

Unclassified

ECO/WKP(99)14



Organisation de Coopération et de Développement Economiques
Organisation for Economic Co-operation and Development

OLIS : 13-Aug-1999
Dist. : 23-Aug-1999

PARIS

ECONOMICS DEPARTMENT

English text only

Unclassified
ECO/WKP(99)14

TAX REFORM IN SWITZERLAND

ECONOMICS DEPARTMENT WORKING PAPERS NO. 222

by
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ABSTRACT/RÉSUMÉ

There have been a number of tax reforms in Switzerland in recent years aimed at enhancing economic efficiency and equity. This paper sets these reforms in the context of the forces shaping tax policy in Switzerland and the main features of the Swiss tax system and suggests areas where further reforms could be beneficial. These include applying more equal tax treatment to different forms of savings, moving to a flat-rate tax on corporate profits in all cantons and making greater use of environmental taxes. It is recognised that Switzerland's highly decentralised federal structure and system of direct democracy can slow reforms, although these features also increase the legitimacy of reforms, reducing the risk of policy reversals.

JEL classification: H2

Keywords: taxation; Switzerland

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Ces dernières années, un certain nombre de réformes fiscales ont été mises en place en Suisse afin d'améliorer l'efficacité économique et l'équité. Cet article replace ces réformes et les facteurs qui les déterminent dans le cadre de la politique fiscale de la Suisse. Il suggère des domaines où de nouvelles réformes pourraient être bénéfiques. Parmi celles-ci on peut citer l'application d'un traitement fiscal plus égalitaire des différentes formes d'épargne, l'adoption d'un système de taux d'imposition à taux fixe sur les bénéfices des sociétés dans tous les cantons et en ayant davantage recours aux taxes environnementales. Il est reconnu que la structure fédérale très décentralisée de la Suisse et son système de démocratie directe peuvent ralentir les réformes. Néanmoins ces dispositifs peuvent aussi accroître leur légitimité réduisant ainsi les risques d'éventuels retours en arrière.

Classification : JEL: H2

Mots-clés : fiscalité; Suisse

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TAX REFORM IN SWITZERLAND

by

David Carey, Kathryn Gordon and Philippe Thalmann¹

1. Switzerland's tax system has evolved in the context of a highly decentralised federal structure with extensive use of direct democracy. These features have reduced the scope for governments to provide services that are not valued by taxpayers. As a share of GDP, total tax revenue is moderate by OECD standards and low compared with most EU countries. However, these features of Switzerland's federal structure have also hampered tax reform, as this tends to redistribute revenues amongst governments. In addition, even when governments agree on reform, it can be difficult to obtain approval in a referendum. For example, the federal government first sought popular approval for the introduction of a VAT in 1977 but only gained approval in the fourth referendum held in 1995. These features, not the inherent qualities of the tax system, account for the fact that Switzerland was not amongst the OECD countries to implement comprehensive tax reforms in recent years.

2. An unusual feature of the Swiss Constitution is that the federal government's power to raise income taxes and VAT is time-limited. These taxes will expire by the end of 2006 unless authority to raise them is renewed in a referendum held before then. This provides an opportunity to reform the tax system. After outlining the forces shaping the tax system and its main features, this chapter discusses reforms that could reduce its economic costs (excess burden,² including administration and compliance costs) and/or enhance equity. Inevitably, the reforms proposed are conditioned by the decentralised federal structure that so shapes existing arrangements.

Forces shaping tax policy

A highly decentralised federal structure

3. The Swiss Confederation is more decentralised than any other OECD country.³ Under the Constitution that created the Swiss Confederation in 1848, cantons retain all responsibilities unless these

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2. Excess burden is the cost of taxation in excess of the revenue raised. Taxes generally impose costs greater than the revenue they raise because they distort economic choices, diverting resources from their most valued uses. Administration and compliance costs also contribute to excess burden.

3. According to some measures, federal arrangements in the United States are almost as decentralised as those in Switzerland, but effective base harmonisation is fairly complete in the US federation (though *de jure* States have the right to define their own bases). Switzerland uses "equalisation transfers" that effectively weaken base mobility, but these are relatively small in that country. They also have complete autonomy in setting rates. In this respect the systems are similar.

are explicitly ceded to the central government.⁴ Insofar as tax powers are concerned, they ceded the right to levy indirect taxes to the Confederation. But Swiss cantons have considerable autonomy in setting most types of direct tax. In addition, the cantons often allow municipalities to impose their own direct taxes by means of municipal surcharges on cantonal direct taxes. Reflecting this decentralisation, central government's share of total tax revenues (including social security) is the lowest in the OECD, only 27 per cent, and the share of state and local governments is exceeded only in Canada (Table 1). Decentralisation permeates the entire architecture of the Swiss tax system -- the design of tax statutes and structure, the way redistribution works, and measures relating to compliance and enforcement -- as will be discussed in the next section.

4. Swiss federal arrangements reflect a broad acceptance of the effects of tax competition among cantons. The Swiss authorities consider that the positive effects of inter-cantonal tax competition outweigh the negative effects from constraining cantons' choice of tax structure. As a result, mechanisms that are used to weaken or eliminate base mobility in other federations are either not found or are very weak in Switzerland. There is no rate harmonisation whatsoever and equalisation transfers are comparatively small (see below). With primary responsibility for income and wealth taxation assigned to lower levels of government, there are few institutional constraints to prevent large differentials in effective tax burdens from developing among cantons and, indeed, this has occurred. These differences are a stable feature of the Swiss Confederation, suggesting that the cantons have entered what might be called a "tax equilibrium" with relatively little pressure for changing relative tax rates. In the future, however, institutional, technological and social change -- by lowering the real and perceived costs of mobility -- may create tensions in this equilibrium.

5. With such small government units, spatial spillovers are important and, in particular, major cities have structural budget problems. These are, at least in part, due to not receiving adequate compensation for the services they provide which benefit citizens living beyond their boundaries. More generally, the fact that there are inevitably winners and losers amongst governments associated with almost any spending or tax initiative introduces some inertia into the federal tax reform process. For example, while introducing dividend imputation might be an option in some countries, companies and shareholders are not evenly distributed amongst the cantons, with the result that cantons with many shareholders and few corporate head offices would lose tax revenue.

6. Cantons remain fiercely independent, but recent trends show a slight movement toward re-centralisation. The Confederation has been granted more and more reserved tax bases and the recent law on the harmonisation of definitions of direct tax bases (described below) has also considerably reduced the tax sovereignty of the cantons. As tax policy evolves in response to various pressures, the challenge for Switzerland will be to find arrangements that allow the Swiss people to express their political will for a decentralised state, while simultaneously reducing the administrative and economic costs that such a state may entail.

4. In this respect, the Swiss confederation is often mentioned as a good empirical model for understanding how fiscal relations are likely to evolve in the European Union. See Kirchgässner and Pommerehne (1996) for a discussion of this issue.

The tradition of direct democracy

7. The tradition of direct democracy is also an essential element in the political economy of public finance in Switzerland. Switzerland offers the most extensive example of a functioning direct democracy in the OECD area. Anyone can initiate a change in the federal Constitution (a new article or the modification or elimination of an existing article) by gathering 100 000 signatures within 18 months from citizens who have the right to vote.⁵ When Parliament initiates changes to the Constitution or urgency laws that run counter to the Constitution, voter approval must be obtained through a referendum. Other changes to federal law are subject to optional referendum. These are held if someone gathers 50 000 signatures within 100 days of publication of the changes in the law. Increases in the rates of VAT and Federal Direct Tax are subject to compulsory referendum. During the 1990s, there has been an average of about three referenda per year. Several items are generally submitted to voter scrutiny during each referendum and these often bear directly or indirectly on government finances, spending and public management.⁶

8. This feature has a direct bearing on the political economy of government finances in Switzerland. Direct democracy means that electoral control of the fiscal process is effective and lowers “principal-agent” problems that can arise in the context of representative democracies. This should mean that demand-based factors are more important determinants of public expenditure than in representative democracies and that supply-based factors (as emphasised in the theory of public choice) are less important. A recent study (Kirchgässner and Pommerehne, 1997) confirms that a demand-based model of public expenditure performs much better for Switzerland than for Germany, a country with a similar federal- and economic structure except that it is a representative democracy.

9. By constraining the overall tax burden, these features may also ease problems of tax enforcement. In Switzerland, the moderate overall tax burden has meant relatively low marginal tax rates. As such rates are the most important determinant of tax evasion in Switzerland (Weck-Hannemann and Pommerehne, 1989), as in other countries, this limits the incentive to evade. These arrangements may also reduce evasion by lifting “tax morale”. Studies of tax enforcement emphasise the fact that, at least for some tax bases, the importance of “voluntary compliance” is large and probably growing (see Slemrod, 1995). If direct democracy in Switzerland succeeds in raising the legitimacy of government spending and taxes, then this could be a positive force to limit evasion – citizens are made more responsible, having participated directly in expenditure decisions. This is reinforced by arrangements that keep expenditures and taxes at the same level of government and at the lowest possible level of government -- the aim is that citizens voting expenditures should also have to pay for them.

Pressures on government expenditure

10. Government expenditure in Switzerland (34 per cent of GDP in 1996) is below the OECD (weighted) average (38 per cent of GDP) and far below the EU (weighted) average (45 per cent of GDP). It has been growing broadly in line with the EU and OECD averages since the early 1980s. As in most other countries, this growth is mainly attributable to increases in social spending (Table 2). In Switzerland, most of this growth over the 1985-95 period occurred in health care and unemployment programmes. The rise in the share of health care spending in GDP was particularly strong.

5. The initiative either sets out the wording of the proposed change in the Constitution or the principle of the proposed modification, in which case Parliament modifies the Constitution. If the initiative is approved in a referendum, consequent changes in the relevant law(s) must also be made.

6. The following is a selection of issues submitted to votes in 1997 and 1998: a federal law concerning the realisation and finance of public transport infrastructure; a law concerning a charge for heavy trucks use of the road system; a popular initiative for a revision of the “AVS” without raising the retirement age; a federal law containing measures to balance the budget; a federal law on unemployment insurance.

11. A factor that contributes to moderate levels of government expenditure in Switzerland is that the unemployment rate (it had fallen to 3 per cent by early 1999) is one of the lowest in the OECD. Another factor is that the (dominant) second pillar of retirement income, the earnings-related component, is funded. Having a funded second-pillar that is more actuarially fair (indeed, defined contribution schemes are totally actuarially fair) than typical pay-as-you-go systems means that contributions are more like savings than taxes. (This is one of the reasons why even compulsory contributions to funded private schemes are not classified as social security taxes in either OECD *Revenue Statistics* or the System of National Accounts.) This allows financial preparations for old age to be made in a way that avoids needlessly incurring the tax distortions that stem from using the general tax system for this purpose.⁷ This feature also reduces some of the problems in the political economy of social security that other countries have encountered (*i.e.* it is politically attractive to expand social security promises, especially if future taxpayers will be paying for them). As discussed below, however, tax expenditures on savings channelled through pension programmes are very large indeed, which poses other issues for tax design. Nevertheless, the private funding of the second pillar of retirement income takes much of the pressure off public finances.

12. Looking further ahead, private funding of the second pillar of retirement income will also reduce the pressure on public finances from population ageing. Switzerland's elderly dependency ratio,⁸ which is presently around the OECD average, is projected to more than double by 2030, a somewhat larger increase than the average for the OECD (Figure 1). A similar increase in the population aged 65 or over as a proportion of total employment is also projected, taking this proportion to almost 60 per cent in 2030, slightly more than the OECD average. In other words, the number of people working per person aged 65 or over is projected to decline from 3.5 today to 1.7 by 2030. Despite these unfavourable demographic trends, the associated fiscal pressures are expected to be less intense than in most other OECD countries because the (dominant) second pillar of retirement income is funded.

Deepening globalisation and Switzerland's role in European economic integration

13. Increasing international integration poses challenges for the tax systems of many countries, including Switzerland. Switzerland enjoys a major advantage in that its tax burden is moderate by OECD standards and low compared with most other European countries (see below). Reflecting this and other Swiss advantages, many multinationals have their headquarters or European headquarters in Switzerland. Deepening European economic integration also influences the development of the Swiss tax system. Such integration gives rise to tensions between high and low tax countries and brings into relief various problems of "fit" between domestic tax regimes. Switzerland, though neither a member of the EU nor of the European Economic Area, is also affected by these issues because of its close links with the EU economy.

14. Another force acting on Swiss tax policy stems from the possibility that it might eventually join the EU. Switzerland has already taken some steps to ensure that it can make the required modifications to its tax system should it become necessary. Various tax reforms have been made with a view to enhancing Switzerland's compatibility with EU arrangements. This was one of the considerations in introducing and then increasing the VAT (which, with the major exception of rates, is largely compatible with EU

7. Nevertheless, the Swiss use of compulsory private insurance probably involves some regulatory excess burden.

8. Defined as population aged 65 and over as a per cent of the total working-age population.

directives). But a number of other modifications to Switzerland's tax system would be required for full compatibility.⁹

15. Switzerland's tax rates and in some cases, cantonal practices frequently draw attention from tax authorities in other OECD countries. The importance of its private banking sector and long tradition of bank secrecy, combined with other factors described below, raise the risk of non-resident tax evasion. Moreover, two cantonal tax regimes in the area of company taxation make certain cantons an attractive place to locate certain companies, the functions of which are predominantly performed abroad.

International economic co-operation

16. International economic co-operation also shapes Member country tax policies. OECD efforts in this area have been extensive. The Organisation's approach to this issue recognises that there are both costs and benefits from tax competition, but also emphasises the need to improve the effectiveness of international tax administration and to strengthen the ability of OECD tax systems to adapt to emerging technological and market developments. To this end, the OECD Model Tax Convention on Income and Capital represents an attempt to improve tax co-ordination among member governments. The OECD Model and its Commentary provide a uniform basis for settling the most common problems that arise in the field of international tax treaties. In addition, the OECD has issued guidelines on "harmful" tax practices OECD (1998b)¹⁰. Switzerland abstained from these guidelines¹¹. The OECD is also working on related projects involving enhancing the taxation of cross-border interest flows and access to bank information for tax purposes.

Main features of the system

Level and structure of taxation

17. Total tax revenues (including social security contributions)¹² have increased as a share of GDP in Switzerland since the early 1980s at a broadly similar rate to that in most other OECD countries (Table 3). This increase mostly has been in social security contributions, reflecting historically high levels of unemployment in the 1990s and the growing costs of medical insurance (Table 4). While rising social security contributions have also been an important factor in the increase in taxation in other countries, those countries also tended to increase consumption taxes significantly. Despite the large increase in

9. These include: elimination of the withholding tax on dividends paid by a subsidiary to its parent company; other modifications to the system of collecting the current withholding tax regime; integration of the clause regarding co-operation among EU tax authorities.

10. The report is intended to develop a better understanding of how tax havens and harmful preferential tax regimes, collectively referred to as harmful tax practices, affect the location of financial and other service activities, erode the tax bases of other countries, distort trade and investment patterns and undermine the fairness, neutrality and broad social acceptance of tax systems generally. Such harmful tax competition diminishes global welfare and undermines taxpayer confidence in the integrity of tax systems (OECD 1998b, paragraph 4).

11. The reasons for this abstention are set out in OECD (1998b), pp. 76-78.

12. The social security data are as reported in *OECD Revenue Statistics*. This includes all health insurance premiums, even though it is difficult to see why the voluntary part of health insurance premiums to private funds should be considered as social security contributions. This treatment, which is not consistently applied to other countries (including the United States) tends to overstate social security contributions in Switzerland by international comparison. The social security data (correctly) do not include contributions to pension funds.

taxation in Switzerland, the tax ratio (33 per cent of GDP in 1996, excluding voluntary private health insurance premiums) remains significantly below the OECD average (37 per cent of GDP) and far below the EU average (42 per cent of GDP). As noted above, a factor contributing to the moderate level of taxation in Switzerland, especially compared with EU countries, is that the earnings related (*i.e.* second pillar) part of the pension system is privately funded. Such contributions amounted to 7.3 per cent of GDP in 1996.

18. By international comparison, the share of consumption taxes in total taxation is low in Switzerland and the shares of individual income tax and social security contributions are high (despite the fact that the second pillar of the retirement income system is not included in social security) (Table 5). Corporate taxes represent a somewhat smaller share of tax revenues than in most other countries but property and wealth taxes (which both individuals and corporations pay) are higher.

Main taxes by level of government

19. The Constitution gives the federal government the exclusive right to raise a general consumption tax, customs duties, a withholding tax on capital income, and stamp duties. The federal government shares with lower levels of government the right to levy taxes on personal income and on firms' profits and net worth. Municipal taxes are generally levied as a surcharge on cantons' taxes.¹³

20. Approximately one half of the federal government's tax revenues are derived from consumption taxes, with VAT being by far the most important such tax (Table 6). Income tax is the next most important revenue source, accounting for about one quarter of Federal revenue. The cantons and municipalities derive most of their revenue from income taxes. These account for three quarters of cantons' revenues and a somewhat higher proportion of municipalities' revenues. Most of the remainder of cantons' and municipalities' tax revenues comes from taxes on personal wealth and on corporate net worth.

21. Taking all three levels of government together, the personal income tax (PIT) accounts for almost half of all tax revenues (excluding social security contributions), far more than any other tax. The cantons and municipalities raise most of this revenue. The next largest category of tax is on consumption, contributing almost one quarter of tax receipts. The remainder of taxation comes roughly equally from taxes on personal property and wealth and on corporations.

The main taxes

Personal income tax

22. The personal income tax (PIT) base includes all world-wide income from paid activity, income in kind, income from wealth and income from social security and pensions. Income in kind includes not only prerequisites, such as company cars, but also imputed rentals from owner-occupied homes. Capital gains on financial wealth are not taxed, unless they relate to a business activity. However, under the federal law on tax harmonisation, capital gains on real estate (including the principal residence) are taxed in all cantons, albeit at rates which are inversely related to the holding period. There are no dividend imputation credits to counter the double taxation of dividends paid to individuals. All interest expenses are deductible.

23. Tax exempt thresholds (allowing for personal exemptions, standard deductions and zero-rate brackets) tend to be high. Taking all three levels of government together, average marginal rates for a

13. Each canton sets its basic tax rates in law. Most apply a coefficient to these rates to determine the current rates. Municipalities apply their own coefficients to the basic rates.

single taxpayer range from 22 per cent at an annual income of SF 50 000 to 38 per cent at SF 200 000 (Table 7). There is a wide distribution of rates around these averages.

Taxes on personal property and wealth

24. The cantons and municipalities (but not the federal government) levy net wealth taxes. Net wealth includes world-wide assets, less real estate located outside the taxing government's territory, less debt. The law on the harmonisation of direct taxation (see below) sets out harmonised rules for determining the tax base as well as for the continued levying of this tax by cantons and municipalities. Wealth is assessed at its current resale value (for one or two years).¹⁴ Tax schedules are progressive in all but three cantons, which apply proportional rates.¹⁵ Tax rates never exceed 1 per cent of net wealth.¹⁶

Corporate taxes

25. The main taxes levied on corporations are the corporate income tax (CIT) and the net worth tax. The CIT accounts for about 75 per cent of corporate tax revenue. In calculating taxable income, corporations may deduct all expenses incurred in earning that income, including depreciation charges that conform to normal business practice.¹⁷ Dividends received, and to a large extent, capital gains from holdings in other corporations are exempt from the profits tax. There is no group taxation on a consolidated basis. Under the exemption method, income from a foreign permanent establishment or from foreign immovable property is tax exempt in Switzerland. The net worth tax applies to the book value of net equity (*i.e.* including retained earnings).

26. An unusual feature of the CIT in about two-thirds of cantons is that rates are a progressive function of rate of return. This is calculated as profits divided by net worth. Thus, the CIT and the net worth tax are closely related. The net worth tax reduces the progressiveness of the CIT when profits are positive. The federal government also had a progressive rate CIT and a net worth tax before its business tax reforms came into effect in January 1998. Since then, the federal CIT rate has been 8.5 per cent and there has been no federal tax on net worth. Taking all three levels of government together, the (simple) average CIT rate across cantons (based on municipal rates in the capital of each canton) ranges from 13 per cent to 30 per cent.¹⁸ Allowing for the net worth tax, average rates range from 23 per cent to 35 per cent. These rates are low by international comparison,¹⁹ although there are OECD countries with lower rates.

14. This is so even for financial assets that are rarely or never traded; their value is estimated nation-wide every year.

15. In two cantons, the communes do not apply a coefficient to the canton tax, as in the other cantons, but have their own schedules.

16. In addition to exhaustive wealth taxation, two cantons and the communes in a dozen cantons levy a tax on real-estate property. Debt is generally not deductible and tax rates are proportional.

17. All direct taxes paid to the Confederation, cantons and the municipalities on income and net worth are also deductible in the year in which they are paid.

18. Tax rates may be higher than this in the sixteen cantons that apply a minimum income tax to corporations that realise little profit compared to their economic importance. This tax is a fixed amount in some of those cantons. In the other cantons, the minimum tax is based on different indicators of economic importance, such as sales, capital or real-estate property.

19. Other special corporate arrangements also apply for particular types of company. Public enterprises are exempt from CIT and net worth taxes. Income from holdings in other companies is also generally exempt from the CIT. In addition to being exempt from CIT, qualifying holding companies are taxed at preferential rates on their net worth. Twenty-three cantons also grant exemptions or tax rebates to new corporations for

27. For companies with permanent establishments outside the canton where the head office is located, there are legal rules that determine the apportionment of the tax base between governments. These rules, which are intended to avoid double taxation, depend upon the company activity. As an example, industrial enterprises apportion income using a two-factor formula based on capitalised assets and payroll (Daly and Weiner, 1993).

VAT

28. VAT was introduced in 1995 to replace the turnover tax. There are two preferential rates and, aside from the usual exemptions, the VAT base in Switzerland is relatively broad.²⁰ The standard rate was raised 1 percentage point in January 1999 to the constitutional limit of 7.5 per cent and the preferential rates were increased respectively by 0.3 percentage point to 2.3 per cent and by 0.5 percentage point to 3.5 per cent. The effective rate, which equals VAT revenue divided by consumption expenditures, is among the lowest in the OECD (Table 8). On the other hand, VAT productivity, measured by the effective VAT rate divided by the standard VAT rate, is one of the highest in the OECD. This reflects the relatively narrow range of goods and services that benefit from reduced rates in Switzerland as well as reduced rates that are relatively high in relation to the standard rate (Table 9).

Tax harmonisation law (la loi sur l'harmonisation des impôts)

29. The Tax Harmonisation Law (THL), which came into effect in 1993, sets out the direct taxes that cantons can levy and the principles that tax legislation in the cantons must respect. Cantons have until 2001 to bring their legislation into conformity. The law harmonises the tax bases for net personal income and wealth taxes (before social allowances) and for corporate income and net worth. Tax rates and schedules are not being harmonised. Similarly, personal allowances for personal income and wealth taxation are not being harmonised as they are considered to be a component of the schedules. A major element of harmonisation was to give up five different tax-timing rules. The law provides for only the two following timing rules: taxation every second year on the average income of the previous two years (biennial *praenumerando*); or taxation every year on current income (annual *postnumerando*). The cantons may choose either for personal direct taxation but only the latter is allowed for direct corporate taxation.

30. Federal direct taxation was brought into conformity with the THL in 1995 through the first ordinary law for federal direct taxes (personal income tax, corporate income and net-worth tax). Amongst the changes required to harmonise the federal tax with cantons' taxes was a change in the timing of corporate taxation from taxation every second year on the average income of the previous two years to taxation every year on current income.²¹ Most cantons already have annual taxation of companies and 23 out of 26 aim also to have this system in place for personal taxation by 2001. As the cantons collect federal direct taxes, the timing they choose also applies to federal income taxation.²² The Federal Council is

a maximum of ten years. Finally, all the cantons offer preferential treatment to companies that are located in Switzerland but carry out nearly all of their activities abroad.

20. Food, tap water, medication, newspapers and books, plants and flowers are subject to the lowest rate while hostelry services are taxed at an intermediate rate (in recognition of the fact that the clientele is mainly foreign). Excluded services include the following: health, social security, education, culture, sports events, home rentals, financial transactions and insurance. As providers of these services are unable to claim VAT refunds on their purchases, these services are effectively subject to a reduced rate of VAT.
21. The Federal Council and tax administration wanted that change also for personal income taxation, but a majority of cantons were opposed.
22. There are two schedules of standard deductions for the federal income tax, one for taxes collected every year and the other for taxes collected every two years.

required by the THL to prepare a report for the Federal Assembly on tax harmonisation and unifying the timing of taxation after 2001. In view of the predominance of annual taxation already planned, it would appear that the days of the biennial system are numbered.

Tax administration and enforcement

31. Although all three levels of government collect direct taxes, there are not separate administration arrangements for each level of government. Cantons collect the federal income tax on behalf of the federal government (and under its supervision) and retain 30 per cent of the proceeds. (Of the federal income tax revenues retained by cantons, 17/30 remains in the canton where the tax was collected and the remainder is returned to the cantons through fiscal-equalisation arrangements, see below). Municipal direct taxes are generally levied as a surcharge on the cantons' taxes. The local cantonal tax office collects direct taxes for all three levels of government. The taxpayer (without direct tax liabilities in other cantons) files a single tax return under his canton's definition of the tax base and the canton tax administration makes the necessary adjustments to establish taxable income under the federal tax base. For example, 20 entries are necessary to convert the personal income tax base in the canton of Vaud in 1999 to the federal definition. The THL will reduce the extent of these conversions for personal income tax and eliminate them for company tax.

32. Administrative costs for the federal government amount to 0.4 per cent of tax revenue. For VAT at 6.5 per cent in 1998, compliance costs were about 0.55 per cent of tax revenue. For the cantons and communes, administrative costs amount to 1.5-2.5 per cent of revenues. A recent study on compliance costs in five cantons for small and medium sized enterprises shows that they spend about 100-250 hours per year on tax compliance.²³ This is less than what they spend on compliance with social security or with business regulations (construction permits, work permits, and so forth). When payments for external help are added, the total cost for tax compliance is in the neighbourhood of SF 3 500-6 500 per year in 1998. That is significantly less than in Austria and Germany. The comparison with a similar study performed in 1985 shows that tax compliance represents a much smaller share of total compliance costs in 1998. Within tax compliance, most time and money is spent on VAT compliance, followed by the withholding tax, and by stamp duties for those businesses that are concerned. There are, however, some isolated examples (such as death duties in Bern) where compliance costs are high owing to special regulatory arrangements.²⁴

33. The Swiss tax authorities do not have many of the tools available in other countries to enforce compliance though they consider that the tools they do have are adequate. Taxes on labour income are not withheld at source (no pay-as-you-earn system) but are assessed according to the individual tax return. Many cantons require employers either to report salaries paid or to submit complete payrolls directly to the tax administration. All employers must report all salaries paid when asked to do so by the tax administration. In addition, all employers must provide their employees with a salary certificate and all employees must submit this certificate together with their tax return. If an employee does not submit the certificate, he runs the risk of being taxed on the basis of an estimation of income and of facing penalties. Banking records cannot be inspected owing to bank secrecy except where there is evidence of a criminal offence²⁵ having been committed. Under Swiss law, failing to report income is not a criminal offence but

23. Müller (1998).

24. Notaries must be used as intermediaries for all aspects of administering the inheritance tax in Bern. On an inheritance of SF 200 000, their fees, which are regulated, amount to about 50 per cent of the death duties levied.

25. According to Swiss law, a tax fraud is committed on the one hand by the use of false documents, such as the presentation of a false balance sheet or falsified invoices to the tax administrations, aiming at the evasion of taxes. On the other hand, any fraudulent deception of the tax authorities with the aim to evade taxes also represents a tax fraud. In addition, according to court practice, Swiss tax authorities have access to bank information seized by the examining magistrate in any criminal procedure. This access is not

tax fraud is. Individuals do not have a taxpayer identification number (owing to the decentralised collection of taxes), although this exists for VAT taxpayers (the collection of this tax being centralised). The federal government and the cantons exchange information concerning direct taxes and the results of VAT audits. Since 1995, the tax authorities have also been able to consult social security files. For income on financial assets and lottery prizes, enforcement is facilitated by a high withholding tax -- 35 per cent -- although this is still less than the combined marginal income and wealth tax rates faced by many individuals.²⁶ (Income from foreign debtors is not subject to the withholding tax.)

Regional differences in tax burdens

34. Even after some formal harmonisation, there will still exist great differences in tax rates charged in different cantons and even municipalities. This reflects both the cantons' freedom in setting expenditures and substantial differences in wealth between jurisdictions. Income per capita in the three richest cantons (including Zurich, which has the largest population of any canton) is double that in the three poorest cantons (Table 10).²⁷ Total tax revenue per capita is about two-thirds higher in the three richest cantons than in the three poorest, but within each of these groups there are enormous differences in total taxation. The index of global tax burden, which is computed as a weighted average of the effective tax rates imposed on representative citizens of each canton by different taxes, shows that there are very large differences in tax burdens between cantons. This index (mean = 100) ranges from 57 in Zug, the richest canton, to 131 in Jura, the poorest canton. Income per capita is positively correlated (correlation coefficient of 0.56) with total tax revenue per capita but negatively correlated (correlation coefficient of -0.60) with the index of tax burden. There is no correlation between tax revenue and the index of tax burden. Some cantons obtain large tax revenues from high tax rates, but the majority of cantons with high tax revenues simply benefit from rich tax bases.

35. These differences in tax burden affect taxpayers' choice of residential location. The proportion of taxpayers with taxable income exceeding SF 100 000 in 1990 was 9.4 per cent in the most favourable canton (Zug) and 2.5 per cent in the least favourable canton (Jura), for a Swiss average of 5.5 per cent.²⁸ However, other factors also affect taxpayers' choice of location. The canton of Geneva, which has a tax schedule that is markedly less favourable to high-income taxpayers than that in Zug, has an even higher proportion of high income taxpayers. An econometric study taking into account a variety of influences on location decisions found that differences in income tax rates between cantons and communes can *each* account for differences in the proportion of the highest-income taxpayers (income > SF 100 000) across municipalities exceeding 4 percentage points (Kirchgässner and Pommerehne, 1996)²⁹ The results for the other high-income groups show that differences in municipal tax rates have a somewhat greater impact than differences in cantons' tax rates. Those results are confirmed when the categories of taxpayers in the

restricted to information related to persons accused but also includes information with respect to third persons.

26. As an illustration, consider a taxpayer with SF 100 000 gross income and SF 300 000 net wealth. Suppose he earns SF 2 000 income on SF 50 000 wealth that he could "forget" to report. If he does not report that wealth and its income, he loses the withholding tax of SF 700 (35 per cent of SF 2 000). If he reports truthfully, he pays income tax at a marginal rate of about 30 per cent on SF 2 000 and wealth tax at a marginal rate of about 0.4 per cent on SF 50 000 (average across the cantons) for a total of SF 800.

27. Some of the differences in wealth can be explained by geographical factors: the richest cantons are densely populated and located on the central Plateau while the poorest cantons are sparsely populated and located in the mountains.

28. Feld, Kirchgässner, and Pommerehne (1996).

29. Feld, Kirchgässner and Pommerehne (1996) perform such an estimation with data for the 137 largest Swiss municipalities gathering 46 per cent of total population, with data for 1990. Kirchgässner and Pommerehne (1996) did the same with 1987 data.

highest-income group are broken up (retired people, dependent workers and self-employed).³⁰ (The same study found that tax variables have no significant impact on rents.)

36. There has not been convergence of individual tax burdens over the past decade (Table 11). However, there has been some convergence in company tax burdens, which on (a simple) average declined by 4 percentage points between 1985 and 1997. There was a marked increase in the number of cantons with company tax burdens below the Swiss average (from five to ten) and a reduction in the number with above average company tax burdens and below average individual tax burdens (from ten to six) (Figure 2). Reductions in corporate tax burdens have mainly occurred by way of the tax on corporate profits (as opposed to the net worth tax).

Fiscal equalisation

37. Fiscal equalisation is intended to compensate governments for services provided that benefit citizens in other jurisdictions as well as to reduce differences in wealth across the country. Most transfers are from the federal government to cantons. These “vertical transfers” amount to around 3 per cent of GDP. About three-quarters of these transfers are linked to expenditures. Approximately one-third of vertical transfers principally depend on cantons’ index of financial strength. This index is based not only on the potential resources available, but also on the tax burden (the higher the tax burden, the higher the equalisation transfer). The index ranges from 30 to 206 (mean = 100). Such transfers, which are known as “financial equalisation in the narrow sense”, include the following:

- Certain federal subsidies, which are subject to ceilings;
- Sharing of part of the cantons’ share of federal tax revenues (13 per cent of the federal income tax, 10 per cent of the withholding tax);
- Sharing of fuel duties and Swiss National Bank profits;
- Sharing of the cantons’ contributions to the federal government’s social expenditures.

The redistribution effect of the transfers that principally depend on cantons’ financial strength is weak: only 15 per cent of these transfers (or 5 per cent of total vertical transfers) go to cantons with a weak or average financial capacity. The transfers between cantons, which are relatively small, mainly reflect agreements that have been made to share the costs of health and education services that benefit citizens in neighbouring jurisdictions. Fiscal equalisation arrangements also exist between municipalities.

38. Consultation procedures are underway to reform fiscal equalisation. The present arrangements are considered to be too dependent on expenditures, weakening cantons’ incentives to spend money efficiently, and not to reduce wealth inequalities adequately. Moreover, spatial spill-over effects between jurisdictions are considered not to be adequately compensated. This is creating financial difficulties for large cities, as they provide facilities of benefit to persons living outside the city. Such facilities include universities, cultural institutions and hospitals equipped to offer sophisticated medical services. In addition, large cities bear a disproportionate share of social assistance costs because many persons in difficulty are attracted to large cities by the anonymity that they offer. Key to the revised fiscal equalisation arrangements is the redistribution of expenditure responsibilities to the level of the decider-payer subject to

30. The models have some unsatisfactory features: the authors could not use the tax rates that actually apply to each category of taxpayer, R2 never exceed 50 per cent, and Jarque-Bera tests reject the hypothesis of normal residuals. When the outliers are excluded to amend that problem, the R2 drop and the influence of tax differentials shrinks.

the principle that responsibilities remain at the lowest feasible level of government. This should give cantons more responsibility for expenditure decisions and increase the proportion of vertical transfers not tied to expenditures. The redistribution element of the system is to be reinforced and equalisation transfers are to depend on a new “resources index” that does not take into account the tax burden. The aim is eventually to reduce the range of the tax-burden index to 85-120 (mean = 100). In addition, there will be legal obligations for cantons to negotiate co-financing arrangements for services that generate spatial spill-over effects.

Progressiveness of tax system

39. Switzerland’s tax system is relatively progressive by international comparison. The sum of the marginal income tax rate and social security contribution rate for a top rate earner is some 20 percentage points higher than for the average production worker (APW) (Table 12).³¹ Over a wide range of incomes (up to three times APW earnings) which covers most taxpayers, the rate schedule (also allowing for cash social transfers) rises steadily, whereas it is much flatter in neighbouring countries and the United States (Figure 3). In line with these results, the effective distribution of personal income tax burdens in Switzerland is quite progressive.³²

40. Even so, redistribution in Switzerland principally occurs through government expenditures. About 63 per cent of the reduction in the Gini-coefficient between factor income and “final incomes” (*i.e.* factor incomes augmented by public expenditure and reduced by taxes under standard incidence assumptions) is attributable to government expenditures, with the remainder being attributable to taxes (Kirchgässner and Pommerehne, 1996) (Table 13). This is comparable to the amount of redistribution through expenditures in the United States, Canada and Germany, the other federations included in the aforementioned study. What is unusual about Switzerland compared to these other federations is that most of the redistribution through taxation occurs at sub-central levels of government (despite there being no great difference in the proportion of revenues raised at lower levels of government -- see Table 1). Allowing for both expenditures and taxes, the amount of redistribution in Switzerland is approximately the same as in the United States, somewhat higher than in Canada and a little lower than in Germany (*ibid.* p. 365).

Labour tax wedges

41. The wedge between labour earnings before and after tax generally reduces employment.³³ In the adjustment phase to a new equilibrium, a higher labour-tax wedge also increases unemployment. The more

31. There are a number of limitations to measuring the progressiveness of the tax system in this way that should be borne in mind. First, at higher income levels, families find themselves increasingly in a position different from the APW assumptions because the take-up of tax deductions and exemptions not included in the tax equations gains progressively in significance. Second, social security contributions – which are in the APW tax equations – are not paid by large groups of the taxpayer population in many countries, notably pensioners, the self-employed and benefit recipients. Third, the share of personal income tax in the tax mix and consequently its impact on the redistributive potential of the tax system as a whole varies strongly from one country to another.

32. For Federal Income Tax covering the 1993/94 tax period, the top 50 per cent of income earners declared 72 per cent of income (less if the incomes of taxpayers with incomes below the tax-exempt limit are taken into account) and paid 93 per cent of personal income tax. At the level of the cantons for the 1995/96 tax period, the top 50 per cent of taxpayers contributed 86 per cent of total income tax revenue.

33. The wedge will have no effect on employment if labour supply does not depend on real wage rates (*i.e.* perfectly inelastic labour supply with respect to after-tax real wage rates) or will increase employment

flexible are real wage rates, the less an increase in the labour-tax wedge reduces employment and, during the transition phase, increases unemployment. The total labour tax wedge³⁴ for a single person in Switzerland rises quickly to around 40 per cent at a little over APW earnings, and then rises slowly to around 50 per cent at three times APW earnings (Figure 4). The wedges for married persons are a little lower. These wedges are comparable to those in the United States but are below those in Switzerland's neighbours, especially for low paid workers. The Swiss wedges are also below the OECD average and well below the EU average. If consumption taxes were also taken into account (they also affect the incentive to supply labour), the Swiss and US wedges would be even lower compared with most other OECD countries. As real wage rate flexibility in Switzerland appears to about average for an OECD country,³⁵ the labour tax wedge is likely to have less damaging effects on employment and unemployment than those in most other countries.

Capital tax wedges

42. The OECD Secretariat has measured marginal effective tax rates for three types of asset -- machinery, buildings and inventories -- and for three funding sources -- debt, new equities (*i.e.* sources that pay dividends) and retained earnings (*i.e.* sources that pay capital gains) (Table 14). These are based on statutory parameters on both personal and corporate taxes for nine cantons³⁶ (they also include federal taxes). The estimates reflect the complex array of instruments used in personal and corporate direct taxation in Switzerland. This includes progressive rates of return taxes on corporations (top rates are taken) and net wealth taxes on both corporations and individuals. The estimates show that, on the asset side, cantonal and federal tax practices tend to favour buildings and equipment over inventories. In this respect, the cantons exhibit patterns typical of nearly all OECD countries (Table 15) (OECD, 1991 and Gordon and Tchilinguirian, 1998). However, among the cantons, this discrimination is not very pronounced. This suggests that "normal tax practice" involves a reasonably close alignment of economic and tax depreciation and that there are few other incentives for physical investment in the general tax regime.³⁷ However, the Swiss personal and corporate tax codes favour financing by retained earnings and, to a lesser extent, debt. New equity is fairly strongly discriminated against due to the lack of an imputation system or other form of relief from the double taxation of dividends. According to these estimates, financing by retained earnings is slightly favoured relative to debt, reflecting the absence of a personal capital gains tax and higher personal income tax rates than corporate tax rates. These numbers also suggest that the cantons are not very different from one another when it comes to the investment and financing incentives created by their general corporate and income tax systems. The differences in their overall average tax wedges are quite small (the range is far less than 1 percentage point of effective marginal taxation, which is far less than the range for the OECD as a whole).³⁸ One noteworthy feature of the numbers is the degree to which

if labour supply is inversely related to after-tax real wage rates. Such cases are theoretical curiosities rather than empirical characteristics of labour-supply functions.

34. This includes income taxes, social security contributions, private pension contributions (which should not be considered as taxes) and cash transfers.
35. OECD (1996), *Economic Survey of Switzerland*, p. 60.
36. These use the King-Fullerton method, as adapted by the OECD and described in OECD (1991). They are fairly comparable to the estimates reported in OECD (1991) and in Gordon and Tchilinguirian (1998). The main difference is that the present estimates include wealth taxes, while the earlier ones do not.
37. It also indicates that the cantons tend to extend relatively few tax credits for this type of investment via their normal tax regime. Of course, such credits or other types of tax expenditure with more specific targets (*e.g.* designed to encourage investment in particular sectors or by particular types of firms may exist outside the normal tax regime). These numbers are meant to apply to a manufacturing company to which "normal" tax treatment is accorded.
38. The range of overall average marginal effective tax rates for the OECD as a whole is several percentage points of marginal effective taxation.

the cantons use a complex range of tax instruments (indeed, one whose complexity is rivalled by no other OECD country) in order to end up with an overall investment incentive structure that is neither “best practice” nor “worst practice”.

Average effective tax rates

43. The OECD Secretariat has also calculated average effective tax rates (AETR) for capital, labour and consumption. These are based on measured revenue flows and on National Accounts statistics.³⁹ Compared with the averages for the EU and for the OECD, Switzerland’s AETRs in 1991-96 are about the same for capital (based on gross operating surplus⁴⁰ and including all property income), at 25 per cent, low for labour, at 30 per cent (compared with 36 per cent for the EU and 33 per cent for the OECD), and extremely low for consumption, at 8 per cent (compared with 21 per cent for the EU and 17 per cent for the OECD). These estimates overstate the AETR on capital and understate the AETR on labour in countries that have favourable tax treatment for savings with pension funds and/or life insurance companies. For Switzerland, adjusting the estimates for the fact that no tax is paid on earnings as they accumulate reduces the AETR on capital in 1991-96 by 6 percentage points and raises the AETR on labour by 2 percentage points. As pension fund- and life insurance assets as a share of GDP are greater in Switzerland than in most other OECD countries (see below), this adjustment makes a greater difference to the estimates for Switzerland than those for most other countries. Allowing for this factor, Switzerland has low taxation of capital income and moderate taxation of labour income by international comparison.

44. A much more important influence on the estimates of the AETR on labour is the fact that Switzerland’s second pillar of the retirement income system is privately funded. If these contributions were instead social security contributions, Switzerland’s AETR on labour in 1991-96 would have been 9 percentage points higher, bringing it into line with the rates in many European countries.

Main issues for strengthening the system

45. An economic analysis of a tax system focuses on its effects on economic efficiency and equity. Efficiency calls for taxes which minimise distortions in otherwise efficient economic choices (minimise excess burden) and in administrative and compliance costs, subject to the constraints due to equity objectives. Taxes on negative externalities (such as man-made pollution) also contribute to economic efficiency. Equity generally calls for taxation according to ability to pay. The most widely accepted measure of this is comprehensive income (*i.e.* total income, regardless of its source or form). Trade-offs are often required between these objectives. Notably, society may prefer to have more redistribution at the expense of less economic efficiency or vice versa. Sometimes, reforms are possible that would enhance both efficiency and equity.

46. Tax systems may also reflect the pursuit of other objectives and/or the effects of political constraints. These objectives and/or constraints may be at the expense of efficiency and/or equity. In the

39. See Carey *et al.* (1999) for a technical description of the average effective tax rate calculation and a discussion of the limitations of this approach.

40. AETRs for capital based on gross operating surplus provide a more reliable international comparison than estimates based on net operating surplus because this avoids the effects of the large differences in assumed asset service lives in different countries’ National Accounts. Asset service lives are assumed to be much shorter in Switzerland than in most other countries. This large difference cannot be easily explained with reference to structural factors. It has a major impact on the estimated capital tax base and therefore on the effective tax rate as well, as can be seen from comparing the estimates based on gross and net operating surplus. As the estimates based on gross operating surplus exclude depreciation costs, they overestimate the size of the tax base and hence underestimate the effective tax rate on capital.

case of Switzerland, the desire to maintain a highly decentralised political structure precludes a number of reforms that could enhance economic efficiency and/or equity from a national viewpoint. Another important point to bear in mind is that tax reforms are complementary with each other and with other reforms. If certain parts of a package are unlikely to be implemented, this must be taken into account in designing the rest of the package. For example, the desirability of introducing a personal capital gains tax in Switzerland depends on the structure of other taxes on capital income and the prospects for reforming them. Switzerland's political structure and the chances of implementing specific tax reforms condition the recommendations made in this section.

Reduce tax privileges for savings with pension funds and insurance companies

47. Compared to the standard treatment under a comprehensive income tax, present arrangements for the taxation of savings with pension funds and life insurance companies are very favourable (Box 1). Tax incentives for these forms of long-term saving are intended to assist individuals to accumulate sufficient wealth to finance a broadly similar (but reasonable) living standard in retirement to that enjoyed while working. Although contributions to earnings-related pension schemes have only been compulsory since 1985, the Swiss have nevertheless accumulated substantial pension fund assets (75 per cent of GDP in 1996) by international comparison. Life insurance company assets (61 per cent of GDP in 1996) (Tables 16 and 17) are also high. Indeed, the combined total of pension fund and life insurance assets (136 per cent of GDP) is among the highest in the OECD. These figures certainly suggest that these incentives contribute to the accumulation of this form of long-term savings (as must do the mandatory nature of most pension fund contributions). On the other hand, the rate of owner-occupied housing, the other main vehicle for long-term saving, is very low by international comparison (Figure 5). The Swiss appear to prefer (or, to some extent are obliged) to hold a larger proportion of their long-term savings in pension funds and life insurance companies than do persons from other countries.

48. From an economic perspective, the question arises as to why incentives are required to encourage individuals to save more for retirement than they otherwise would. Assuming that individuals are rational, the main argument for incentives is that they are necessary to counter the moral hazard inherent in social assistance arrangements. In other words, people may choose not to save enough for retirement so as to be able to receive social assistance. But this argument does not apply in Switzerland because participation in the first⁴¹ and much of the second pillars⁴² of the retirement income system is compulsory. Another argument for privileged tax treatment is that this reduces the disincentive to save inherent in an income tax (it reduces the return to saving, whereas an expenditure tax does not). There is considerable debate amongst economists about whether these schemes increase net saving or largely encourage households to switch the form in which they save.⁴³ Even if these arrangements do increase net saving, this is unlikely to be the most cost-effective way of doing so.

41. The first pillar provides a universal flat-rate pension financed on a pay-as-you-go basis.

42. Earnings-related contributions (at an average rate of 17 per cent) are compulsory on annual salaries up to SF 71 640.

43. Results of the principal research on this question in the American context are discussed in Mitchell and Moore (1997). Two groups of researchers have dominated the debate in recent years. One group, Poterba, Venti and Wise (1993, 1996a, 1996b, 1996c), concludes that between 45 and 66 cents per dollar contributed to an Individual Retirement Account (IRA) represents new saving, with the balance coming from the tax subsidy and reallocation of existing saving. The other, Gale and Scholz (1994) and Engen, Gale and Scholz (1996), concludes that most IRA and 401(k) contributions are financed through tax savings and the shifting of taxed vehicles to tax-favoured vehicles. Bernheim (1996) and Hubbard and Skinner (1996) review both sets of studies. These authors conclude that the effect of these tax incentives on net saving probably lies between the estimates of the two sets of studies.

Box 1. Tax treatment of savings with pension funds and life insurance companies

Earnings-related contributions to pension funds (second pillar) are tax deductible provided that contributions are made in accordance with the rules and conditions of the particular pension fund. There is no absolute upper limit on earnings-related contributions. Voluntary contributions by taxpayers not affiliated to a second pillar scheme and voluntary contributions by employees that are paid in addition to the contributions to their second pillar (pillar 3a) are tax deductible as well. However, contributions to pillar 3a are limited to SF 28 656 (for taxpayers not affiliated to a second pillar) and to SF 5 731 (for taxpayers affiliated to a second pillar fund) per year. Life insurance premiums (pillar 3b) are not deductible. The earnings on all these funds accumulate tax-free. Distributions from deductible contributions (pillars 2 and 3a) are taxed. Annuities are fully taxed with other income while lump sum payments are taxed separately from other income at a lower rate, partly to compensate for the effects of the progressive tax schedule, partly as compensation for the loss of interest due to the early payment of the tax. In the case of the Federal Income Tax, this rate is one-fifth the ordinary rate, while cantons tax such lump-sum payments at a variety of favourable rates according to their own legislation. Distributions from life insurance policies are exempt from tax as lump sums. If the proceeds are used to purchase an annuity, it is taxed after making an adjustment to exclude the part of the annuity that represents a return of capital (this adjustment reduces the annuity by 40 per cent under Swiss tax law). The tax treatment of each of the stages in constituting long-term savings (contributions, fund earnings and distribution of benefits) can be summarised as exempt-exempt-taxed (EET) for pension funds and taxed-exempt-exempt (TEE) for life insurance policies. Many other OECD countries have similar arrangements.

These arrangements are all more favourable than the normal treatment (as is accorded savings in a bank account, for example) under a comprehensive income tax, which is TTE. The main concession is that earnings are not taxed as they accumulate.¹ For life insurance policies (TEE), this means that taxation does not affect the incentive to save. The taxation of pension-fund annuities (EET) is even more favourable for two reasons. First, marginal personal income tax rates in retirement are generally lower than the weighted average of corporate and personal rates on income from which contributions were deducted. And second, taxation partly depends on investment returns, reducing risk. Pension fund savings distributed as lump sums receive still more favourable treatment, as benefits are taxed at reduced rates. In addition, all savings with pension funds are exempt from personal wealth taxes and estate duties.

1. Assuming certainty and proportional income tax rates, this makes the taxation of pension-fund (*i.e.* pillars 2 and 3a) annuities (EET) and of life insurance policies (TEE) the same as expenditure taxation. Under these assumptions, neither tax arrangement affects the incentive to save.

49. The favourable treatment accorded savings with pension funds and life insurance companies reduces economic efficiency by giving these institutions a tax-based competitive advantage over other financial intermediaries. This enables pension funds and life insurance companies to hold market share that other, more efficient financial intermediaries would otherwise hold. Economic efficiency is further undermined by the influence of tax incentives on the asset allocation choices of pension funds and life insurance companies.⁴⁴ At best, this creates a regulation and/or tax-based clientele for different asset classes. In particular, pension funds and life insurance companies have a tax incentive to weight their portfolios towards bonds, loans and property, which generate taxable returns for other investors, at the expense of equities (as personal capital gains are not taxed). This is indeed the way that Swiss pension funds' portfolios are weighted (Table 18). This contributes to a sub-optimal allocation of savings on risk-return criteria. Long-term savings tend to be under invested in equities, which have a high return but high risk, while short-term savings are over invested in risky equities. As savings with pension funds and life insurance companies are large relative to other savings (see below), their investment choices will further undermine economic efficiency by distorting the allocation of investment resources. For example, there would tend to be over investment in property (and fewer owner-occupiers) at the expense of other forms of investment. Moreover, this narrowing of the tax base necessitates higher tax rates on remaining bases, increasing the excess burden of those taxes.

44. In principle, regulation could also affect the asset allocation choices of pension funds, especially as Switzerland adopts a prescriptive approach rather than a "prudent man" approach to this regulation. These regulations set the following upper limits to asset allocations: 30 per cent on domestic share, 55 per cent on property and 30 per cent on foreign currency assets (OECD 1998c, p. 370). However, none of these limits has been binding in recent years.

50. These arrangements also give rise to economic rent that is not competed away because of barriers to entry. Savers cannot switch to non-resident pension funds and life insurance companies as the tax benefits would no longer apply while it would be costly for foreign institutions to set up permanent establishments in Switzerland. Pension funds and life insurance companies are able to retain some of the tax benefits through higher charges and fees and still remain competitive with other financial intermediaries. This reduces the incentive to long-term saving provided by the tax incentives and encourages pension funds and life insurance companies to invest resources (lobbying, for example) in obtaining these rents. While such activity may be profitable for the companies, it is not productive from a national viewpoint.

51. It can also be argued that the tax preferences for savings with pension funds and life insurance companies are unfair. Persons with the same comprehensive income but different proportions derived from savings with pension funds and life insurance companies will not pay the same amount of tax, violating horizontal equity. Similarly, a person with a lower comprehensive income than another could nevertheless pay more tax if they have considerably less income derived from savings with these institutions. The tax preferences also reduce the progressiveness of the tax system because deductions and exemptions are worth more to persons on high marginal income tax rates.

52. The Behnisch Commission in Switzerland recently examined the tax treatment of savings with pension funds and life insurance companies in the context of an investigation into major lacuna in the Federal Income Tax on individuals. The Commission recommended that earnings-related contributions to pension funds be limited to a salary (SF 214 920, corresponding to a deduction of SF 36 536 at the average private sector contribution rate of 17 per cent) of three times the salary up to which contributions are compulsory. They noted that the relevant article (No. 34) in the Constitution calls for benefits under the first and second pillars of the retirement income system that enable beneficiaries to maintain their living standards in an appropriate measure, not to enjoy a luxurious or ostentatious living standard. Noting that Swiss tax law applies the principle that contributions to pension funds should be deductible, fund earnings should be tax free as they accumulate and distributions should be fully taxed, the Commission also recommended that earnings-related benefits taken as lump sums should be taxed along with other income. This would entail adding the life annuity that could be bought with the lump sum to other income to determine the average tax rate on such an annuity and applying this rate to the lump sum, as was done up until 1986. The Commission added that the current treatment was particularly inappropriate because it encouraged people to take their benefits as lump sums rather than as pensions.⁴⁵ The Federal Council adopted the Behnisch Commission's recommendations with one main modification, that earnings-related benefits taken as lump sums be taxed at half the normal rate. In the event, Parliament rejected the Commission's main proposals. Hence, the major features of long-term savings arrangements remain unchanged.

53. Economic efficiency could be enhanced by abolishing all tax privileges for this form of saving and using the revenue to reduce taxes that impose high economic costs. This could include lower taxes on saving in general. The removal of tax privileges would entail the taxation of earnings of pension fund and life insurance policies as they accumulate. If such a reform were to be made, it would be vital to maintain the compulsory elements of the retirement income system so as to avoid the moral hazard problem of people not providing adequately for their retirement in order to obtain social assistance benefits.

45. The Commission also recommended that:

- the adjustment to the value of annuities to exclude the part that represents a return of capital be raised from 40 per cent to 60 per cent (based on average life expectancy and an annuity that lasts for ten years);
- single-premium life insurance policies could only retain all of their tax privileges for contracts signed before the assured reached 60 years old.

Limit personal interest deductions to declared capital income

54. Households in all but five cantons are allowed unlimited deductions for interest expenses. If income flows from all assets were fully taxed, this treatment would be consistent with a comprehensive income tax. However, income flows from all assets are not fully taxed. The most important case in point is assets held in insurance companies. Households are able to reduce their tax liability by borrowing to acquire such assets. This gives rise to a deduction for interest expenses but no extra taxable income from the investments, compounding the attractiveness of such investments. However, there are a number of factors that restrain households from unduly reducing their income tax liability:

- The courts have established rules defining what constitutes tax avoidance in this area. If a given situation in this field is considered to constitute tax avoidance, interest is not deductible;
- The fees charged by life insurance companies (these include entry costs, management fees and risk premiums, which have a negative influence on returns);
- The 2½ per cent stamp duty on single premium insurance policies;
- The lack of liquidity of the assets;
- The desire to maintain prudent gearing ratios, which may also be imposed through credit rationing; and
- The risk that government withdraws some or all of the tax privileges that create this tax avoidance opportunity.

Owner-occupied housing also generates income that is not fully taxed.

55. The Behnisch Commission recommended that household interest deductions should be limited to the amount of declared capital income or 50 per cent of gross income, whichever is greater. This is the model followed in Geneva. The Federal Council took up this issue in its 1998 Stabilisation Programme, proposing that household interest expenses should be deductible up to SF 20 000 more than declared capital income. The possibility of declaring a loss on the capital account up to SF 20 000 was intended to help taxpayers over-burdened with debts but with little capital income and to enable new home owners to declare a loss on their housing accounts. This amount was raised to SF 50 000 in the final reform approved by Parliament. While this reform goes in the right direction, it does not go far enough. So long as it is possible to invest in assets that generate a non-taxable income, households should not be permitted to claim more interest expenses than the capital income they declare. However, the possibility of financing assets that potentially generate non-taxable capital gains through credit finance is limited. By virtue of practice and jurisprudence capital gains are often taxed as income from professional activity. Capital gains on immovable property are always subject to cantonal and/or municipal taxation.

Reform taxation of owner-occupied housing

56. In relation to housing, the Swiss tax system aims to treat the owner-occupier in the same way as the pair formed by the landlord and tenant. This means fully taxing imputed rents after deduction of expenses. In practice, imputed rents are below market rates, although not by so much as in some other countries where imputed rents are taxed. The imputed rental may not be less than 70 per cent of the market rental for the federal income tax and 60 per cent of the market rental for the income tax of the cantons and municipalities. Presently, imputed rentals are less than 70 per cent of market rentals in ten cantons. A

supplement is added to the imputed rental as calculated by these cantons to bring it up to 70 per cent of the market rental for the purposes of the federal income tax. In four of these cantons, imputed rentals are less than 60 per cent of market rentals. These cantons are obliged to give a deduction to tenants in order to re-establish equality between owner-occupiers and tenants. In the remaining 16 cantons, imputed rentals are mostly between 70 and 90 per cent of market rentals.

57. The main problem with the taxation of imputed rentals appears to be excessive expense claims. Indeed, housing accounts in aggregate are in deficit. Abolition of the taxation of imputed rentals (along with the deductibility of interest payments and maintenance expenses) actually would increase tax revenue! One source of the high expense claims is that homeowners have an incentive to maintain large mortgages and to invest in life insurance policies. This generates a tax-deductible expense and no extra revenue. The other major source is capital improvements claimed as maintenance expenses.

58. If the tax incentives for long-term saving with pension funds and life insurance companies were significantly reduced, there would be a strong case for raising imputed rentals closer to market values and more carefully controlling maintenance expenses. One solution for controlling maintenance expenditures could be to allow a fixed charge as a percentage of the value of the building and to treat additional expenditures as capital outlays, to be depreciated over time. A solution along these lines was adopted in the Netherlands in 1971. (Even so, owner-occupied housing accounts there remain in deficit by about 2 per cent of GDP.) In the event that housing accounts in aggregate remained in deficit, consideration should be given to phasing out the taxation of imputed rentals and all of the associated expense claims (including mortgage interest payments). However, if the tax incentives for long-term saving with pension funds and life insurance companies remain unchanged, there is not a strong case for reducing the tax advantages that owner-occupiers presently enjoy. Doing so would only serve to encourage an even more unbalanced allocation of long-term savings between pension funds and life insurance companies on the one hand and owner-occupied housing on the other.

Phase out personal net wealth taxes

59. The cantons and municipalities are obliged by the Law on Tax Harmonisation to levy personal net wealth taxes (as well as corporate net worth taxes). These taxes, which do not exist in most other OECD countries,⁴⁶ are an important factor contributing to the relatively high taxation of capital income in Switzerland not receiving preferential treatment. A personal net wealth tax represents a surcharge on capital income from assets included in the tax base. If comprehensive income is accepted as a good measure of ability to pay, this surcharge undermines equity by making tax liability also depend on the proportion of income derived from taxed assets. For example, horizontal equity is violated when an individual with the same comprehensive income as another pays more tax because they have a smaller proportion of their capital in forms exempt from the wealth tax, such as pension fund assets or human capital. Consideration should be given to terminating personal net wealth taxes, as has already occurred at the Federal level (and, in recent years, in Germany, Austria and Denmark). The enforcement benefits of net wealth taxation could be retained by continuing to require households to file a declaration of net worth. The phasing out of personal net worth taxes would lower one of the barriers identified by the Behnisch Commission to introducing a personal capital gains tax.

Replace existing corporate taxes with a flat-rate tax on corporate profits

60. Other unusual features of capital taxation in Switzerland are the progressive rate of return tax on corporate profits and the corporate net worth tax levied by the cantons and municipalities. No other OECD

46. The following OECD countries, in addition to Switzerland, have personal net wealth taxes: France; Finland; Iceland; Mexico (on businesses controlled by individuals); Netherlands; Norway; Spain; Sweden.

country has a progressive rate of return tax on corporate profits and only Finland (on companies in which the shareholders are not subject to wealth tax), Iceland and Mexico have corporate net worth taxes. This tax structure discourages risk taking. If a company makes a high rate of return it faces a high tax rate (from the progressive rate of return tax, although this disadvantage is attenuated by the possibility of carrying forward losses)⁴⁷ while even if the company makes a loss it must still pay the net worth tax. Thus, the tax system tends to tax disproportionately favourable profit outcomes, while continuing to impose taxes (via the wealth tax) when profit outcomes are unfavourable. These arrangements are particularly disadvantageous for business start-ups as they tend to be more risky than established businesses. This disadvantage is compounded by the lack of relief to shareholders for taxation of distributed profits under both the corporate- and personal income tax systems.⁴⁸ These arrangements also have arbitrary effects on tax equity. Looking through the corporate veil, there is no reason to expect these taxes to be in any way related to shareholders' personal ability to pay.

61. It would be fairer and more efficient to replace the progressive rate of return tax on corporate profits with a flat-rate tax, abolish the net worth tax and introduce shareholder relief for the double taxation of dividends.⁴⁹ This would also bring corporate taxation into line with practice in most other OECD countries. The latter reform would also contribute to establishing the Behnisch Commission's pre-conditions for introducing a personal capital gains tax -- namely, lower taxation of capital income. Unfortunately, there are serious obstacles to introducing these reforms in Switzerland. When the federal government initially proposed replacing its progressive rate-of-return tax on corporate profits with a flat-rate tax that would generate the same amount of revenue it encountered considerable opposition. It seems that most companies had a lower rate of return than the (weighted) average and would consequently have faced a higher tax bill. (A minority of companies, with above average rates of return, pay most of the tax.) In order to gain political acceptance for the reform, the federal government was obliged also to abolish the net worth tax (a desirable reform in its own right), which falls most heavily on companies with a low rate of return, and to concede tax revenue. If the cantons wished to implement a similar reform, they too would probably have to concede tax revenue to gain popular approval. Introducing shareholder relief for the double taxation of dividends would be even more difficult because some cantons would lose tax revenue. Switzerland's highly decentralised federal structure is probably an insurmountable barrier to such a reform.

Environmental tax reforms

62. Although Switzerland has an enviable record in protecting its environment, it has largely done so through directive regulation. As in other countries, the authorities have recognised that many environmental objectives could be attained more cheaply through greater use of economic instruments. (This also makes the costs of environmental regulation more transparent.) However, progress in substituting economic instruments for environmental regulation has been rather modest to date. At the federal level, the first pure environmental tax came into effect in June 1998, on light oil with high sulphur content. The introduction of a second one, on volatile organic compounds, was delayed from 1998 to 2000. [The revenue from these taxes is to be returned to the population through lump sum subsidies for medical insurance premiums on the grounds that this benefits the whole population and compensates for the possibly small regressive effects of these taxes. The disadvantage of this approach is that there is no efficiency gain from reducing taxes that distort economic choices (lump sum subsidies are effectively

47. Losses may be carried forward for up to seven years.

48. The absence of imputation credits does not discourage investment out of retained earnings because taxes on dividends must be paid even if the investment does not occur and the earnings are instead distributed. Investment out of retained earnings just defers the payment of taxes on dividends. By contrast, investment financed by new equity creates a new liability to dividend taxation at some point in the future.

49. The absence of a personal capital gains tax would complement these arrangements as this ensures that retained earnings are not subject to double taxation.

negative poll taxes).] There are also some specific environmental taxes (*e.g.* on waste) at the levels of the cantons and municipalities. In addition, there is a range of taxes mainly aimed at raising revenue but which also have positive environmental effects. Environmentally related taxes amount to about 2 per cent of GDP, somewhat less than the average of the OECD countries for which data are available (Figure 6). As in other countries, most such revenue is derived from taxes on energy used in transportation (such taxes have other objectives as well, such as paying for roads and reducing congestion).

63. The Federal Council announced in 1998 that an “ecological tax reform” would be included in the new financial order (*i.e.* the legal authority for the federal government to raise tax revenues), which is to replace the existing order at the end of 2006 at the latest. This would introduce an energy tax and reserve the proceeds (SF 2-3 billion per year) mainly for financing a reduction in social security contributions. A project is to be submitted to the official consultation procedure in 1999 and a proposal is to be submitted to Parliament in 2001. The law on reductions in CO₂ emissions, which would introduce a tax in the event that other measures prove insufficient, has not yet been approved by Parliament because agreement has not yet been reached on whether Parliament or the Federal Council should have the authority to introduce the tax.

64. The move towards greater use of environmental taxes should enhance economic efficiency by discouraging economic activities with harmful environmental effects and/or by reducing the costs of environmental regulation. The extent to which these benefits are realised, however, depends on the nature of the reforms. One feature to avoid is special treatment for the greatest polluters or most intensive users of non-renewable resources. This is often done to protect the international competitiveness of the industries concerned. Unfortunately, it undermines the efficiency of the tax. This is especially so for a local pollution problem, where shifting the most polluting activities abroad may be part of an efficient solution. But even for a global pollution problem (such as CO₂ emissions), where shifting polluting activities abroad does not help to solve the problem, such crude exemptions may not be necessary to enable these industries to remain internationally competitive. For example, it would be possible to levy the tax in proportion to the consumption or emissions that are to be discouraged and to refund the revenues in proportion to sales or production. The proportion of sales or production to be refunded would be set for a whole industrial sector at a level such that the average polluter in that sector is subject to the net burden that is considered to be bearable.⁵⁰ It would also be possible to apply the tax to imports of polluting products. Article XX of the GATT permits a WTO member to place its national environmental goals ahead of its general obligation not to raise trade restrictions or to apply discriminatory trade measures, provided that the steps are transparent and non-discriminatory between domestic and foreign producers.⁵¹ However, these rules probably would not permit the taxation of (non-polluting) imports manufactured by industries that are taxed domestically but not abroad.

65. Another feature to avoid is requirements that the tax revenues be spent on environmental projects. If there are worthwhile environmental projects, they should be funded irrespective of whether or not environmental taxes are introduced. The risk is that public funds are spent on projects of such low value that the authorities would be unwilling to finance them out of general tax revenue. Ideally, revenues from environmental taxes should be used to reduce the most inefficient and/or inequitable taxes. While social security taxes may not be the worst in these respects, there should nevertheless be some economic benefit from reducing them with the revenues from the proposed federal energy tax. This would represent an attempt to exploit the so-called “double-dividend” from environmental taxes, the second dividend being increased employment as a result of lower social security charges. Nevertheless, the available evidence from OECD countries suggests that any such double dividend is small.

50. Thalmann (1997).

51. See: <http://www.wto.org/wto/enviro/vironm.htm>.

Swiss tax arrangements in an international setting

66. This section addresses two questions relating to the international dimensions of Swiss tax arrangements. How robust will these arrangements prove to be in the face of increasing globalisation and financial mobility? Do Swiss tax practices attract mobile tax bases from abroad?

Vulnerability of Swiss tax bases to international base mobility

67. Switzerland's tax structure appears to be fairly robust to international competition. In attempting to deal with such competition, Switzerland has foregone the approach -- adopted by a number of OECD countries (see Carey *et al.* 1999) -- of shifting the tax burden on to the relatively immobile bases, labour and consumption, and away from capital. Compared with many Continental European countries, Switzerland taxes capital rather heavily in relation to the burdens imposed on labour and consumption, and this overall structure seems to be fairly stable across time. Normally, this approach could make the Swiss tax system vulnerable to base erosion in the more mobile segments of its capital tax base. However, the particular structure of capital taxation makes it less vulnerable to competition. The effective tax burden on household financial capital is rather low, principally owing to the favourable tax treatment of the earnings of pension funds and of funds invested in life insurance. As a result, much of the household tax burden is focused, directly or indirectly, on physical property. Indeed, over a third of capital taxation comes from various forms of property taxation (inheritance, real estate, various types of wealth tax, etc.) (Table 19). The (estimated) taxes on the capital income of the self-employed sector also account for a significant share of capital taxation, as do the taxes on corporations (including income, wealth and other business and property taxes). The corporate tax base might be subject to some vulnerability due to international mobility, while the self-employed sector's mobility does not, as yet, appear to be very high. Thus, some elements of the Swiss tax structure seem fairly robust to international competition (in particular, the emphasis on direct and indirect taxation of property), while others seem less so (the large share of corporate taxes in overall revenues).⁵²

68. Switzerland avoids double taxation not by granting tax credits but by applying the exemption method according to Article 23A OECD-Model. This means that profits realised by a foreign subsidiary or attributed to a foreign permanent establishment are not subject to corporate tax in Switzerland, whether or not they are repatriated by the Swiss parent company or head office. However, should Swiss companies take advantage of foreign tax havens by transferring to them profits that would otherwise normally be taxable in Switzerland, then a profit adjustment would normally need to be made in the assessment procedure for the relevant commercial year. If -- for any reason -- such an adjustment has not been made, there still remains the possibility for the tax authorities to refuse the participation exemption when those profits are distributed from the tax haven subsidiary to its Swiss parent company or in case the participation is sold and gives rise to a capital gain.

69. There is nevertheless a risk that income is unduly reinvested abroad rather than being reinvested at home. Therefore, appropriate rules on compulsory distribution might be envisaged to impede such abuses. Although it is generally thought in Switzerland that there is no need for Controlled Foreign Corporation (CFC) legislation with respect to active enterprises, whether located in a tax haven or not, it may be worth considering whether the requirements that entitle companies to the participation exemption should be made more restrictive in respect of tax haven subsidiaries.

52. The application of the stamp tax to certain financial transactions is another vulnerable capital tax. Switzerland has been gradually lowering the stamp tax, no doubt due to competitive pressures from abroad.

Switzerland as a destination for some internationally mobile tax bases

70. Switzerland's "régime forfaitaire" may make it an attractive destination for some foreign individuals. Expatriates not exercising any gainful activity in Switzerland can apply to be taxed on their assumed living expenses (including the cost of living of their families). This tax replaces the ordinary income and net wealth taxes (at all levels of government) and is subject to certain limits.⁵³ The canton authorities also have some discretion in determining the annual living expenses of the taxpayer. In the whole country, 2 730 foreign taxpayers have presently applied for the "régime forfaitaire"; this regime is often the last resort for tax authorities to overcome practical difficulties due to the lack of information on possibly wealthy foreign taxpayers. The regime may explain why some cantons manage to attract wealthy foreign individuals; three cantons exceptionally tax at special rates capital income from Swiss- or foreign sources for which benefits under a double taxation treaty have been claimed (these special rates rely on clear legal bases). Other factors (quality of life, security, access to transport facilities, local language and climate) are also important influences on expatriates' location decisions.

71. Another issue for international taxation arises from the interaction of Swiss tax law with other countries' tax practices and with the long-standing Swiss tradition of bank secrecy. The general rule in Switzerland is that Swiss-source capital income is subject to a 35 per cent withholding tax, which is refunded to resident taxpayers if they report the respective income and investments in their tax returns. Non-resident investors have to submit a claim for refund, duly certified by the tax authorities of their countries of residence. Depending on the relevant Double Taxation Treaty, the Swiss withholding tax will be refunded. Moreover, as to the non-refundable part of the Swiss withholding tax, the beneficial owners can claim a credit against the income tax in their residence country.⁵⁴ If a non-resident decides not to file a claim for refund so as to avoid declaring income to his residence country, he loses the 35 per cent withholding tax.⁵⁵ As noted above, in the discussion of enforcement practices, tax evasion is not a crime in Switzerland and the right of tax and law enforcement officials to extract bank information, for their own tax purposes or for a treaty partner, on matters that do not relate to a suspected crime is extremely limited.

72. Non-residents can avoid all withholding taxes by setting up fiduciary accounts in Switzerland through which their funds are invested abroad. This may be particularly advantageous for non-residents unwilling to be taxed on capital income in their countries of residence for the following reasons. First, their funds generally are invested in countries that do not levy a withholding tax on bank deposits belonging to non-residents.⁵⁶ Second, Switzerland does not impose a withholding tax on the income because it is not Swiss-source. Third, Switzerland's tradition of strict privacy -- which is laid down in the Constitution -- and bank secrecy protect the identity of the beneficial owner of the account from disclosure to the tax authorities of the beneficial owner's country of residence. It is the combination of these three factors that makes tax evasion through Swiss fiduciary accounts attractive to non-residents. This scheme allows a non-resident desiring to evade taxes to be reasonably certain that a failure to declare the invested capital and/or the interest thereon to his country of residence will go undetected.

53. The tax may not be lower than the sum of *i*) ordinary income tax computed on gross income from certain Swiss sources and foreign income for which the taxpayers has applied for a refund, reduction or exemption for foreign taxes under a tax treaty and *ii*) the ordinary net wealth tax computed on gross wealth. Swiss nationals who have been absent from Switzerland for at least ten years can also apply to be taxed under this regime, but it only applies for a year after their return.

54. As it turns out, few non-resident investors ask to qualify for the reduced treaty rates. For some non-residents, this is because they are unwilling to provide the required papers.

55. The income that a non-resident may seek to avoid declaring to his resident country may include the capital deposited in the account, as well as the income earned on that capital.

56. Swiss intermediary banks never act as principals.

73. Finally, there are two cantonal (not federal) corporate tax regimes that can function as tax shelters. In particular, in these cantons, administration companies are not normally taxed on capital income that does not qualify as participation income, except if the country of source requires -- by virtue of the respective Double Taxation Treaty -- full taxation in Switzerland. (As noted above, capital income that does qualify as participation income is not taxed in Switzerland as it is an exemption country.) Administration companies may also benefit from the cantonal global exemption method as regards foreign permanent establishments. Consequently, profits that are attributable to foreign permanent establishments are not taxable in Switzerland. Cantons retain some discretion in determining exactly what these companies will be taxed on. This makes certain cantons attractive places for such companies to locate.⁵⁷ The tax status of holding companies is similarly advantageous.⁵⁸

74. Thus, under certain circumstances, the tax policies of Switzerland (or of certain cantons) do attract mobile tax bases from abroad. The interaction of bank secrecy and international tax enforcement is now being discussed in several forums, including the OECD. What is clear is that, in Switzerland, this practice stems from a long legal tradition that places high value on individual privacy. It turns out that, for reasons discussed elsewhere in this chapter⁵⁹ the legal and information apparatus available to the Swiss tax authorities does not appear to give rise to major compliance problems in Switzerland. On the other hand, it is also clear that access to information is an essential ingredient for effective tax enforcement and that, as globalisation and technology continue to advance, it will become increasingly important. Thus, Switzerland may find itself under continued pressure to provide more complete access to information to foreign tax authorities. The other major base mobility issue discussed here -- special tax regimes for holding and administration companies -- is closely linked to fiscal control of cantons. While harmonisation has the merit that domestic tax competition between cantons and -- within cantons -- between municipalities just depends on their respective tax rates, some cantons take a competitive approach at the international level. The practices of some cantons are sometimes considered to be not only competitive but to go beyond the practices of some comparable countries.

Concluding remarks

75. The decentralised federal structure and the widespread use of direct democracy shape Switzerland's tax system. Direct democracy, together with private funding of the second pillar of the retirement income system, have constrained the overall tax burden to a moderate level compared with other OECD countries. However, decentralisation has circumscribed the scope for tax reform, notably because there would be winners and losers amongst governments. For example, a shift from income taxation to

57. A variant on this tax treatment is for the so-called "domiciliary company". These are companies that are involved only in such activities as managing intellectual property, personal fortunes, some financial operations, and billing. Normally, such companies are supposed to be foreign-controlled and should have no personnel or offices in Switzerland. In the limited number of cantons where such a tax statute still exists, these companies benefit from a complete exoneration from cantonal taxes. Under the tax harmonisation law, all cantons must eliminate this status from their tax codes by the end of the year 2000. Source: Coopers and Lybrand (1995).

58. Holding companies are almost completely exempt from cantonal income tax if they qualify. To qualify for this status, a company's participation in other companies or the income derived therefrom must represent at least two-thirds of the company's assets or income. Also the holding company's main purpose must be the long-term management of participation and it must have no commercial activities in Switzerland. If these conditions apply, the company is only subject to normal income taxation on income from immovable property in Switzerland. Source: *European Tax Handbook* (1998).

59. These reasons include: *i*) a moderate overall tax burden; *ii*) high tax morale and perceived legitimacy of government tax and spending programmes; *iii*) a structure of capital taxation that does not rely heavily on taxation of financial income but that skewed toward corporate and property taxation; *iv*) extensive use of withholding taxes when individual financial income is subject to tax.

VAT would be difficult to implement because the federal government would receive the VAT revenue while lower levels of government would lose income tax revenue and face increased expenditures for social assistance. While, in principle, it should be possible to negotiate a deal that would be satisfactory to all governments, it would, in practice, probably be difficult in view of the large number of parties involved. This has created a situation in which governments in some instances have maintained taxes for their capacity to generate revenues, with the effects on economic efficiency and/or equity being a secondary consideration. This is particularly so in the area of capital taxation, notable examples being the taxes on personal net wealth and on corporate net worth.

76. Bearing in mind these constraints, the tax system generally measures up quite well in terms of efficiency and equity. Income tax bases are broad, labour tax wedges do not present a serious obstacle to employment and VAT is highly productive by international standards. Significant progress has been made towards harmonising direct tax bases and administration arrangements are streamlined so that taxpayers are not required to submit different tax returns to each of the three levels of government that levies income tax. Moreover, the tax system is quite progressive by international comparison. Nevertheless, there is substantial scope to improve the tax system, even within the constraints of the decentralised federal structure. Priorities for tax reform include: reducing the privileges accorded to individuals for their savings, for example with life insurance companies (pillar 3b); greater limitation of personal interest deductions than recently approved by Parliament; the replacement of cantons' existing corporate taxes with a flat-rate tax on corporate profits; and a greater use of environmental taxes. Switzerland should further consider whether additional clauses should be included either in its internal legislation or in its double tax treaties in order to be more in line with international standards.

Table 1. **Tax revenues by level of government**¹
Share of total revenues, 1996

	Federal or central government	Social security funds	State and local governments
United States	43.0	24.7	32.3
Japan	38.8	36.5	24.7
Germany	29.5	40.6	29.3
France	45.5	43.9	10.3
Italy	61.5	34.1	5.0
United Kingdom	76.3	17.3	3.8
Canada	40.0	16.3	43.7
Australia	77.5	0.0	22.5
Austria	50.5	28.2	20.9
Belgium	35.0	34.9	27.9
Czech Republic	46.2	41.9	13.5
Denmark	65.4	3.1	31.1
Finland	50.2	26.9	22.6
Greece	69.0	29.1	1.3
Hungary	59.6	30.6	9.8
Iceland	80.3	0.0	19.7
Ireland	84.4	12.0	2.3
Korea	71.7	9.1	19.2
Luxembourg	66.9	26.1	6.7
Mexico	81.1	15.6	..
Netherlands	56.1	40.1	2.9
New Zealand	94.5	0.0	5.5
Norway	59.5	22.1	18.4
Poland	60.1	31.2	8.7
Portugal	66.7	27.1	5.7
Spain	50.7	35.5	13.4
Sweden	45.4	23.0	31.6
Switzerland ²	27.4	37.4	35.2
Turkey	71.7	15.8	12.5

1. Tax revenues are allocated to the level of government that ultimately receives them, which need not be the level of government where they are collected.

2. Social security contributions for Switzerland include all private medical insurance premiums. Excluding such premiums that are voluntary, social security contributions were 34.6 per cent of total tax revenues.

Source : OECD (1998a), *Revenue Statistics*.

Table 2. Trends in government social spending
Per cent of GDP

	Unemployment ¹		Disability ²		Health ³		Pension ⁴		Total insurance	
	1995	Change 1985-95	1995	Change 1985-95	1995	Change 1985-95	1995	Change 1985-95	1995	Change 1985-95
United States	0.6	0.0	1.0	0.3	6.6	2.1	6.3	0.1	14.5	2.5
Japan	0.5	0.2	0.5	0.0	5.9	1.0	6.3	1.4	13.2	2.6
Germany	3.7	1.5	1.4	0.1	9.2	1.2	10.9	0.0	25.2	2.8
France	3.1	0.0	1.4	-0.4	9.3	1.6	12.2	1.3	26.1	2.5
Italy	2.0	0.2	1.9	0.1	5.7	-0.2	13.6	2.3	23.2	2.5
United Kingdom	1.4	-1.2	2.9	1.5	6.7	0.9	7.4	0.2	18.4	1.3
Canada ⁵	1.9	-0.7	1.0	0.1	6.7	0.4	4.9	1.0	14.4	0.9
Australia	2.1	0.4	1.2	0.3	6.1	0.3	3.3	-0.3	12.8	0.6
Austria	1.8	0.6	1.8	0.0	6.4	0.9	13.4	0.8	23.4	2.3
Belgium	4.2	-0.6	2.2	-0.9	7.5	0.8	10.3	0.4	24.2	-0.3
Czech Republic (1990-1995)	0.3	--	1.5	0.1	8.7	1.7	6.4	-0.5	16.8	1.6
Denmark	6.6	1.2	2.3	0.4	9.0	-0.2	7.8	1.8	25.6	3.2
Finland	5.6	3.3	4.0	0.9	7.9	0.5	9.1	1.6	26.6	6.3
Greece (1993)	0.7	0.2	1.9	0.0	3.9	0.5	10.1	0.3	16.6	0.9
Iceland	0.8	--	1.6	--	9.0	--	4.2	--	15.6	--
Ireland	4.4	-0.7	0.9	0.1	6.6	-1.9	4.6	-1.3	16.4	-3.8
Korea (1990-1995)	0.1	0.0	0.3	0.1	2.0	0.3	1.4	0.6	3.8	0.9
Mexico (1990-1995)	0.0	--	0.0	0.0	2.9	1.1	0.4	0.1	3.3	1.3
Netherlands	4.1	-0.1	4.1	-0.2	9.4	0.5	7.8	-0.1	25.4	0.0
New Zealand	1.9	0.3	1.7	0.6	6.6	1.4	5.8	-2.0	15.9	0.3
Norway	2.4	1.3	2.7	0.6	11.4	2.9	6.2	1.0	22.7	5.9
Portugal	1.8	1.5	1.8	0.0	5.8	1.8	7.7	3.1	17.1	6.4
Spain	3.3	0.1	1.4	-0.4	7.1	1.7	9.2	1.4	21.0	2.8
Sweden	4.7	1.6	2.8	0.6	10.4	-1.6	9.0	0.9	26.9	1.5
Switzerland	1.6	1.2	2.5	0.6	7.4	2.2	7.1	0.8	18.6	4.8
Turkey	0.0	--	0.1	0.1	2.4	1.2	3.7	1.9	6.3	3.2
Total of above countries ⁶	2.7	0.5	1.9	0.2	7.5	0.8	8.2	0.6	20.2	2.2
Total of EU countries	3.4	0.5	2.2	0.1	7.5	0.5	9.5	0.9	22.6	2.0

1. Includes active labour market programmes.

2. Includes occupational injury and disease.

3. Includes services for the elderly and disabled people and sickness benefits.

4. Includes survivors' pension or benefits.

5. From 1990 onwards family services are included in another category of social programmes.

6. Excludes Iceland, Korea, Mexico and Turkey.

Note : The last year of the period covered is 1995 unless otherwise stated.

Source : OECD, Social expenditure database, 1980-1996.

Table 2. (continued) **Trends in government social spending**

Per cent of GDP

	Family services ¹		Housing services		Other contingencies		Total assistance		Total social spending ²	
	1995	Change 1985-95	1995	Change 1985-95	1995	Change 1985-95	1995	Change 1985-95	1995	Change 1985-95
United States	0.6	0.0	--	--	0.6	0.3	1.3	0.3	15.8	2.8
Japan	0.4	0.0	--	--	0.2	0.0	0.6	-0.1	13.8	2.6
Germany	2.0	0.2	0.2	0.0	0.6	0.2	2.8	0.4	28.0	3.3
France	2.6	-0.2	0.9	0.2	0.5	--	4.0	0.5	30.1	3.0
Italy	0.5	-0.4	0.0	0.0	--	--	0.5	-0.4	23.7	2.1
United Kingdom	2.4	0.1	1.9	0.6	0.3	-0.6	4.5	0.0	22.9	1.3
Canada ³	0.8	0.1	--	--	3.1	0.7	3.9	0.8	18.3	1.7
Australia	2.5	1.3	0.2	-0.2	0.1	-0.1	2.8	1.0	15.6	1.6
Austria	2.4	-0.4	0.1	-0.1	0.3	0.0	2.8	-0.5	26.2	1.8
Belgium	2.3	-0.4	--	--	0.6	0.3	2.9	0.0	27.1	-0.4
Czech Republic (1990-1995)	2.0	-0.8	0.0	--	0.4	--	2.4	-0.4	19.2	1.3
Denmark	4.0	1.3	0.8	0.3	1.6	0.8	6.5	2.5	32.1	5.7
Finland	4.2	1.6	0.5	0.3	0.7	0.3	5.3	2.2	32.0	8.5
Greece (1993)	0.1	-0.2	0.1	-0.1	--	--	0.2	-0.4	16.8	0.6
Iceland	2.4	--	0.1	--	0.5	--	3.1	--	18.6	--
Ireland	1.7	0.2	0.6	-0.3	0.7	0.4	3.0	0.2	19.4	-3.5
Korea (1990-1995)	0.1	0.0	--	--	0.1	-0.1	0.2	0.0	4.0	0.9
Mexico (1990-1995)	0.1	--	0.0	0.0	0.2	0.2	0.3	0.3	3.7	1.6
Netherlands	1.4	-0.8	0.3	0.0	0.7	-0.3	2.4	-1.1	27.8	-1.1
New Zealand	2.2	-0.2	0.6	0.5	0.2	-0.1	2.9	0.1	18.9	0.5
Norway	3.7	1.8	0.2	0.0	0.9	0.1	4.9	2.0	27.6	7.9
Portugal	1.0	0.2	0.0	0.0	0.1	0.0	1.1	0.3	18.3	6.7
Spain	0.3	0.1	0.1	0.1	0.1	0.0	0.5	0.2	21.5	3.0
Sweden	3.9	-0.5	1.2	0.5	1.0	0.4	6.1	0.4	33.0	1.9
Switzerland	1.1	0.0	0.1	--	1.2	0.9	2.4	1.1	21.0	5.8
Turkey	0.3	-0.4	--	--	0.2	0.1	0.5	-0.2	6.8	3.0
Total of above countries ⁴	1.9	0.1	0.4	0.1	0.7	0.2	2.9	0.4	23.1	2.6
Total of EU countries	2.1	0.1	0.5	0.1	0.6	0.1	3.0	0.3	25.6	2.3

1. Includes family cash benefits.

2. Sum of total assurance and total assistance.

3. From 1990 onwards family services are included in another category of social programmes.

4. Excludes Iceland, Korea, Mexico and Turkey.

Note : The last year of the period covered is 1995 unless otherwise stated.

Source : OECD, Social expenditure database, 1980-1996.

Table 3. Total tax revenues

Per cent of GDP

	1980-85	1986-90	1991-96	1990	1991	1992	1993	1994	1995	1996
United States	26.4	26.7	27.4	26.7	26.8	26.7	27.0	27.5	27.9	28.5
Japan	26.7	30.1	29.0	31.3	30.8	29.2	29.1	27.8	28.5	28.4
Germany	37.8	37.7	38.8	36.7	38.2	38.9	39.0	39.2	39.2	38.1
France	43.2	43.9	44.3	43.7	43.9	43.7	43.9	44.1	44.6	45.7
Italy	33.6	37.2	42.0	39.2	39.7	42.1	43.8	41.7	41.3	43.2
United Kingdom	37.1	36.8	35.1	36.5	35.6	35.1	33.5	34.5	35.6	36.0
Canada	33.2	34.9	36.2	36.0	36.6	36.2	35.6	35.9	36.0	36.8
Australia	29.2	30.7	29.5	30.6	28.9	28.4	28.6	29.6	30.4	31.1
Austria	41.0	41.7	42.9	41.0	41.5	43.0	43.4	43.3	42.3	44.0
Belgium	45.4	45.1	45.2	44.0	44.1	44.3	44.9	46.0	46.0	46.0
Czech Republic	--	--	42.1	--	--	--	43.7	42.8	41.5	40.5
Denmark	46.4	50.7	50.7	48.7	48.8	49.2	50.4	51.9	51.4	52.2
Finland	38.5	42.9	46.8	45.4	46.9	46.8	45.4	47.6	46.1	48.2
Greece	32.7	35.7	39.6	37.0	37.6	39.0	39.5	40.2	40.8	40.6
Hungary	--	--	44.3	--	45.9	45.9	45.8	44.7	43.3	40.3
Iceland	29.4	30.5	31.5	31.4	31.4	32.2	31.3	30.9	31.2	32.3
Ireland	35.4	36.6	34.9	34.8	35.2	35.5	35.4	36.1	33.7	33.7
Korea	17.4	17.4	21.1	19.0	18.8	19.8	20.7	21.5	22.3	23.2
Luxembourg	44.8	43.4	43.6	43.4	42.6	41.8	43.9	44.3	44.1	44.7
Mexico	16.7	16.9	17.1	17.3	17.3	17.6	17.7	17.2	16.6	16.3
Netherlands	44.8	45.9	45.5	44.6	47.2	46.8	47.5	44.7	43.8	43.3
New Zealand	33.3	36.9	36.9	38.0	36.6	36.9	36.9	37.3	37.9	35.8
Norway	43.0	43.1	41.1	41.8	41.8	41.0	40.1	41.3	41.5	41.1
Poland	--	--	41.0	--	37.2	38.3	42.5	43.2	42.7	42.1
Portugal	27.2	29.6	33.8	30.9	32.2	34.4	32.4	33.8	34.9	34.9
Spain	26.5	32.8	34.5	34.2	34.5	35.6	34.7	34.7	34.0	33.7
Sweden	49.6	54.7	51.2	55.6	53.7	51.0	50.1	50.8	49.5	52.0
Switzerland	30.0	31.4	32.5	30.9	30.6	31.2	32.2	33.0	33.5	34.7
Turkey	17.1	18.6	22.7	20.0	21.0	22.4	22.7	22.2	22.6	25.4
Average OECD	34.1	35.8	37.3	36.1	36.6	36.9	37.3	37.5	37.3	37.7
Average G7	34.0	35.3	36.1	35.7	36.0	36.0	36.0	35.8	36.1	36.7
Average EU (15)	38.9	41.0	41.9	41.1	41.4	41.8	41.9	42.2	41.8	42.4

Source: OECD (1998a), Revenue Statistics and OECD Secretariat.

Table 4. The level and structure of taxation by type
Per cent of GDP

	1980						1996					
	Corporate income taxes	Individual income tax	Social security and payroll taxes	Consumption taxes ¹	Other taxes, including property taxes	Total	Corporate income taxes	Individual income tax	Social security and payroll taxes	Consumption taxes	Other taxes, including property taxes	Total
United States	2.9	10.5	5.9	4.7	2.9	26.9	2.7	10.7	7.0	4.9	3.1	28.5
Japan	5.5	6.2	7.4	3.8	2.1	25.1	4.7	5.7	10.4	4.4	3.3	28.4
Germany	2.1	11.3	13.2	10.3	1.3	38.1	1.4	9.4	15.5	10.6	1.2	38.1
France	2.1	5.4	18.7	12.6	2.7	41.6	1.7	6.4	20.8	12.4	4.3	45.7
Italy	2.4	7.0	11.7	7.5	1.1	29.7	4.0	10.8	14.8	10.6	2.3	42.6
United Kingdom	2.9	10.8	7.4	10.3	4.2	35.5	3.8	9.3	6.2	12.7	3.9	35.8
Canada	3.7	10.9	3.4	9.9	3.3	31.2	3.3	13.9	6.0	8.7	4.2	36.0
Australia	3.4	12.5	1.4	8.8	2.2	28.4	4.7	12.8	2.1	8.7	2.8	31.1
Austria	1.4	9.3	15.3	12.6	1.5	40.2	2.1	9.2	18.1	12.5	1.1	43.0
Belgium	2.5	15.4	13.3	11.4	1.1	43.6	3.1	14.3	14.9	11.6	1.2	45.1
Czech Republic	--	--	--	--	--	--	4.2	5.3	17.0	13.5	0.6	40.5
Denmark	1.5	23.5	0.8	17.0	2.6	45.5	2.4	27.8	1.9	17.1	1.8	51.0
Finland	1.4	14.3	7.2	12.9	0.7	36.6	3.2	16.9	12.4	14.5	1.2	48.2
Greece	1.1	4.4	10.2	10.9	1.4	27.9	2.6	5.0	12.8	17.4	1.4	39.1
Hungary	--	--	--	--	--	--	1.9	7.1	13.7	16.8	0.8	40.2
Iceland	0.7	6.8	1.7	15.9	2.5	27.6	0.9	10.4	2.8	15.1	2.7	31.8
Ireland	1.5	10.4	4.7	14.1	1.7	32.4	3.2	10.5	4.9	13.3	1.6	33.6
Korea	1.9	2.0	0.3	9.6	1.8	15.7	2.7	4.2	2.2	10.2	3.9	23.2
Luxembourg	6.9	11.5	12.5	8.7	2.4	41.9	7.2	9.8	11.9	12.4	3.4	44.7
Mexico	2.7	2.0	2.4	4.8	0.6	12.6	2.3	1.8	2.7	4.8	0.6	12.3
Netherlands	3.0	11.9	17.2	11.4	1.7	45.1	4.1	7.6	17.1	12.3	2.1	43.2
New Zealand	2.6	20.3	0.0	7.4	2.6	32.9	3.5	15.6	0.3	12.3	2.0	33.8
Norway	5.7	12.1	9.0	15.0	0.7	42.5	4.3	10.7	9.6	15.5	0.9	40.9
Poland	--	--	--	--	--	--	3.1	9.3	13.4	15.0	1.3	42.1
Portugal	--	--	--	10.4	0.8	11.2	3.3	6.6	9.0	14.0	1.1	33.9
Spain	1.2	4.9	11.6	4.8	1.1	23.7	2.0	7.7	12.1	9.6	2.0	33.4
Sweden	1.2	20.0	15.3	11.7	0.5	48.8	2.9	18.4	16.8	11.8	2.0	51.9
Switzerland²	1.7	10.4	9.0	5.7	2.1	28.9	1.9	11.1	13.0	6.1	2.4	34.5
Turkey	0.7	7.8	2.5	4.6	1.5	17.2	1.5	5.2	4.0	9.7	5.0	25.4
Average OECD	2.5	10.5	8.1	9.9	1.8	32.0	3.1	10.1	10.1	11.7	2.2	37.2
Average G7	3.1	8.9	9.7	8.4	2.5	32.6	3.1	9.5	11.5	9.2	3.2	36.4
Average EU (15)	2.2	11.4	11.4	11.1	1.7	36.1	3.1	11.3	12.6	12.9	2.0	42.0
Dispersion OECD												
Range (maximum – minimum)	6.1	21.5	18.7	13.2	3.7	37.5	6.3	25.9	20.4	13.0	4.5	39.6
Standard Deviation	1.6	5.4	5.7	3.7	0.9	10.4	1.3	5.2	5.8	3.6	1.2	8.7
Coefficient of variation	0.62	0.52	0.70	0.37	0.50	0.33	0.42	0.51	0.58	0.31	0.56	0.23

1. Consumption taxes equal total taxes on goods and services less "profits of fiscal monopolies" and "other taxes".

2. Social security contributions and payroll tax figures are unadjusted for voluntary medical insurance premiums and exclude other voluntary contributions to government (similar to payroll taxes).

Adjusted figures for 1980, 1990 and 1996 are respectively 7.1, 7.2 and 12.5 per cent. Compulsory contributions were introduced in 1996.

Source: OECD (1998a), *Revenue Statistics*.

Table 5. The structure of taxation by type of tax
Share of total tax revenues

	1980					1996				
	Corporate income taxes	Individual income tax	Social security and payroll taxes	Consumption taxes	Other taxes, including property taxes	Corporate income taxes	Individual income tax	Social security and payroll taxes	Consumption taxes	Other taxes, including property taxes
United States	10.8	9.1	21.9	17.6	10.7	9.6	37.6	24.7	17.1	11.0
Japan	21.8	24.3	29.1	15.0	8.4	16.4	20.2	36.5	15.4	11.6
Germany	5.5	29.6	34.5	27.0	3.3	3.8	24.7	40.6	27.8	3.0
France	5.1	12.9	44.9	30.3	6.6	3.8	14.1	45.4	27.2	9.4
Italy	7.8	23.1	38.7	24.7	3.7	9.2	25.1	34.3	24.5	5.4
United Kingdom	8.2	30.7	21.0	29.2	12.0	10.5	25.9	17.3	35.2	10.7
Canada	11.6	34.1	10.5	30.9	10.3	8.9	37.7	16.3	23.6	11.5
Australia	12.2	44.0	5.0	31.1	7.8	15.0	41.2	6.7	28.0	9.0
Austria	3.5	23.2	38.0	31.3	3.8	4.7	20.9	41.1	28.4	2.5
Belgium	5.7	35.2	30.4	26.1	2.4	6.8	31.0	32.3	25.3	2.6
Czech Republic	..	..	..	..	..	10.3	13.1	42.0	33.3	1.4
Denmark	3.2	51.8	1.8	37.4	5.8	4.6	53.2	3.6	32.7	3.5
Finland	3.9	38.8	19.6	35.0	2.0	6.7	35.0	25.8	30.0	2.5
Greece	3.8	14.9	34.7	36.9	4.7	6.3	12.4	31.4	42.8	3.4
Hungary	..	..	..	..	..	4.6	17.5	33.9	41.7	2.1
Iceland	2.5	23.1	6.0	54.4	8.5	2.7	32.2	8.6	46.6	8.2
Ireland	4.5	32.0	14.5	43.4	5.3	9.6	31.3	14.6	39.6	4.8
Korea	11.0	11.5	1.6	55.0	10.3	11.6	18.0	9.4	43.7	16.9
Luxembourg	16.4	27.3	29.7	20.7	5.7	16.0	22.0	26.6	27.7	7.6
Mexico	17.1	12.7	15.2	29.8	3.8	13.9	11.2	16.9	29.7	3.9
Netherlands	6.6	26.3	38.1	25.2	3.9	9.5	17.5	39.6	28.5	4.8
New Zealand	7.8	61.6	0.0	22.3	7.9	9.8	43.5	1.0	34.5	5.6
Norway	13.3	28.4	21.1	35.1	1.7	10.5	26.0	23.3	37.6	2.1
Poland	..	..	..	..	..	7.4	22.0	31.8	35.7	3.0
Portugal	..	..	32.1	41.5	3.3	9.5	18.9	25.7	40.0	3.2
Spain	5.1	20.4	48.6	20.1	4.8	5.9	23.0	35.9	28.6	5.9
Sweden	2.5	41.0	31.4	23.9	1.1	5.6	35.3	32.4	22.8	3.9
Switzerland¹	5.8	35.6	30.9	19.5	7.3	5.6	32.0	37.4	17.5	7.0
Turkey	4.1	43.5	14.0	25.6	8.5	5.7	20.5	15.8	38.3	19.8
Average OECD	8.0	30.6	23.6	30.3	5.9	8.4	26.3	25.9	31.2	6.4
Average G7	10.1	27.7	28.6	25.0	7.9	8.9	26.5	30.7	24.4	8.9
Average EU (15)	5.8	29.1	30.5	30.2	4.6	7.5	26.0	29.8	30.7	4.9
Dispersion OECD										
Range (maximum – minimum)	19.4	50.2	48.6	40.0	10.9	13.7	42.0	44.5	31.2	18.4
Standard Deviation	5.1	12.3	14.0	10.1	3.0	3.7	10.3	12.6	8.1	4.6
Coefficient of variation	0.64	0.40	0.59	0.33	0.52	0.44	0.39	0.49	0.26	0.71

1. Consumption taxes equal total taxes on goods and services less "profits of fiscal monopolies" and "other taxes".

2. Social security contributions and payroll tax figures are unadjusted for voluntary medical insurance premiums and exclude other voluntary contributions to government (similar to payroll taxes). Adjusted figures for 1980, 1990 and 1996 are respectively 24.3, 23.3 and 36.1 per cent. Basic medical insurance became compulsory in 1996.

Source: OECD (1998a), *Revenue Statistics*.

Table 6. Tax revenues of the Confederation, the cantons and the communes¹
1996, percentages

	Confederation	26 cantons	About 3 000 communes	Total
Total tax revenues (SF million)	34 159.0	24 949.0	19 486.6	78 594.6
(per cent of total tax revenues)	43.5	31.7	24.8	100
Personal income tax, incl. capital gains	17.7	66.7	76.6	47.9
Taxes on personal property and wealth	..	19.4	11.6	9.0
Wealth taxes	..	6.7	7.6	4.0
Inheritance and gift tax	..	3.9	0.6	1.4
Tax on sale of real-estate property	..	2.2	1.1	1.0
Property tax	..	0.6	2.4	0.8
Motor vehicles	..	6.0	0.0	1.9
Corporate taxes	8.5	13.6	11.4	10.8
On profits	7.5	10.1	8.6	8.6
On net worth	1.0	3.5	2.9	2.3
Consumption and excise taxes	52.5	0.1	0.1	22.9
VAT	35.3	..	..	15.3
Tobacco, liquors and beer	4.4	..	..	1.9
Mineral oils	12.8	..	..	5.6
Other taxes	21.2	0.2	0.2	9.3
Withholding tax	9.7	..	..	4.2
Financial and insurance stamp duty	5.8	..	..	2.5
Customs duties	4.0	..	..	1.7
Road taxes	1.3	..	..	0.6
Other	0.4	0.2	0.2	0.3
Total	100	100	100	100

1. Excludes social security contributions. Percentages refer to total tax revenue at the top of each column.

Source: Administration fédérale des contributions, *Finances Publiques en Suisse 1996*, Berne 1998 and OECD Secretariat.

Table 7. Marginal tax rates combining all levels of government, for the single taxpayer

Gross income ('000 francs)	Minimum	Approximate Swiss average	Maximum
15-20	0	10	15
50-60	14	22	26
100-150	22	32	37
200+	25	38	46

Source: Administration fédérale des contributions, *Finances Publiques en Suisse 1996*, Berne 1998 and OECD Secretariat.

Table 8. Productivity of value added taxes¹

Per cent, 1996

	Value added taxes	Standard rates	Effective VAT ²	Effective rate over
	revenues over GDP	A	B	standard rate
				B/A
United States	n.a.	n.a.	n.a.	n.a.
Japan	1.5	3.0	2.6	86.1
Germany	6.7	15.0	11.6	77.0
France	7.9	20.6	14.3	69.4
Italy	5.6	19.0	9.6	50.4
United Kingdom	7.0	17.5	10.6	60.9
Canada	2.6	7.0	4.4	62.3
Australia	n.a.	n.a.	n.a.	n.a.
Austria	8.4	20.0	16.2	80.9
Belgium	7.0	21.0	12.5	59.4
Czech Republic	7.2	..	..	..
Denmark	10.2	25.0	22.1	88.4
Finland	8.2	22.0	17.0	77.2
Greece	9.2	18.0	10.9	60.8
Hungary	7.5	..	..	..
Iceland	9.4	24.5	17.1	70.0
Ireland	7.0	21.0	15.5	73.8
Korea	4.3	10.0	..	..
Luxembourg	6.7	15.0	..	..
Mexico	2.9	15.0	4.4	29.2
Netherlands	7.0	17.5	13.0	74.2
New Zealand ³	8.5	12.5	15.3	122.7
Norway	8.6	23.0	21.2	92.1
Poland	7.8	..	..	..
Portugal	8.0	17.0	13.5	79.1
Spain	5.5	16.0	9.4	58.8
Sweden	7.0	25.0	14.1	56.2
Switzerland	3.3	6.5	5.5	85.2
Turkey	6.0	15.0	9.2	61.3
OECD average ⁴	6.7	16.9	12.3	71.6
G7 average ⁴	5.2	13.7	8.8	67.7
EU average ⁴	7.6	19.5	13.7	68.8
Dispersion OECD				
Range (maximum-minimum)	8.7	22.0	19.5	93.5
Standard deviation	2.2	5.9	5.2	18.5
Coefficient of variation	0.3	0.3	0.4	0.3

Note: n.a. is not applicable; .. is not available.

1. VAT productivity is defined as effective VAT rate divided by the standard rate.

2. The effective VAT rate is VAT revenue divided by base (*i.e.* consumption).

3. The general sales tax at standard rate is levied on 60 per cent of the value of the supply for long-term stay in a commercial dwelling which may partly explain why the effective VAT rate exceeds the standard rate and produces productivity figures above 100 per cent.

4. Simple average over available countries.

Source: OECD (1998a), *Revenue Statistics*; (1997) *Consumption Tax Trends* and OECD Secretariat.

Table 9. Trends in value added taxes -- tax parameters

	Year VAT introduced	Initial standard rate	1996 standard rate	Zero rated goods	Lower rated goods
United States	None	none	None	..	..
Japan	1989	3	5	None	None
Germany	1968	10	15	None	Books, food, newspapers, transport
France	1964	20	20.6	None	Medicine, equipment for the disabled, books, hotels, entertainment, authors' rights, museums, transport, travel, passenger travel, accommodation, agriculture, books, catering, food, newspapers and water
Italy	1973	12	19	Books, newspapers, scrap iron, recycled paper	Food, medicine, telecom, weekly publications and accommodation
United Kingdom	1973	10	17.5	Children's clothing, food, passenger transport, books, newspapers, domestic sewage and water, prescription drugs, medicine, certain supplies for the disabled	..
Canada	1991	7	7	Medicine, basic groceries, exports, certain financial services, certain agricultural and fishing products, medical devices, international travel and transportation services, agriculture, precious metals	None
Australia	None	none	None	..	..
Austria	1973	16	20	None	Agriculture, books, food, forestry, hospitals, newspapers, art, culture, letting transport, wine
Belgium	1971	18	21	Cars for handicapped, newspapers and certain weeklies	Agriculture, original art, clothing, food, coal and coke, gold
Czech Republic	n.a.	n.a.	n.a.	not available	..
Denmark	1967	10	25	Newspapers	None
Finland	1969	11.1	22	Newspaper and magazine subscriptions, some printing services, vessels and international transport	Food, non-alcoholic drinks, animal feed, medicine, books, passenger travel, accommodation, TV licenses, admission to cultural entertainment, sporting events and to the cinema
Greece	1987	16	18	None	Books, culture, food, medicine newspapers
Iceland	1989	22	24.5	International transport, food, fuel and equipment delivered for use in ships and aircraft engaged in international traffic, shipbuilding	Food, newspapers, books, hotels, warm water, electricity and fuel oil used for the heating of houses and swimming pools

Table 9. (continued) Trends in value added taxes -- tax parameters

	Year VAT introduced	Initial standard rate	1996 standard rate	Zero rated goods	Lower rated goods
Ireland	1972	16.4	21	Books, children's clothing and footwear, oral medicine, certain medical equipment, certain goods, seeds, fertilisers	
Luxembourg	1970	8	15	None	Agriculture, books, food, fuel, medicine, newspapers
Mexico	1980	10	15		10 per cent rate applied along the US border
Netherlands	1969	12	17.5	None	Accommodation, agriculture, books, equipment for the disabled, books, hotels, entertainment, authors' rights, museums, transport, travel, passenger travel, accommodation, agriculture, books, catering, food, newspapers and water
New Zealand	1986	10	12.5	Fine metals from refiner to dealer, exports	Long-term stays in a commercial building
Norway	1970	20	23	Books, newspapers, certain aircraft and ships, transport services by ferrying vehicles, second-hand vehicles	None
Portugal	1986	16	17	None	Books, food, supplies to the disabled, medicines, entertainment, newspapers, fuel, transport, electricity, accommodation and restaurant services
Spain	1986	12	16	None	Books, social lodgings, catering, certain cultural and entertainment services, food, hotels, restaurants, supplies to the disabled, medicines, transport, newspapers, public amenities, burial services, agriculture and forestry, domestic passenger transport
Sweden	1969	11.1	25	Commercial aircraft and ships, aircraft fuel, prescription medicine, printing of certain publications	Accommodation, food, passenger transport, ski-lifts, newspapers, certain works of art, imported antiques, collectors items
Switzerland	1995	6.5	6.5	None	Water, food, medicine, books, newspapers, non commercial television
Turkey	1985	10	15	None	Agriculture, leasing, second hand cars, newspapers, books, magazines, basic foodstuffs, natural gas, certain entertainment and cultural services

Source: Owens, J. and E. Whitehouse (1996), "Tax reform for the 21st century", *Bulletin for International Fiscal Documentation*, Vol. 50, No. 11/12; OECD (1997) *Consumption Tax Trends*; and OECD Secretariat.

Table 10. **Incomes and global tax burdens by canton¹**

Per capita

Cantons	GDP (francs, 1995)	Total tax revenue (francs, 1996)	Global index of tax burden ² (Switzerland = 100, 1997)
Zug	67 452	6 196	57
Basel-City	54 769	9 727	112
Zurich	53 994	6 895	80
Geneva	48 066	10 342	113
Basel-Land	45 610	6 456	93
Glarus	45 483	5 227	112
Nidwalden	43 281	4 880	72
Schaffhausen	43 072	6 000	100
Vaud	42 628	6 447	109
Switzerland	42 514	6 254	100
Aargau	42 448	5 233	97
Schwyz	39 689	4 740	83
Solothurn	39 186	5 130	99
St.Gallen	38 668	5 415	99
Ticino	37 599	6 239	97
Graubünden	37 449	6 038	91
Lucerne	37 210	5 498	117
Bern	37 147	5 867	120
Uri	37 056	4 188	89
Thurgau	36 945	5 242	101
Fribourg	35 942	5 688	125
Neuchâtel	35 635	6 070	124
Appenzell A-Rh	33 819	5 104	106
Obwalden	33 590	4 576	116
Appenzell I-Rh	31 428	4 462	98
Valais	29 663	4 738	130
Jura	29 094	4 954	131

1. Each canton is represented by its capital city.
2. This is calculated as a weighted average of the effective tax rates imposed on representative citizens of each canton by different taxes.

Source: Federal finance administration and Federal statistical office.

Table 11. Fiscal burden indexes on households and companies¹

	Company net profits and capital ²		Household income and net wealth ³		Global fiscal burden ⁴	
	1985	1997	1985	1997	1985	1997
Zurich	101.1	103.6	75.9	74.8	82.1	80.3
Bern	118.1	95.8	122.1	121.5	121.9	120.4
Luzern	103.7	90.4	116.7	120.4	114.9	116.6
Uri	114.1	114.7	128.8	87.2	125.7	88.7
Schwyz	87.3	86.5	81.5	81.7	82.9	82.7
Obwalden	94.3	88.8	111.3	120.6	108.1	116.0
Nidwalden	106.4	86.4	80.3	68.8	84.4	72.2
Glarus	131.3	146.5	104.0	106.5	107.0	111.9
Zug	67.2	58.0	66.8	55.6	68.0	57.3
Fribourg	106.8	102.5	118.6	128.5	116.6	124.8
Solothurn	120.5	97.8	89.4	100.0	93.2	99.4
Basel-City	107.9	110.9	110.8	112.5	109.6	111.9
Basel-Land	109.6	109.9	92.5	90.3	96.3	93.2
Schaffhausen	109.6	101.8	92.5	100.2	93.7	99.5
Apenzell A.Rh	102.1	111.0	94.0	105.1	95.2	106.2
Apenzell I.Rh	107.0	94.5	103.1	97.8	103.4	97.5
St. Gallen	99.6	95.3	88.6	99.4	91.8	99.2
Graubunden	159.8	115.0	96.3	81.3	109.6	90.5
Aargau	111.5	104.0	92.1	97.1	94.4	97.3
Thurgau	102.9	99.3	91.0	102.6	91.7	101.1
Ticino	122.9	121.4	83.3	91.2	92.8	96.9
Vaud	97.1	107.1	126.2	108.8	121.9	109.4
Valais	118.6	116.4	117.4	134.4	115.9	130.1
Neuchatel	138.6	142.0	131.0	122.7	130.7	124.4
Geneva	101.3	118.8	115.2	112.8	111.6	113.3
Jura	111.8	105.8	134.3	133.4	131.0	130.5
Average of Canton	109.7	105.5	102.8	103.1	103.1	103.1
Standard deviation	17.2	19.2	18.7	18.8	18.8	18.8
Coefficient of variation	0.2	0.2	0.2	0.2	0.2	0.2
Maximum	159.8	146.5	134.3	134.4	131.0	130.5
Minimum	67.2	58.0	66.8	55.6	68.0	57.3
Range	92.6	88.5	67.5	78.8	63.0	73.2

1. Switzerland, calculated as a weighted average, has a base value of 100. Each canton is represented by its capital city.
2. Total index of the burden on net profits and capital.
3. Global index of the burden on the income and wealth of physical persons, taking into account changes in income caused by inflation.
4. Global index of tax burden taking into account changes in personal income caused by inflation. This is the weighted average of the tax burden indexes on income, net profits and capital and motor vehicles.

Source: Administration Fédérale des Contributions, *Charge fiscale en Suisse*.

Table 12. **Progressiveness: average production worker versus top bracket marginal tax rates¹**

Percentage points of taxation

	Average Production Worker's Rate (APW) ²	Top marginal tax rate and social security contributions for top bracket earner ³	Difference Top Rate and APW
	(A)	(B)	(B-A)
United States	29.9	48.1	18.1
Japan	21.6	65.0	43.4
Germany	55.2	55.9	0.7
France	35.4	61.6	26.2
Italy	40.7	50.8	10.1
United Kingdom	33.0	40.0	7.0
Canada	45.0	54.1	9.1
Australia	35.5	48.5	13.0
Austria	42.5	50.0	7.5
Belgium	55.9	66.1	10.2
Czech Republic	30.0	47.5	17.5
Denmark	52.1	62.4	10.3
Finland	50.7	62.0	11.3
Greece	20.1	..	..
Hungary	46.5	43.5	-3.0
Iceland	39.2	49.6	10.4
Ireland	54.7	50.2	-4.5
Korea	8.1	45.9	37.8
Luxembourg	43.1	46.6	3.5
Mexico	17.6	35.0	17.4
Netherlands	55.1	60.0	4.9
New Zealand	33.0	33.0	0.0
Norway	45.3	49.5	4.2
Poland	20.0	40.0	20.0
Portugal	26.0	46.6	20.6
Spain	26.8	56.0	29.2
Sweden	35.7	59.6	23.9
Switzerland⁴	31.1	51.4	20.3
Turkey	30.5	61.3	30.8

1. This measure of progressivity is based on the difference between the top rate paid and the average production worker's rate. The figures for the APW are for the year 1997, while the figures for the top bracket earner are for the year 1998.

2. Marginal tax rate covering employee's social security contributions and personal income tax for single worker, no children.

3. This is the sum of the standard rate, net surcharges and net sub-central highest rates. The net rate is different from the legal rate whenever one of the taxes is deductible from the other. It includes social security paid by employees.

4. Figures for Switzerland are for the canton of Zurich (Zurich city).

Source: OECD, *The Tax/Benefit Position of Employees* and the OECD Tax database.

Table 13. **Gini coefficients for selected definitions of income**

Switzerland, 1987

Gini Coefficients (*1000)	
1) Factor income	334
2) Final income	226
Difference	108
Percentage of differences attributable to	
1) Budget side	
a - taxes	37.4%
b - expenditure	62.6%
2) Government level	
i) Central government	37.5%
a - taxes	7.3%
b - expenditure	30.2%
ii) Sub-central government	62.5%
a - taxes	30.1%
b - expenditure	32.4%

Source: G. Kirchgässner, W.W. Pommerehne (1996).

Table 14. **Marginal effective tax rates in manufacturing -- selected cantons**^{1,2}

Wealth taxes included -- per cent, 1998

	Sources of finance			Physical assets			Overall average	Standard deviation
	Retained earnings	New equity	Debt	Machinery	Building	Inventories		
I. Pre-tax required real rate of return³								
Aargau	4.2	6.4	4.5	4.2	4.6	5.0	4.5	0.9
Basel-City	3.8	6.3	4.5	4.1	4.4	4.8	4.3	0.9
Bern	3.8	6.2	4.5	4.0	4.4	4.7	4.3	0.9
Geneva	3.5	6.3	4.5	3.9	4.2	4.6	4.1	1.0
Nidwalden	4.2	5.9	4.6	4.3	4.6	4.9	4.5	0.6
Schwyz	4.5	6.1	4.6	4.4	4.8	5.1	4.7	0.6
Vaud	3.7	6.3	4.5	3.9	4.3	4.7	4.2	0.9
Zug	4.4	5.8	4.7	4.4	4.7	5.0	4.6	0.5
Zurich	3.7	6.2	4.5	3.9	4.3	4.7	4.2	0.9
Average	4.0	6.2	4.5	4.1	4.5	4.8	4.4	0.8
Standard deviation	0.4	0.2	0.1	0.2	0.2	0.2	0.2	0.2
Coefficient of variation	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.2
II. Effective marginal tax wedges⁴								
Aargau	1.6	3.9	1.9	1.7	2.1	2.5	2.0	0.8
Basel-City	1.0	3.4	1.6	1.2	1.6	1.9	1.5	0.8
Bern	8.0	10.4	8.7	8.2	8.6	8.9	8.5	0.8
Geneva	1.7	4.5	2.7	2.1	2.4	2.8	2.3	0.9
Nidwalden	0.8	2.4	1.2	0.9	1.2	1.5	1.1	0.5
Schwyz	1.3	2.9	1.4	1.2	1.6	1.9	1.5	0.5
Vaud	1.7	4.4	2.6	2.0	2.4	2.8	2.3	0.9
Zug	1.0	2.4	1.2	1.0	1.3	1.6	1.2	0.5
Zurich	1.5	4.0	2.3	1.8	2.1	2.5	2.0	0.8
Average	2.1	4.3	2.6	2.2	2.6	2.9	2.5	0.7
Standard deviation	2.2	2.4	2.4	2.3	2.3	2.3	2.3	0.2
Coefficient of variation	1.1	0.6	0.9	1.0	0.9	0.8	0.9	0.2

1. Top personal taxes, real rate assumed to be 5 per cent. Asset weighting is as follows: machinery 50 per cent; buildings 28 per cent; inventories 22 per cent. Finance weighting as follows: retained earnings 55 per cent; new equity 10 per cent; debt 35 per cent. Economic depreciation rates are: machinery 12.5 per cent; buildings 3.6 per cent; inventories 0 per cent. See OECD (1991) for discussion of this methodology.

2. Each canton is represented by its capital city.

3. This is the rate of return (p) on an investment that must be earned to give a household the same after-tax rate of return as a bank deposit earning 5 per cent.

4. This is the difference between the pre-tax required rate of return (p) and the rate of return after all taxes (s), assuming a 5 per cent real rate of return before personal taxes.

Source : OECD Secretariat.

Table 15. **Marginal effective tax wedges in manufacturing: selected OECD countries¹**

Excluding wealth taxes - per cent, 1998

	Sources of financing ²			Physical assets ³			Overall weighted average ⁴	Standard deviation
	Retained earnings	New equity	Debt	Machinery	Building	Inventories		
United States	1.9	5.0	1.7	1.5	2.8	2.7	2.1	1.3
Japan	4.2	6.4	0.1	1.5	4.9	3.9	3.0	2.3
Germany	1.5	1.0	1.4	1.0	1.7	2.1	1.4	0.4
France	3.7	6.9	0.8	2.2	3.8	3.8	3.0	2.1
Italy	2.3	2.6	0.6	1.0	1.8	3.3	1.7	1.0
United Kingdom	2.2	2.8	1.8	1.7	2.1	3.1	2.2	0.6
Canada	4.3	5.0	1.3	2.2	4.1	4.8	3.3	1.5
Australia	2.7	2.5	2.5	2.1	2.8	3.4	2.6	0.5
Austria	0.8	2.7	0.1	-0.1	1.0	2.3	0.7	1.1
Belgium	1.4	2.6	-0.6	0.1	0.8	2.7	0.9	1.3
Denmark	2.4	3.1	2.9	2.2	2.5	3.8	2.6	0.6
Finland	2.3	0.9	0.9	1.3	1.8	2.6	1.7	0.7
Greece	2.4	2.4	-0.2	1.1	0.5	3.4	1.4	1.3
Iceland	2.1	2.6	-0.0	1.0	1.6	2.2	1.4	1.0
Ireland	1.7	3.7	2.6	1.8	2.1	3.3	0.7	0.8
Luxembourg	3.6	2.4	1.7	2.2	2.8	4.2	2.8	1.0
Mexico	1.3	1.3	0.4	0.7	0.8	1.7	1.0	0.5
Netherlands	0.6	6.4	3.0	1.8	2.3	2.0	2.0	2.0
New Zealand	1.7	1.7	1.7	1.7	1.5	2.1	1.7	0.2
Norway	1.3	1.3	1.3	1.0	1.3	2.1	1.3	0.4
Portugal	2.1	4.7	-0.1	1.6	1.5	1.9	1.6	1.6
Spain	3.9	3.2	2.6	3.1	3.6	3.7	3.4	0.5
Sweden	2.2	2.9	0.9	1.5	1.9	2.5	1.8	0.7
Switzerland⁵	0.8	3.7	1.5	0.9	1.4	2.0	1.3	1.1
Turkey	..	..	..	..	..	..	..	..
OECD average ⁶	2.2	3.2	1.2	1.5	2.1	2.9	1.9	1.0
G7 average ⁶	2.9	4.3	1.1	1.6	3.0	3.4	2.4	1.3
EU average ⁶	2.2	3.2	1.2	1.5	2.0	3.0	1.9	1.0

1. These indicators show the degree to which the personal and corporate tax systems scale up (or down) the real pre-tax rate of return that must be earned on an investment, given that the household can earn a 5 per cent real rate of return on a bank deposit. Wealth taxes are excluded. See OECD (1991) for discussion of this methodology.
2. The weighted average uses the following weights: machinery 50 per cent, buildings 28 per cent, inventories 22 per cent.
3. The weighted average uses the following weights: retained earnings 55 per cent, new equity 10 per cent, debt 35 per cent.
4. The weighted average uses weights indicated in footnotes 2 and 3.
5. Figures for Switzerland are for the canton of Zurich (Zurich city). They are lower than in the preceding table because wealth taxes are excluded.
6. Averages are simple averages across available countries.

Source: OECD Secretariat.

Table 16. **Financial assets of pension funds**

As a percentage of GDP

	1990	1991	1992	1993	1994	1995	1996	1997
Australia	17.0	21.6	21.3	27.3	27.0	29.1	30.4	30.7
Austria	..	0.5	0.5	0.6	0.7	1.0	1.2	..
Belgium	2.0	2.8	2.5	2.9	2.9	3.7	4.1	..
Canada	28.8	30.7	31.3	34.0	35.9	38.6	40.7	43.3
Czech Republic	..	..	..	..	0.1	..	..	..
Denmark	14.6	15.5	14.4	16.8	17.2	16.8	16.9	..
Finland	..	..	..	..	..	..	..	..
France	..	..	..	..	..	..	..	..
Germany	3.1	3.3	2.9	2.5	2.7	2.7	2.8	2.9
Greece	6.5	7.1	6.9	8.0	10.2	10.8	11.9	..
Hungary	..	..	..	..	..	..	..	..
Iceland	37.3	42.1	40.8	46.8	55.0	57.6	62.5	66.5
Italy	3.5	4.3	3.1	3.4	3.5	3.6	3.2	2.9
Japan	..	..	..	..	..	..	..	..
Korea	3.1	2.9	3.2	3.4	3.3	3.1	2.8	1.8
Luxembourg	17.7	18.5	17.2	17.2	18.7	18.2	18.2	..
Netherlands	81.0	83.5	76.0	83.0	87.0	88.3	93.3	102.0
Norway	4.4	4.9	4.5	5.5	6.4	6.4	6.5	..
Portugal	1.6	2.6	2.9	5.0	6.6	8.3	9.1	10.1
Spain	2.9	3.2	2.5	2.6	2.4	2.2	2.0	2.0
Sweden	1.7	1.7	1.6	2.0	2.2	2.4	2.4	..
Switzerland	60.3	..	60.6	..	72.5	..	75.1	..
Turkey	..	..	..	..	..	..	..	..
United Kingdom	55.0	59.4	52.7	72.7	64.7	68.7	77.5	..
United States	44.9	50.6	51.9	54.4	53.3	59.4	64.4	72.5

Source: OECD (1998c), *Institutional Investors Statistical Yearbook 1998*.

Table 17. **Financial assets of insurance companies**
As a percentage of GDP

	1990	1991	1992	1993	1994	1995	1996	1997
Australia	24.6	27.7	30.0	36.2	35.0	34.6	38.6	35.7
Austria	15.4	16.3	15.7	17.2	19.3	20.3	21.0	..
Belgium	28.3	29.5	26.5	27.1	30.4	29.9	30.9	..
Canada	24.0	25.7	25.5	27.1	26.8	28.5	29.7	29.5
Czech Republic	..	..	..	5.5	6.0	0.2	0.3	0.3
Denmark	38.3	41.0	36.8	41.0	44.2	43.7	45.1	..
Finland	6.5	7.3	7.1	8.8	13.4	12.3	14.0	..
France	22.0	25.0	24.9	31.9	34.3	39.5	45.8	52.6
Germany	24.4	24.9	22.1	23.7	27.1	28.3	29.5	31.9
Greece	..	1.7	1.6	1.9	2.4	3.2	3.5	..
Hungary	..	2.5	2.4	2.5	2.9	2.9	3.8	..
Iceland	4.2	4.5	6.8	7.9	9.3	9.2	9.4	9.2
Italy	6.0	6.8	6.0	7.7	9.8	11.1	12.0	13.4
Japan	36.2	37.0	36.2	37.8	41.0	38.0	37.9	38.1
Korea	18.9	19.6	21.3	21.7	22.1	23.5	24.9	15.9
Luxembourg	..	..	..	..	..	44.5	..	..
Mexico	1.0	1.1	1.2	1.3	0.9	1.2	1.5	1.5
Netherlands	41.1	45.8	43.2	47.5	51.8	54.3	56.6	60.3
New Zealand	..	..	..	..	..	11.1	12.1	10.8
Norway	29.3	30.7	26.3	29.8	32.4	31.2	30.4	..
Poland	..	..	..	..	1.3	1.4	1.6	..
Portugal	2.8	3.4	3.4	4.6	6.1	7.6	9.4	..
Spain	9.9	11.2	10.3	11.8	15.7	17.5	18.6	20.4
Sweden	34.6	39.4	32.7	45.2	46.6	52.2	56.9	..
Switzerland	50.5	52.7	50.8	55.6	61.4	62.9	61.3	71.9
Turkey	0.2	0.3	0.3	0.3	0.4	0.4	0.6	..
United Kingdom	46.6	52.7	49.3	71.0	64.7	73.8	88.6	..
United States	33.9	36.0	36.2	37.8	37.7	39.8	40.9	43.1

Source : OECD (1998c), *Institutional Investors Statistical Yearbook*.

Table 18. **Portfolios of pension funds**
Per cent of assets, 1994

	Equities	Bonds and loans	Property	Liquidity and deposits	Foreign assets ¹
Australia	48	27	8	17	16
Austria	11	75	2	12	20
Belgium	36	47	7	10	35
Canada (1992)	38	49	3	7	9
Denmark	22	65	9	4	7
Finland	5	73	12	10	n.a.
France	14	39	7	40	5
Germany	11	75	11	3	6
Ireland	55	35	6	4	37
Italy	9	62	23	6	5
Japan (March 1994)	27	61	2	3	7
Luxembourg	20	70	0	10	n.a.
Netherlands	23	67	9	2	17
Portugal	10	72	3	15	n.a.
Spain	4	82	1	13	5
Sweden	32	47	8	13	12
Switzerland	13	52	20	15	9
United Kingdom	80	11	6	3	30
United States	48	38	0	7	10
Prudent man	49	38	5	7	20
Asset restrictions	16	63	8	12	11

1. Foreign assets are included in the categories to the left.

Source: European Federation for Retirement Provision (1996), *European Pension Funds, Their Impact on Capital Markets and Competitiveness..*

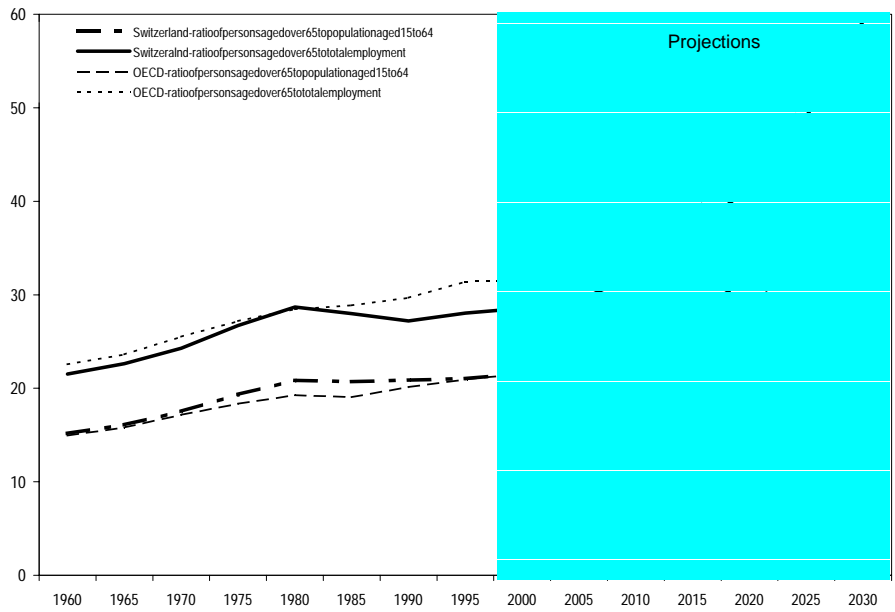
Table 19. **Corporate, property and financial taxation**
As a share of total capital taxes, per cent

	Average 1980-85	Average 1986-90	Average 1991-96
Corporate income taxes	28.8	30.6	31.6
Property taxes	36.9	38.7	38.2
Recurrent taxes on immovable property	2.5	2.1	2.5
Taxes on financial and capital income	11.3	14.9	10.9
Capital income of the self employed ¹	34.2	30.7	30.2

1. Taxes on capital income of the self employed were estimated by applying an average rate of household taxation to property and entrepreneurial income (the latter adjusted for an imputed wage component).

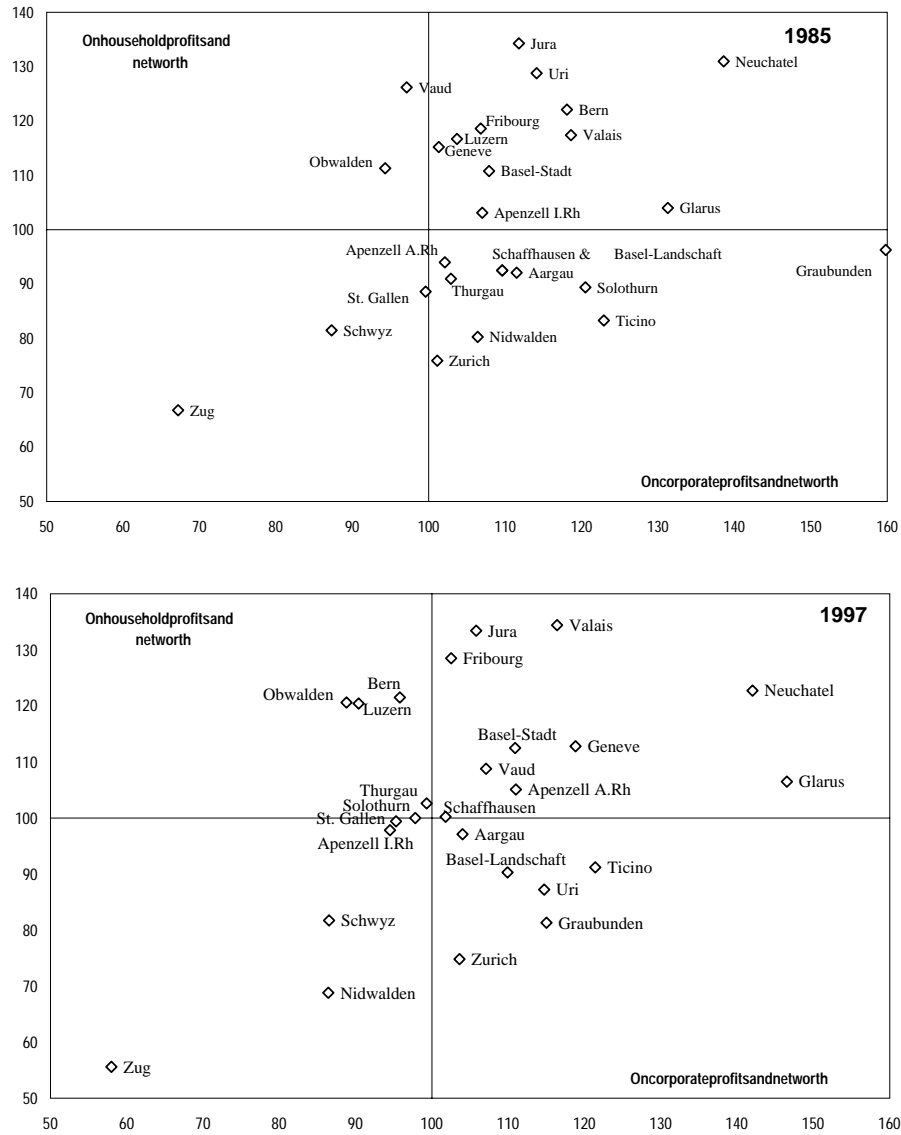
Source: OECD (1998a), *Revenue Statistics* and OECD Secretariat.

Figure 1. Dependency ratios
Percent



Source: OECD Secretariat.

Figure 2. Fiscalburdenindexesonhouseholdsandcompanies 1,2



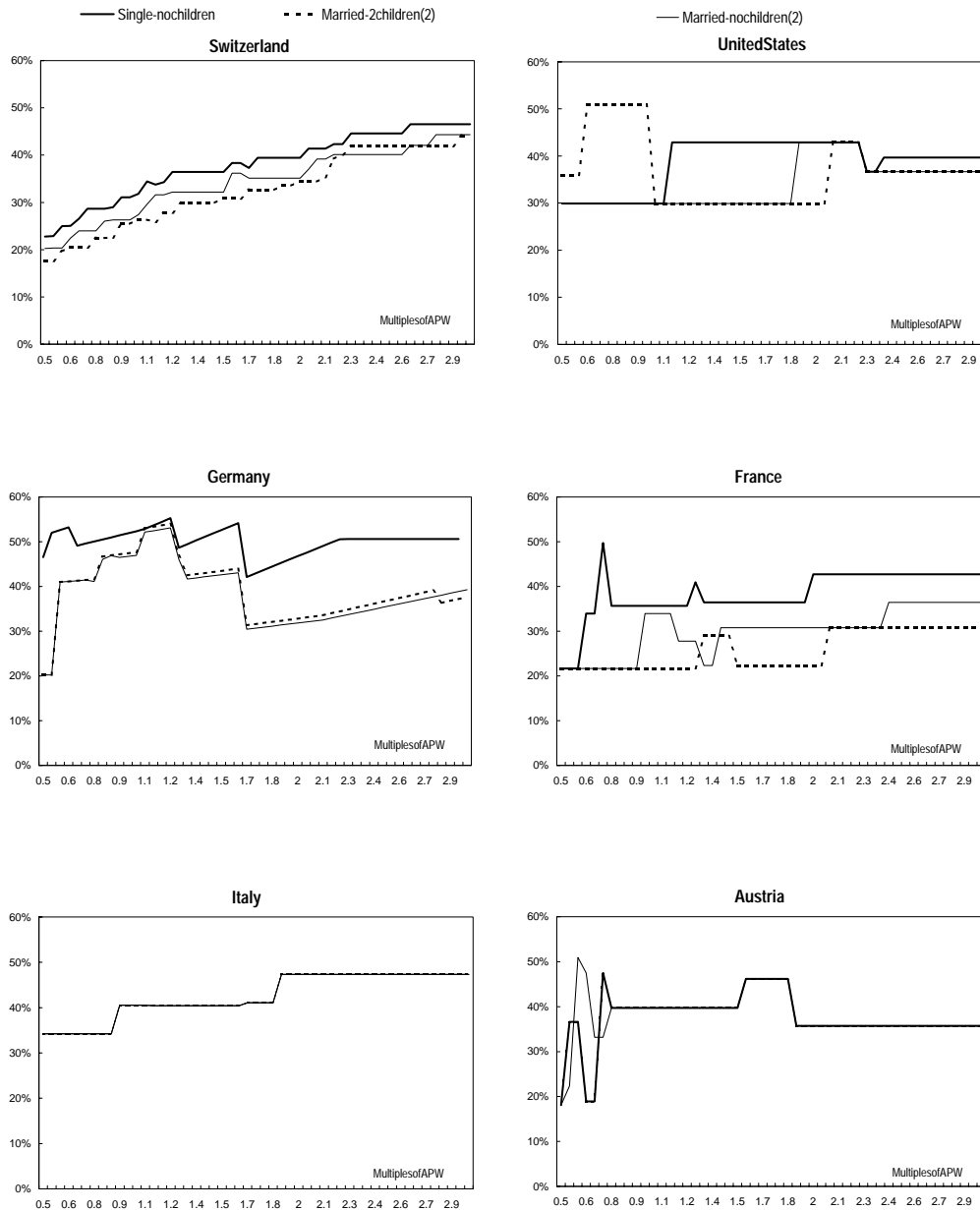
1. For Households: global index of the tax burden on the income and wealth of physical persons, taking account of changes in income caused by inflation.

For companies: total index of the tax burden on net profits and capital.

2. Switzerland (a weighted average) has a base value of 100.

Source: Administration Fédérale des Contributions, *Chargés fiscaux en Suisse*.

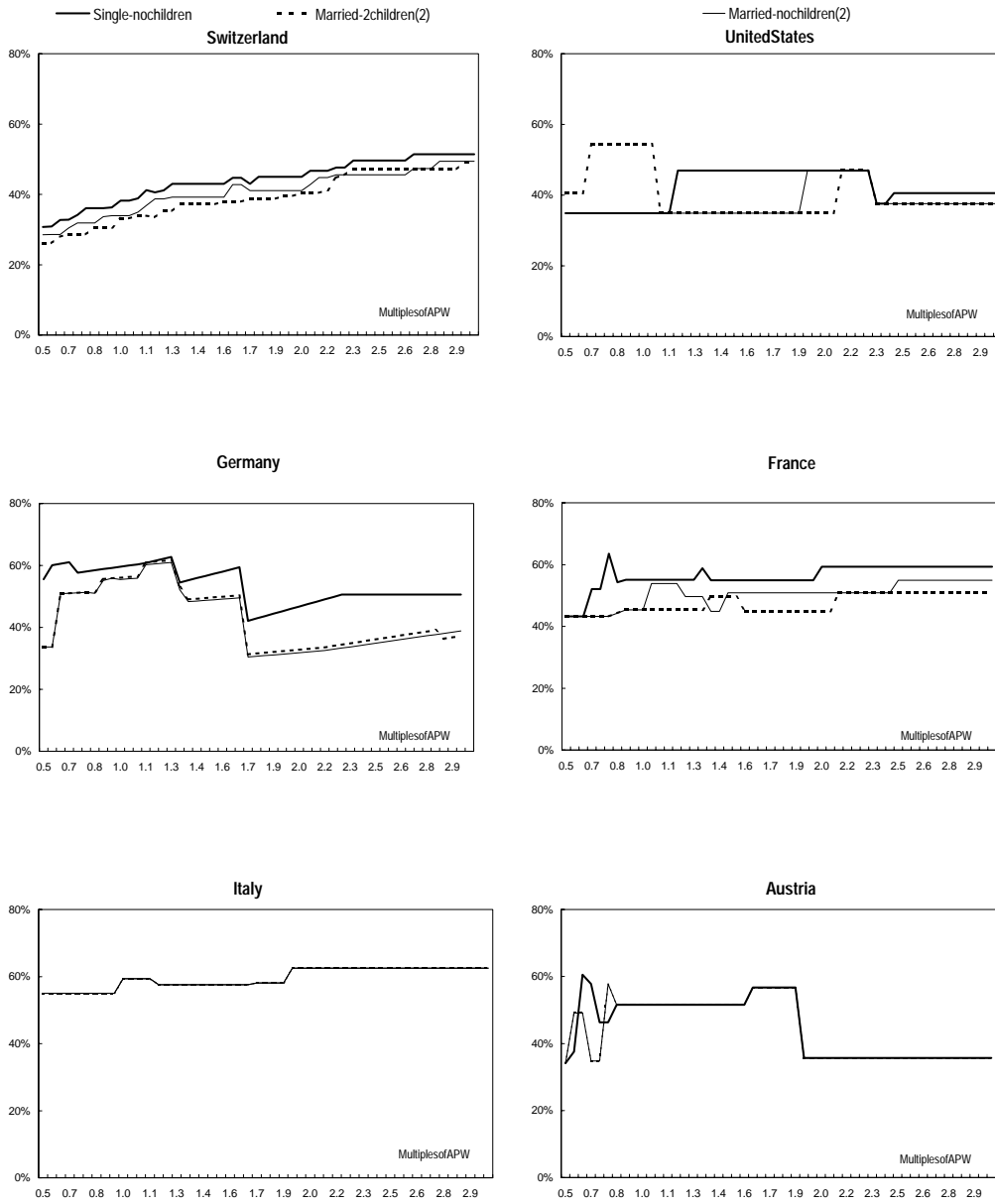
Figure3 . Marginaltaxrates ¹-selectedcountries,1996



1. Marginal total payments by employees (income tax plus social security contributions) less cash transfers as a percentage of their gross income from labour (this excludes employer contributions to social security). Compulsory employee contributions to private pension schemes (which should be considered as savings rather than taxes) are included as taxes.
 2. Second income is zero.

Source : OECD, *The tax/benefit position of employees, Tax equations* and OECD Secretariat.

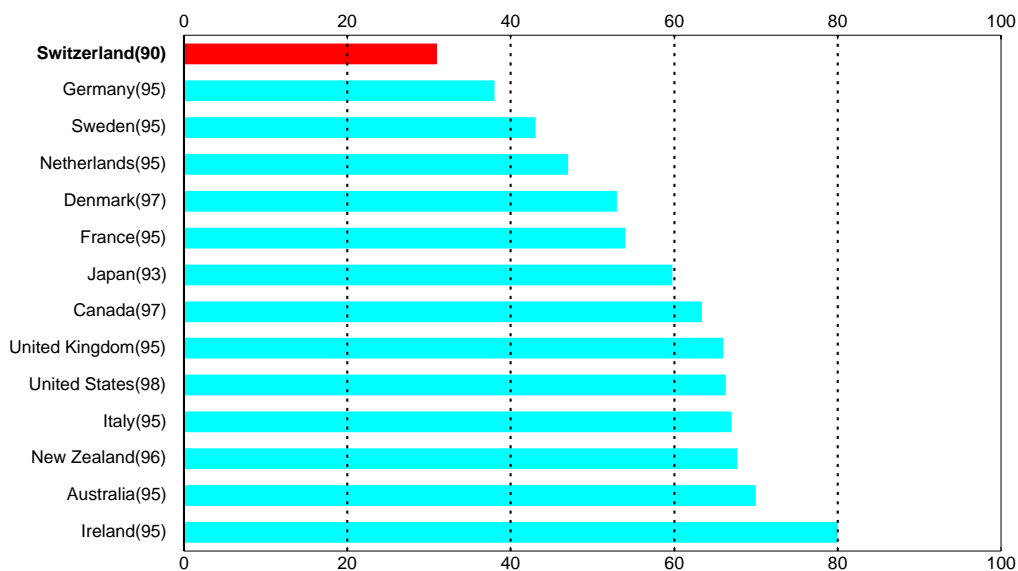
Figure 4. Marginal total labour tax wedges ¹-selected countries, 1996



1. This is the difference between gross labour costs to the employer (including employer contributions to social security and compulsory employer contributions to pension funds) and employees' net income from labour after deduction of income taxes, social security contributions and compulsory contributions to private pension schemes (which should be considered as savings rather than taxes).
 2. Second income is zero.

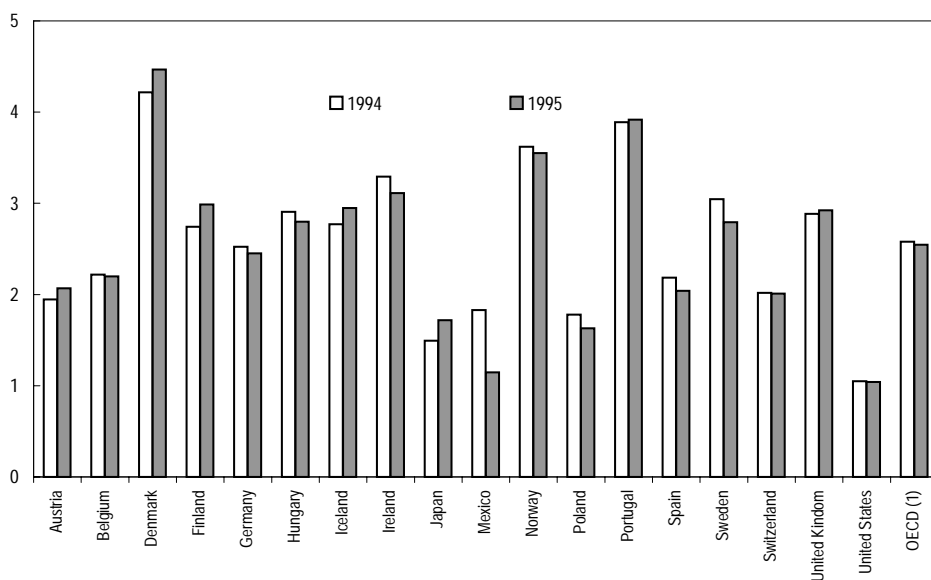
Source: OECD, *The tax/benefit position of employees, Tax equations* and OECD Secretariat.

Figure 5. SHARE OF OWNER-OCCUPIED HOUSING IN SELECTED OECD COUNTRIES (1)



1. Data in brackets is the census year.
 Source : National sources and OECD Secretariat.

Figure 6 . Revenues from environmentally related tax-bases-selected OECD countries
 Share of GDP, percent



1. Simple average of above countries.
 Source: OECD, Revenue Statistics and Database on environmentally related taxes.

BIBLIOGRAPHY

- Bernheim, B. Douglas (1996), "Rethinking saving Incentives," Stanford University Economics Working Paper 96-009.
- Carey, David, Kathryn Gordon and Harry Tchilinguirian (1999), "Average Effective Tax Rates on Capital, Labour and Consumption Goods," OECD Economics Department Working Papers.
- Daly, Michael and J. Weiner (1993), "Corporate tax harmonisation and competition in federal countries: some lessons for the European Community?", *National Tax Journal*, Vol. XLVI, No. 4.
- Engen, Eric M., William G. Gale and John Karl Scholz (1996), "The Illusory Effects of Saving Incentives on Saving," *Journal of Economic Perspectives* 10:4, 113-138.
- European Federation for Retirement Provision (1996), *European Pension Funds, Their Impact on Capital Markets and Competitiveness*.
- Feld, L.P., G. Kirchgässner, and W.W. Pommerehne (1996), "Tax Harmonization and Tax Competition at State-Local Levels: Lessons from Switzerland", in G. Pola, G. France and R. Levaggi (eds.), *Developments in Local Government Finance: Theory and Policy*, Edward Elgar, Aldershot, 292-330.
- Frey, Bruno S. and Reiner Eichenberger (1996), *Journal of Public Economics* 60, 335-349.
- Gale, William G. and John Karl Scholz (1994), "IRAs and Household Saving," *American Economic Review* 84:5, 1233-60.
- Gordon, Kathryn and Harry Tchilinguirian (1998), "Marginal Effective Tax Rates on Physical, Human and R&D Capital," OECD Economics Department Working Papers No. 199.
- Hubbard, R., Glenn and Jonathan Skinner (1996), "Assessing the Effectiveness of Saving Incentives," *Journal of Economic Perspectives* 10:4, 73-90.
- Kesti, Juhani (managing editor) and Peter S. Anderson (editor) (1998), *European Tax Handbook*, International Bureau of Fiscal Documentation.
- King, Mervyn A. and Don Fullerton (1984), *The Taxation of Income from Capital*.
- Kirchgässner, G. and W. Pommerehne (1996), "Tax harmonisation and tax competition in the European Union: lessons from Switzerland", *Journal of Public Economics* 60(3), June, 351-371
- Kirchgässner, G. and W. Pommerehne (1997), "Public spending in federal states: a comparative econometric study", in: P. Capros und D. Meulders (eds.), *Budgetary Policy Modeling: Public Expenditures*, Routledge, London/New York, 179-213

- Mitchell, Olivia S. and James F. Moore (1997), "Retirement wealth accumulation and decumulation: new developments and outstanding opportunities", National Bureau of Economic Research Working Paper 6 178.
- Müller, Christoph (1998), "Obligations administratives des PME en comparaison intercantonale et internationale", *Cahier des Questions Conjoncturelles* 2/98, 132-139.
- OECD (1991), *Taxing Profits in a Global Economy*.
- OECD (1996), *Economic Surveys, Switzerland*.
- OECD (1997) *Consumption Tax Trends*.
- OECD (1998a), *Revenue Statistics*.
- OECD (1998b), *Harmful Tax Competition*.
- OECD (1998c), *Institutional Investors Statistical Yearbook*.
- Owens, J. and E. Whitehouse (1996), "Tax reform for the 21st century", *Bulletin for International Fiscal Documentation*, Vol. 50, No. 11/12.
- Poterba, James M., Steven F. Venti and David A. Wise (1993), "Do 401(k) contributions crowd out personal saving?", National Bureau of Economic Research Working Paper 4391.
- Poterba, James M., Steven F. Venti and David A. Wise (1996a), "Personal retirement saving programs and asset accumulation: reconciling the evidence", National Bureau of Economic Research Working Paper 5599.
- Poterba, James M., Steven F. Venti and David A. Wise (1996b), "Individual financial decisions in retirement saving plans and the provision of resources for retirement", National Bureau of Economic Research Working Paper 5672.
- Poterba, James M., Steven F. Venti and David A. Wise (1996c), "How retirement saving programs increase saving", *Journal of Economic Perspectives* 10:4, 91-112.
- Slemrod, J. (1992), "Why people pay taxes: introduction", in Slemrod (ed.), *Why People Pay Taxes: Tax Compliance and Enforcement*, The University of Michigan Press, Ann Arbor.
- STG-Coopers and Lybrand (1995), *Les impôts en Suisse*.
- Thalmann, P. (1997), *Impôts Écologiques. L'Exemple des Taxes CO₂*, Presses Polytechniques et Universitaires Romandes, Lausanne.
- Weck-Hannemann, Hannelore and Werner W. Pommerehne, (1989), "Einkommensteuerhinterziehung in der Schweiz: Eine empirische Analyse" (Income Tax Evasion in Switzerland: An Empirical Analysis), 125 *Schweizerische Zeitschrift für Volkswirtschaft und Statistik*, 515-556
- Weck-Hannemann, Hannelore, Werner W. Pommerehne, and Bruno S. Frey (1986), *Die Heimliche Wirtschaft, Haupt*, Bern.

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