Noncurrent income:							
Pension claims	.0	.0	21.9	21.9	21.9	21.9	35.0
Life insurance claims	24.5	24.5	53.7	44.8	44.8	46.7	63.0
Capital gains on corporate shares (10 years)	57.9	58.5	41.4	38.0	37.8	36.6	43.3
Owner occupied housing:							
15 years ownership, 100 percent equity financed	128.9	42.3	43.2	42.1	41.0	35.7	35.7

Source: Norrman (1995c).

[a]Rate of interest 9 percent.

from assets fixed in nominal terms to be overstated. Actually, the influence of inflation more than doubles the value of the METRs compared to the statutory tax rates in most cases if we use actual inflation rates (see Norrman 1995c). It should also be noted that, while totally equity-financed owner-occupied housing faced a positive tax rate, the possibility of mortgage financing as well as the presence of subsidies to newly constructed homes often imply a negative tax rate on home ownership.

Developments from 1985 to 1995 are extraordinary. If we ignore consumer durables, the range of METRs has shrunk dramatically, from 0–129 percent to 35–83 percent. Even though the numbers reported in the table must be interpreted with care—the variation in tax position between individuals was considerably greater before 1991 than after, when it comes to capital income taxation—a firm conclusion must be that the new capital income taxation in 1991 increased neutrality substantially but also that the changes in 1995 will work in the opposite direction.

In this section, we have pointed out the wide dispersion in the METRs during the last decade. This fact has of course been revealed from time to time by different investigations, and it is obvious that these observations have exerted a major influence on the development of the tax system. A fundamental question is to what extent other pressures have been in force when the reforms of the 1980s and 1990s have been enacted. One of these is international pressure on tax coordination operating because of the openness of the Swedish economy.

3.5 International Pressures behind the Reforms

3.5.1 Worldwide Tax Reforms

During the 1980s, a wave of tax reform swept the world.[29] Although details differ, sometimes substantially, from country to country, it is reasonable to say that key common features predominate. In particular, in many countries tax reform combined reductions in statutory tax rates with base broadening, including especially the curtailment of investment incentives. Tax reform in Sweden fits squarely within this worldwide movement toward imposition of income taxes characterized by broader bases and lower rates.

There may be a tendency, especially in the United States, to think that the U.S. Tax Reform Act of 1986 stimulated tax reform elsewhere and that, without the 1986 act, the decade of tax reform would not have occurred. While this view has some legitimacy, it is easily overstated. It is doubtless true that the breathtaking American tax reform captured the attention of the world tax policy community, gave tax reform increased legitimacy, and perhaps acted as a catalyst for action in many countries. But this is hardly enough to explain world tax reform; after all, the world does not follow all the policy initiatives of the United States, even the bold ones.[30] It is also true that some countries reacted defensively to tax reform in the United States, especially the deep reductions in tax rates.[31] Again, this may have been an important contributing factor, but it is probably not enough, by itself, to explain the phenomenon at hand in Sweden.

There are other potential explanations for the unusual phenomenon of worldwide tax reform: common intellectual underpinnings and domestic recognition of the need for tax reform, based on analysis of local conditions. This explanation seems especially important in the case of Sweden. After all, the Swedish debate on tax reform predated the U.S. Tax Reform Act of 1986 and even the proposals for tax reform that the U.S. Treasury Department submitted to President Ronald Reagan in late 1984. Underlying the public debate in Sweden was economic analysis of the effects of the taxation of capital that was every bit as sophisticated as any being done anywhere in the world. Particularly noteworthy is the fact that Sweden was one of the countries included in the

29. On this, see Pechman (1988), Tanzi (1987), OECD (1990), Whalley (1990), and the papers in Boskin and McLure (1990).

30. Moreover, it is important to note that the prior tax reform in the United Kingdom played an important role in convincing American policymakers that the combination of rate reduction and elimination of investment incentives was not unreasonable. See McLure (1992, 102) and, for a discussion that is less generous to Nigel Lawson, chancellor of the Exchequer of the United Kingdom, Dilnot and Kay (1990, 154–55).

31. Canada, with its close economic ties to the United States, is the best example of this. The Canadian tax reform debate, which had been stalled, assumed new urgency when the United States slashed its corporate income tax rates. There was real and justified fear that American firms would organize their affairs to place debt in Canada (to benefit from deductions against high rates) and income in the United States (where it would be taxed at low rates). See Whalley (1990).

influential and pathbreaking NBER study of marginal effective tax rates that helped identify and quantify the distortions caused by uneven taxation (King and Fullerton 1984).

Thus, Södersten (1991, 4) seems correct when he writes, "The U.S. Tax Reform Act of 1986 and its international followers are the obvious sources of inspiration for this reform, but it also has its roots in the . . . reorientation of Swedish tax policy debate that started already in the beginning of the 1980's." Whalley (1990) reaches a similar conclusion. He writes, "These reforms . . . have taken place over a long period of time and clearly predate recent U.S. changes. Reform can be dated to 1981, to the so-called 'wonderful night' agreement between the Centre Party, the Liberals and the Social Democrats." He goes on to note, "The striking feature of these reforms is both the length of the period over which change was underway, and the sweeping nature of the changes now planned for 1991. Much of the reform seems largely independent of U.S. changes" (p. 299).

3.5.2 Response to International Pressures

There is little doubt that Sweden was responding in part to international pressures (not just "following the crowd" or responding to common intellectual developments) when it reformed its tax system. These pressures took several forms.

Tax Rates

If reductions of tax rates in other countries were not matched, Sweden would have been left vulnerable in several respects. First, Sweden would have had difficulty competing with low-rate countries for investment from countries that exempt foreign-source income. Moreover, after the U.S. Tax Reform Act of 1986, many U.S. firms would have viewed the high Swedish rates much like a firm from a country that exempts foreign-source income. This is true because the 1986 act placed many more American firms in an excess credit position; such firms actually pay foreign taxes, instead of automatically crediting them against their U.S. tax liability.

Second, firms operating in both Sweden and low-rate countries would have the incentive and the opportunity to manipulate financial and accounting practices to minimize taxes. They could be expected to borrow in Sweden to take advantage of its higher-value deductions for interest. They might also manipulate transfer prices to shift income to low-tax jurisdictions. Such adjustments could cost the Swedish Fisc large amounts of revenue.

Mitigation of Corporate Double Taxation

Despite having long had the Annell deduction for dividends paid on new issues of stock, Sweden was noticeably out of step, especially in Europe, in its treatment of dividends; it had no generally applicable system of relief for double taxation of dividends. Rather than adopting the imputation system,

which is standard throughout Europe, or the split-rate system (which is also used in Germany), Sweden chose the rather unusual technique of exempting dividends from taxation at the shareholder level.[32]

This choice has several clear advantages. It is simpler than the imputation method, which requires the shareholder to include grossed-up dividends in taxable income and then take credit for corporate tax deemed to be withheld against tax on those dividends. The imputation method is commonly chosen over exemption for two reasons: it takes account of the graduated individual income tax on shareholders, and its benefits can easily be withheld from foreigners. (Indeed, it is rather complicated to extend the imputation credit to foreigners; since they have no tax liability in the country where dividends are paid, it is necessary to make refunds to them.) But the first of these advantages does not exist if, as in Sweden, dividends are taxed at a flat rate. The second feature, discrimination against foreign investors, can be interpreted as a disadvantage, rather than an advantage, whether one takes a unilateral (Swedish) or multilateral view of the matter.

EC and Ruding: The Wild Cards

Potential membership in the European Community (EC) added another dimension to the question of foreign influence on Swedish tax policy. In February 1992, a committee of independent experts headed by Onno Ruding of the Netherlands submitted a report on company taxation to the Commission of the EC (Commission of the European Communities 1992 [hereafter referred to as the Ruding Report]). The Ruding committee dealt with several issues that are of relevance to the current discussion. While its recommendations, if adopted, would not pose serious impediments to Swedish membership in the EC, the Ruding Report will almost certainly be considered in any future Swedish debates on corporate tax policy.

To prevent what it calls destructive tax competition, the Ruding Report proposed a minimum corporate tax rate of 30 percent. The Swedish rate of 28 percent adopted in 1994 falls below the proposed floor.

The Ruding Committee did not make any recommendations on the proper relation between corporate and individual income taxes, leaving this matter for later resolution. It is thus difficult to know how Sweden's newly adopted policy of exempting dividends would fare if judged by EC standards.

In one of its less satisfactory conclusions, the Ruding Report condoned the use of investment incentives to encourage investment, provided that they are "nondiscriminatory"; unfortunately, it failed to define *nondiscrimination* in this context. It favored investment credits over rate reductions and incentives built into the measurement of taxable income because they are more cost effective than the former and more transparent than the latter. The committee pro-

32. It might be noted that, in its 1986 reform, Colombia adopted this approach because of its simplicity.

posed safeguards on the use of incentives: authorization of the Commission of the EC, no incentives for financial activities, and "sunset" provisions. Enactment of these recommendations presumably would not have precluded the elimination of investment incentives, but it might preclude their reinstatement.

3.6 Evaluation

There can be no doubt that the Swedish income tax is vastly better now than it was in 1980. Statutory rates are much lower, and marginal effective tax rates fall in a much narrower range. As shown in figures 3.10 and 3.11, the overall tax burden is still among the highest in the world and is still basically financed by taxes on labor. The new system is simpler, more neutral, and more equitable horizontally. And, given the extent to which the previous system provided both opportunities and incentives for evasion, it is probably not much less progressive when burdens are compared to incomes across income groups.[33]

Before the reforms, revenues from heavy taxes on labor income, including mandated contributions to social insurance programs, were being used to fill the gap left by relatively light taxation of income from capital. As other papers demonstrate, the heavy taxation of labor income has had enormous cost.

The undertaxation of income from capital occurred, despite high marginal tax rates, because of extremely generous treatment of certain types of investment. The tax treatment of capital was extremely distortionary, as shown by the range of METRs applicable to various types of assets and to various means of financing. Moreover, the ability of some taxpayers to convert labor income to capital income or to offset it with deductions for interest expense undermined the revenue potential and fairness of labor taxation. What little progressivity there appeared to be was largely a matter of redistribution across age groups; within particular age cohorts, there was very little progressivity.

The reforms eliminated many of the anomalous features of the Swedish system, lowered statutory rates, and brought marginal effective tax rates closer together. In addition to reducing disincentives for market labor, these reforms should lead to a more rational allocation of the nation's capital. The fairness of the system, as well as the appearance of fairness, should improve markedly.

Although the two systems reached their 1985 status by somewhat different routes, the post-1985 reforms of the Swedish and U.S. systems bear some similarities. In both cases, deviations from the income tax model had created complexity, distortions, inequities, and disrespect for the law. In both cases, the

33. In comparing the present market-oriented tax system with its predecessor, which was based on social engineering and fine-tuning of the economy, one is reminded of the revolution in astronomy that resulted when the elegantly simple sun-centered Copernican system replaced the complex earth-centered Ptolemaic system of epicycles. That is high praise—and extreme criticism. Even if the analogy is overdrawn, the lesson is clear.

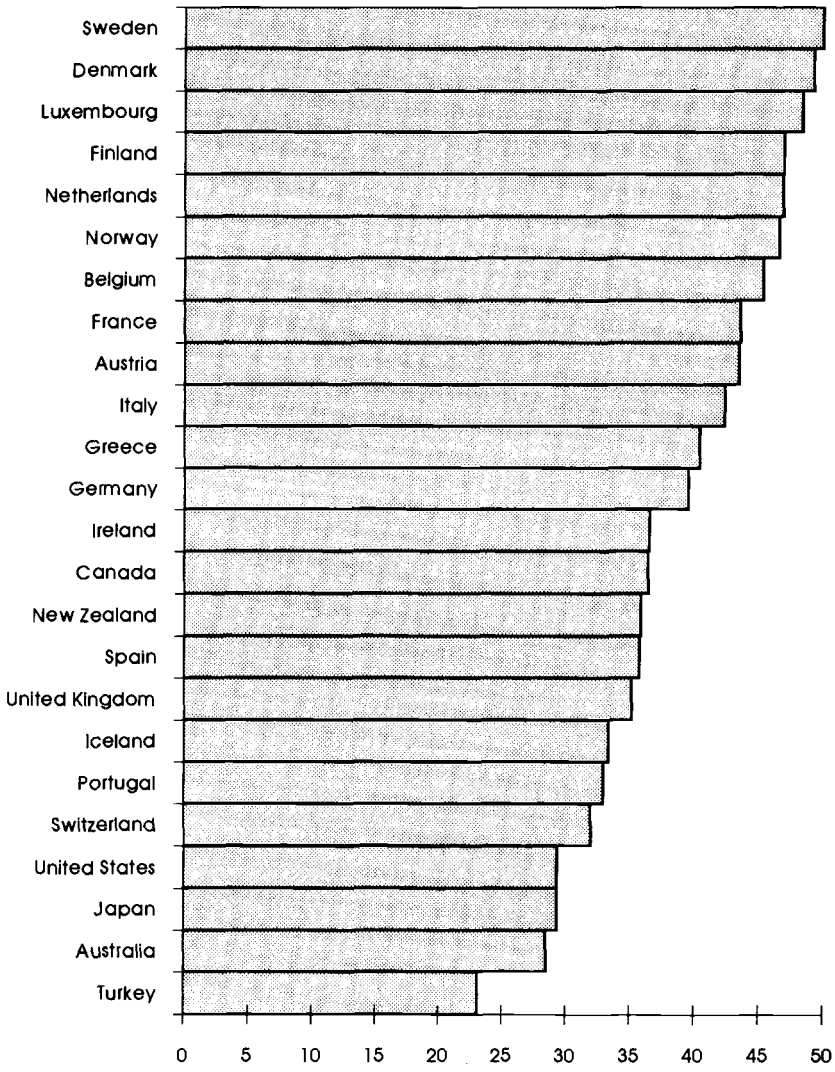

Fig. 3.10 Total tax revenue as percentage of GDP, 1992
Source: Revenue statistics of OECD member countries.

advantages of debt finance, especially in a time of relatively high inflation, had not gone unnoticed. Tax shelters of various types, including owner-occupied housing as well as business deals of questionable economic merit, were undermining the integrity of the system and the productivity of both economies. In both cases, bold initiatives involving a return to the principles underlying the income tax model substantially reduced the problems identified.

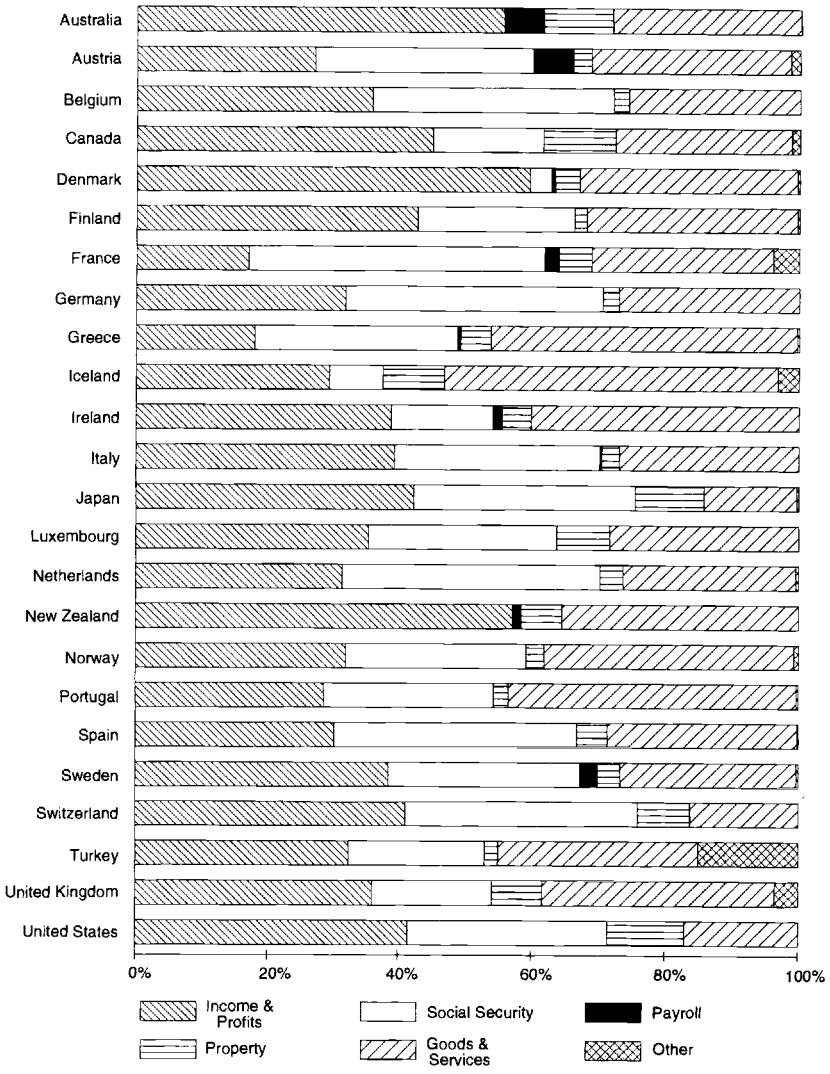

Fig. 3.11 Revenues from different taxes as percentage of total taxation
Source: Revenue statistics of OECD member countries.

However, even though the Swedish tax system has become more equitable and more neutral, taxes in Sweden remain among the highest in the Western world and therefore continue to affect almost every economic decision that households and firms make. This final problem can be addressed successfully only by reducing the overall level of taxation and thus the level of public spending.

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