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**Enhancing the Effectiveness
of Public Spending
in Finland**

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David Turner,
Seija Parviainen**

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ENHANCING THE EFFECTIVENESS OF PUBLIC SPENDING IN FINLAND

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by
Philip Hemmings, David Turner and Seija Parviainen

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Enhancing the effectiveness of public spending in Finland

Finland is committed to high quality and extensive public services and a high level of income redistribution. The heavy tax burden these commitments require is becoming increasingly difficult to sustain due to tax competition and the need to harmonise certain taxes with other EU countries. These pressures on taxation combined with the fiscal effects of rapid ageing imply a need for continued restraint of aggregate expenditure and a need for further efficiency gains in the provision of public services. This paper, one of a series of OECD reviews on public expenditure, looks at how Finland is coping with this challenge. It concludes that the fundamental framework guiding public expenditure in Finland is sound. And, in many areas of public activity the country compares very favourably internationally. However, recent slippage in fiscal discipline needs to be addressed. Also it will be important to monitor, and if necessary follow up on, reforms of pensions and early retirement arrangements so as to ensure long-run sustainability in public finances. In addition, there are important efficiency issues with significant potential rewards, particularly in the provision of health and education that should be tackled. There is a need for a deeper commitment to reforming public-management practices. To this end it would be particularly useful if benchmarking were more widespread and more in the public eye. There is also a general reluctance to step away from traditional-style in-house provision of public services and current government efforts to overcome this should be continued. The paper concludes with a detailed set of specific policy recommendations.

JEL classification: H2, H4, H5, H6, H7

Key words: public economics, structure and scope of government, government expenditure, pensions, health, education, state and local government, Finland.

Renforcer l'efficacité des dépenses publiques en Finlande

La Finlande est foncièrement attachée à une offre très diversifiée de services publics de haute qualité et à une forte redistribution des revenus. La pression fiscale qu'impose cet attachement est de plus en plus difficile à tenir, non seulement pour des raisons d'efficacité, mais aussi du fait de la concurrence fiscale et de la nécessité d'harmoniser certains impôts avec les autres pays de l'Union européenne. Du fait de ces contraintes pesant sur la fiscalité, auxquelles s'ajoutent les conséquences budgétaires de l'accélération du vieillissement de la population, il faut freiner en permanence l'ensemble des dépenses publiques et poursuivre l'effort d'efficacité dans l'offre des services publics. Le présent document de travail, qui s'inscrit dans la série des examens que l'OCDE consacre aux dépenses publiques, traite de la réponse de la Finlande à ce défi. Il conclut à la solidité du cadre fondamental des dépenses publiques en Finlande. Et, dans de nombreux domaines de l'action publique, les comparaisons internationales font apparaître la Finlande en pointe. Toutefois, un récent relâchement de la discipline budgétaire doit être traité. Il importe aussi de suivre et, au besoin, d'accompagner, la réforme des pensions et des régimes de retraite anticipée afin d'assurer la viabilité à long terme des finances publiques. De plus, il y aurait beaucoup à gagner à régler d'importantes questions d'efficacité, notamment dans le domaine de la santé et de l'éducation. Il faut s'engager plus avant dans la réforme des méthodes de gestion publique. Il serait particulièrement utile à cet égard que l'évaluation comparative se généralise et qu'elle soit mieux connue du public. On observe aussi une réticence générale à s'écarter de la prestation traditionnelle des services publics en régie et les autorités devraient poursuivre leurs efforts qui visent à vaincre cette résistance. Ce document conclut par un ensemble de recommandations concrètes et précises.

Classification du JEL : H2, H4, H5, H6, H7

Mots-clés : économie publique, organisation et compétences des administrations publiques, dépenses publiques, pensions, santé, éducation, États et collectivités locales, Finlande.

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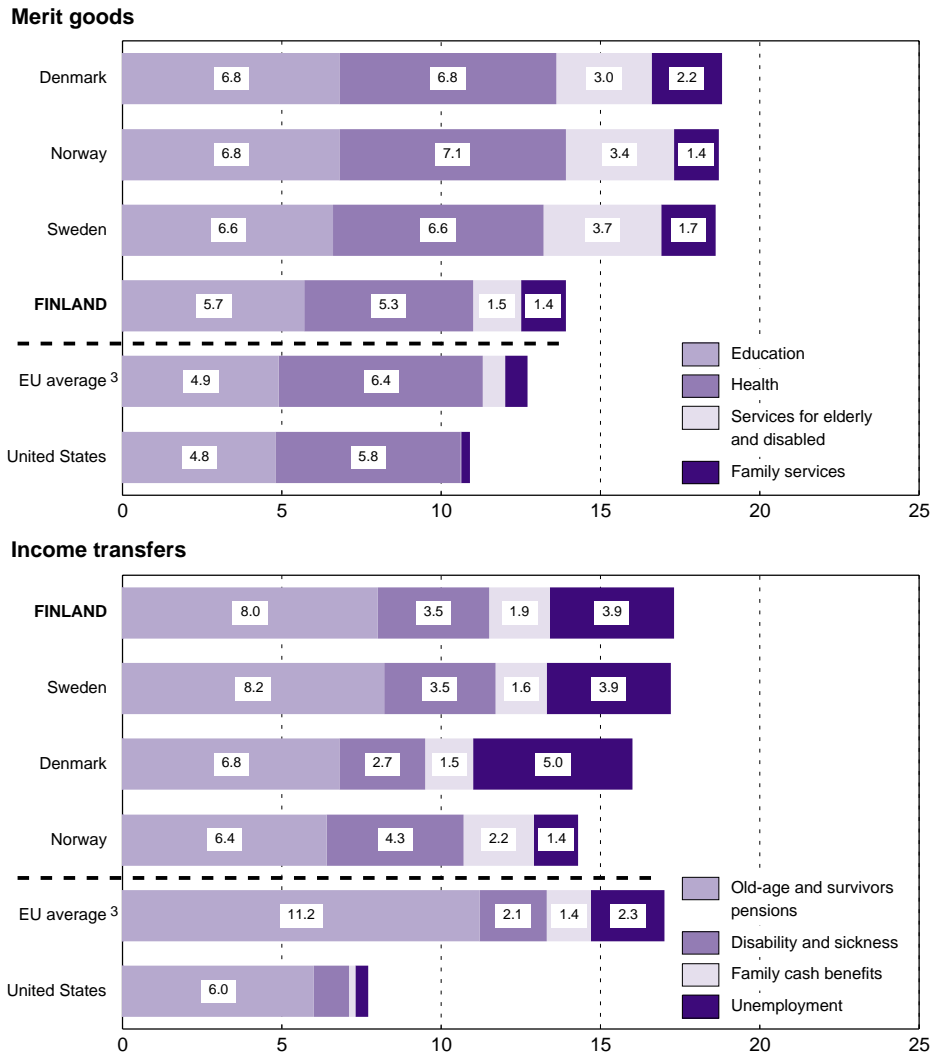
ENHANCING THE EFFECTIVENESS OF PUBLIC SPENDING IN FINLAND^{1,2}

1. Finland is committed to high quality and extensive public services, many of which are provided equally to rich and poor, stemming from a strong egalitarian ethic that it shares with other Nordic countries (Figure 1).³ This ethic also manifests itself in a high degree of income re-distribution but necessitates a heavy tax burden that is becoming increasingly difficult to sustain due to tax competition and the need to harmonise certain taxes with other EU countries. Pressure on taxation implies a need for adjustment of expenditure. Despite the strong fiscal discipline that was exercised following the surge in public spending during the recession of the early 1990s and the subsequent pruning of expenditure as a share of GDP back to the euro area average (Figure 2), several issues need to be tackled to ensure the long-term sustainability of the public accounts:

- *First*, while acknowledging Finland's record of maintaining overall fiscal discipline in the wake of the severe recession of the early 1990s, the government has recently missed some of its medium-term fiscal targets. This partly reflects the focus on annual budgets which does not give enough prominence to the medium-run targets that are laid out in the Government Programme at the beginning of the term of office.
- *Second*, it is important that spending pressure due to ageing is properly anticipated and contained by reform. In this respect, the wide-ranging pension reform legislated in early 2003 is an important step, but needs to be followed-up with monitoring and, if necessary, additional action.
- *Third*, while Finland was among the first countries to change public-sector management practices, it has not followed through to the same extent as the leaders in this regard. Uneven application of good management practices and other features of public service provision mean that some spending programmes contain little incentives to contain costs and demand.⁴ Also, the private sector continues to play only a small role in providing services, reflecting a reluctance of government entities to explore alternatives to in-house provision and resulting in weak contestability.

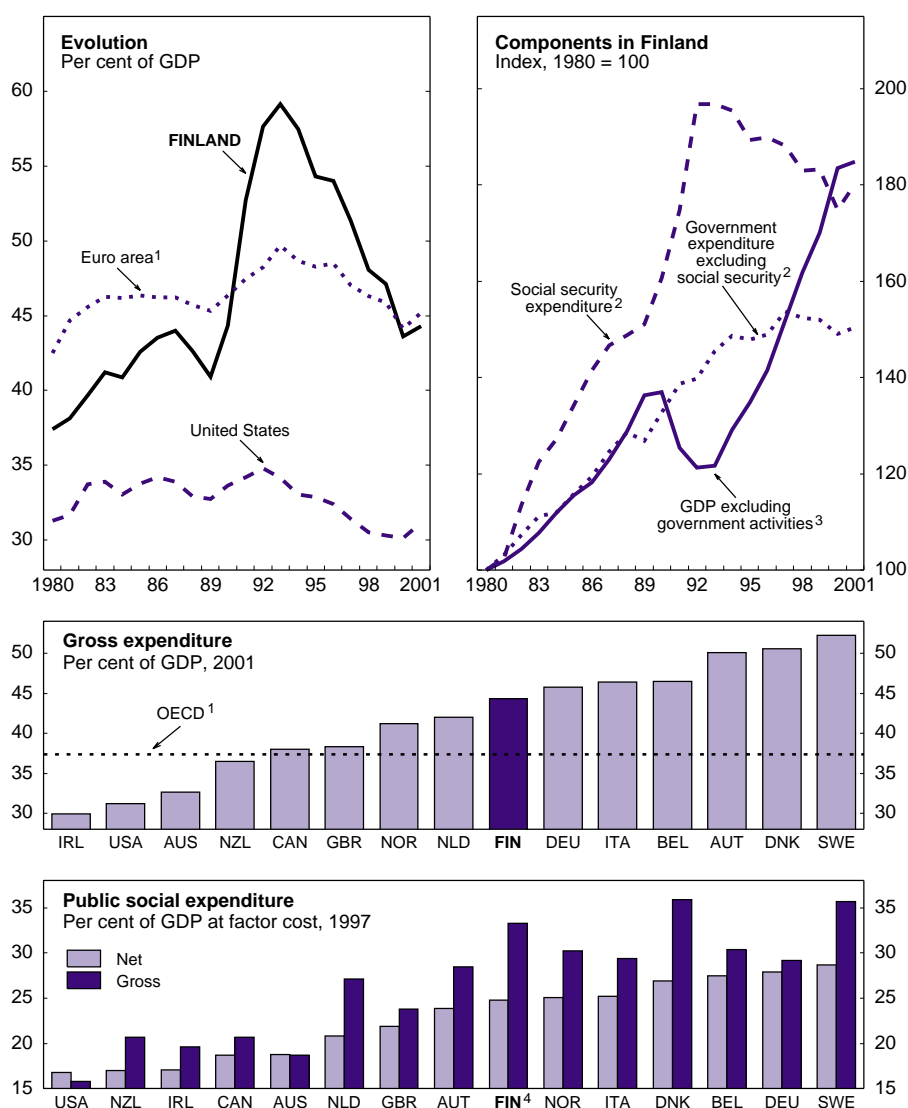
2. The first section of this paper highlights the major forces shaping public spending in Finland in recent years and in the future. The second section then discusses various ways of improving aggregate fiscal discipline. This is followed by an examination of public expenditure issues in local government, including an assessment of the potential gains from further mergers between municipalities. The paper then discusses the key issue for transfers in Finland, that of pension reform. This is followed by an examination of efficiency issues in health, elderly care and education. It concludes with a wrap-up section which provides a set of specific policy recommendations.

Figure 1. Major current government outlays¹
Per cent of GDP, 1999²



1. Denmark, Finland, Norway and Sweden are broadly comparable because transfers are taxed whereas for most of the EU and the United States they are not. Removing the effects of different approaches to taxing transfers reduces overall spending ratios by 4 to 6 percentage points.
 2. Or 1998 when not available. Education data always concern 1998.
 3. Weighted average based on 1995 GDP and purchasing power parities; excluding Luxembourg.
- Source: OECD (2001), *Social Expenditure Database* and *Education at a Glance*.

Figure 2. Public spending in international perspective



1. Weighted average.

2. Nominal data adjusted to 1995 constant prices using the deflator for government final consumption expenditure.

3. Gross value added at fixed prices for total production less government activities.

4. Net expenditure excludes the church tax paid by the majority of Finnish taxpayers.

Source: Statistics Finland and OECD.

Forces shaping public spending developments

Strong fiscal discipline after the 1990s crisis has generally prompted efficiency gains

3. The severe recession of the early 1990s involved both a large fall in GDP and dramatic increases in public spending due to rising claims on both national insurance schemes and municipality-based social assistance. This surge in public spending in turn prompted not only changes to social transfer policy, but also cutbacks in other areas so that growth in non-social-security spending flattened considerably from the mid-1990s (Figure 2). Currently, total public spending as a share of GDP is some 15 percentage points below the peak of the early 1990s, but still slightly above the pre-recession level and well above the OECD average. Overall, the strong spending restraint is frequently seen as having been reflected more in efficiency gains than in significant cuts in the quantity or quality of services.⁵ However, the cuts were largely across the board, rather than targeted, so that some imbalances have emerged, in particular tensions over pay in certain high-skill areas. Spending pressures have also intensified since the budget moved into surplus in 1998. Further expenditure restraint will require increasingly profound changes as the more easily realised savings have already been made.

4. However, there appears to be a problem in ensuring that the fiscal rules of the Programme are adhered to in the annual budget process, as exemplified in the slippage that has occurred in recent years. This suggests that there may be ways of improving the current system.

But slippage in aggregate expenditure has occurred recently

5. When the previous government was elected in 1999 it adopted a number of medium-term fiscal objectives that included:

- Maintaining a central government structural surplus, later re-specified as an actual surplus of 1½-2 per cent of GDP, together with a general government surplus of about 4½ per cent of GDP.⁶
- Keeping central government expenditure, including interest payments at their 1999 level in real terms.

6. The objective for the central government surplus has broadly been met, with a surplus of 1¾ per cent of GDP in 2002, with the surplus averaging nearly 2½ per cent of GDP over the period 2000-2. However, according to a recent Ministry of Finance forecast the central government is expected to be in slight deficit in 2003. The overrun on the expenditure target is larger, with budgeted central government expenditure about EUR 1¼ billion higher in real terms than the spending level established in the 1999 Budget, equivalent to an overrun of about 3½ per cent relative to the 1999 expenditure level. Moreover the expenditure slippage has occurred despite a substantial fall in debt service of about EUR 1¼ billion since 1999. Much of the increase in central government spending is explained by a rise in transfers to local government, with nominal local government consumption expenditure rising at about twice the rate of that for central government. The rise in real general government consumption expenditure (evaluated in conventional national accounts terms) was 4 per cent in 2002 alone (although 1 percentage point of this increase is of a technical nature relating to a sectoral re-classification of activities).

Pressures to reduce the tax burden

7. While the surplus objectives have been broadly met, the slippage against the expenditure objective implies that the opportunity for larger reduction in the tax burden has been missed. This needs to be judged in the context that the tax burden in Finland is amongst the highest in the OECD with widespread agreement on the need to reduce taxes, particularly on labour. Thus economic and political pressures to reduce taxes are providing additional impetus to restrain spending. Tax revenue is equivalent to more than 45 per cent of GDP, making Finland particularly susceptible to tax-related inefficiencies and more vulnerable to tax competition.⁷ Increasing tax-base mobility has already resulted in strong competition for some tax bases, which is likely to have been one consideration leading to the introduction of the dual income tax system. Tax competition also adds to the argument that labour-income tax and employer contributions should be reduced. In addition, tax harmonisation and freedom in the movement of goods in the European Union will continue to force reforms. In particular, there is pressure to reduce the tax levels on alcohol and a recent decision from a case brought to the EU court relating to the taxes on car purchases will also result in reduced revenue.⁸

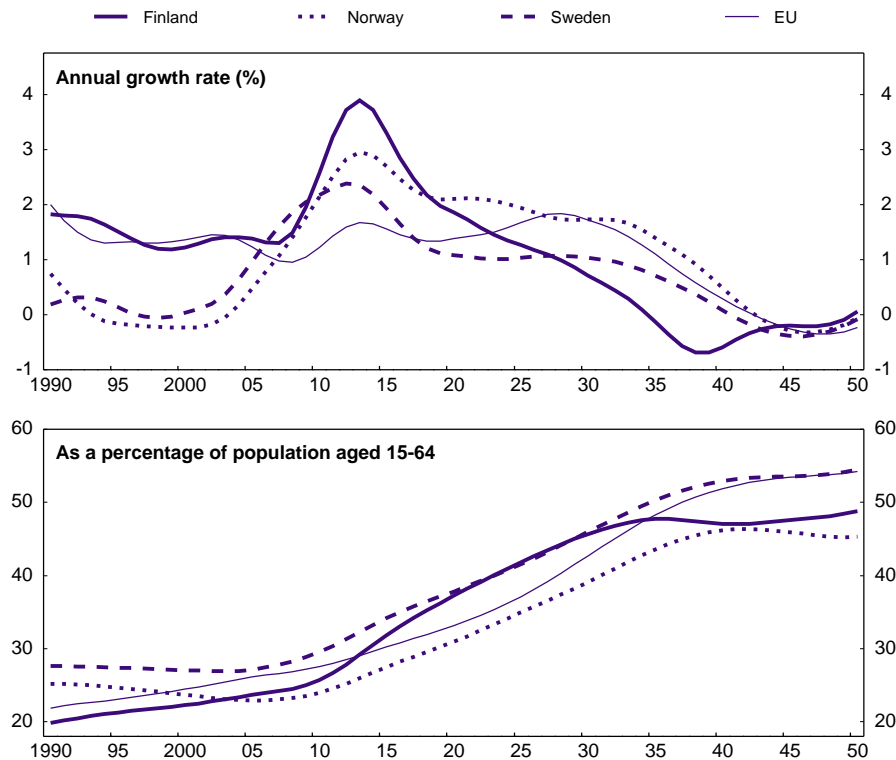
Spending pressures due to ageing are rising

8. Population ageing is among the most rapid of any OECD country and will have a major impact on public finances. The old-age dependency ratio (those over 65 years as a percentage of the working age population) will rise from 23 per cent currently to about 37 per cent by 2020, the fastest rise in the OECD area. Ageing will continue with the dependency ratio reaching 45 per cent around 2030, although thereafter the dependency ratio will plateau at just under 50 per cent over the period 2040-50 (Figure 3).

9. Recent comparative exercises suggest that the rise in total old-age-related spending (as a percentage of GDP) in Finland is expected to be the fourth steepest in the OECD (OECD, 2001a) (although they did *not* take into account the effect of the recent pension reform). Moreover, calculations using the same spending projections as an input suggest that, at least according to one measure of fiscal sustainability (measuring the immediate and permanent adjustment of the primary surplus required to avoid further fiscal policy changes), Finland did have one of the weakest positions in the OECD (Frederiksen, 2001).⁹

10. To consider the broader fiscal impact of ageing it is useful to consider recent long-term scenarios by the Ministry of Finance (2002b) and Bank of Finland (Kinnunen, 2002). Both scenarios are broadly consistent with the objective of maintaining a substantial general government surplus over the course of this decade, although thereafter there is some deterioration in the fiscal position. They also allow for the effect of ageing on public expenditure, particularly on health and pensions, with the pension reform assumed to have a favourable effect on raising the employment rate, while non-ageing related (primary) public expenditure remains a stable share of GDP. Both scenarios demonstrate that while any major deterioration in the fiscal position may be contained by the pension reform, significant tensions remain. In particular, the Ministry of Finance projection implies a stable aggregate tax rate (but with a steady deterioration in the debt ratio) and the Bank projection implies a rising tax rate, whereas significant improvements in the labour market are likely to require a *falling* tax rate. While such long-term scenarios are inevitably sensitive to a number of difficult assumptions, the results underline the merits of continuing efforts to reduce public expenditure as a share of GDP.

Figure 3. **The demographics of ageing in Finland**
Population aged 65 and over¹



1. Data for the period 2001-50 are medium variant population projections.
Source: United Nations (2001), *World Population Prospects 1950-2050 (The 2000 Revision)*.

Maintaining aggregate fiscal discipline

11. Fiscal discipline and policy goals concerning public expenditure are principally achieved through medium-term spending rules set out in the Government Programme, a document issued at the beginning of the term of office. As explained in Box 2, the annual Operating and Financial Submission documents include medium-term plans by spending ministries but little use is made of them, except for the first year. A move towards a more genuine, permanent medium-term rolling budget should be considered to augment the fiscal guidelines provided by the Programme (OECD, 2002c).¹⁰ The architecture of government financing might also be altered to deal with the problem of lack of flexibility and co-ordination in spending across ministries — so-called “stovepipe” government. While this is a common and not easily eradicated issue, it is often amplified where there are coalition governments due to increased rivalry between ministries. There is some recognition of this by the government. In 2001 a ministerial steering group produced a report which advocated stronger cross-administrative capacities, suggesting that programmes cutting across ministries could be placed in the Prime Minister’s Office and run by specially appointed ministers (Ministry of Finance, 2001a).¹¹ Another budgeting issue is that efforts should continue to introduce more purpose to the first round of parliamentary discussions in the annual budget process (Box 2).

12. Moreover, the Government Programme's spending rules should be enhanced. First, fiscal discipline could be strengthened by a rule that stipulates that, in general, spending decisions within a budget year need to be offset by spending cuts elsewhere — rules like this have proved successful in other countries, notably the United States. Second, the inclusion of interest payments in the target to maintain government expenditure constant at the 1999 level has implied leeway to spend more on primary outlays than initially intended as spending on interest payments has declined. Finally, and maybe most importantly, numerous areas are identified below where spending should be scrutinised carefully, implying that the government target to cap real spending could have been more ambitious in the past and should be more so in the future.

13. There is also room for greater clarity in the technical details of the spending rules. For example, details on the deflator used to evaluate whether real spending has remained on course are not readily available and there is no explicit commitment to consistency in the deflation method over time. This criticism aside, central government accounting generally follows good practice. Accrual accounting has been widely adopted to avoid the misperceptions of budgetary situations that can arise in cash accounting. And long-run budget simulations have been extensively used to assess the consequences of ageing. These simulations incorporate generational accounting techniques that highlight the impact of shifts in the demographic structure on revenues and expenditure (Ministry of Finance, 2002c).

Box 1. The annual budget process

The central government's annual budget process consists of a series of interactions between the Ministry of Finance and the spending ministries that begin in January and end in September when the budget proposal is presented to Parliament for discussion. Parliament generally passes the budget in December ready for the start of the financial year in January (Table 2). A key event in the budget calendar is the late-August Government Budget Session when budget decisions and documentation are finalised in a meeting between the Minister of Finance and spending ministries. Parliament tends to pass many amendments to the proposed budget but they tend to be minor.¹ By convention, there are at least two supplementary budgets over the course of the year. According to the Ministry of Finance, to-date these have not been a source of significant relaxation of fiscal discipline and typically perform a mechanical role, such as the correction of estimated appropriations to account for changes in economic developments.

The spending rules laid down in the Government Programme need to be strongly applied to the annual budget process to ensure that medium and long-run considerations are taken on board. Although the initial *Operating and Financial Submissions* made in January outline spending for the three years beyond the budget year, they do not play a significant role and are changed for each budget with little reference or reconciliation with the previous year's figures.²

Concrete parliamentary involvement in the budget process effectively occurs only once, when it assesses the budget document in the autumn. Although there is a discussion of budget policy in April, no decisions are made and it serves more for parliamentarians to make a case for additional spending. The somewhat inactive role of these discussions suggests that maintaining two ministerial submissions, one in January and one in May, is perhaps unnecessary (see OECD, 2002c). After a vote in 2000 concerning the annual aggregate spending limit decision, the spending limits in the budgets from 2001 onwards have been discussed on the basis of a so-called Prime Minister's announcement, without a vote of confidence.

-
1. The government's budget proposal is assessed by the parliamentary Finance Committee, which conducts hearings and then makes a report which forms the basis of the final parliamentary discussions prior to the vote on the budget.
 2. The determination of the state budget one year at a time is written into the constitution (OECD, 2002c).

Table 1. **The annual budget process**

Central government	
December-January	Spending ministries send preliminary budget proposal, plus plan for the following three years to the Ministry of Finance, referred to as the Operating and Financial Submissions.
January-February	Discussions between Ministry of Finance and spending ministries.
March	<i>Government spending limits discussion</i> — Government decides spending limits for each ministry.
April	Parliamentary discussion of budget policy.
May	Spending ministries submit budget drafts to Ministry of Finance.
July	Draft budgets by spending ministries and first draft of the total budget prepared by the Ministry of Finance released publicly.
Mid-August	Bilateral budget discussions between Minister of Finance and other ministers.
Late August	<i>Government budget session</i> — Final budget proposal decided.
Early September	Budget proposal presented to Parliament.
1 January	Start of fiscal year.
Parliamentary timeline	
September to early November	Parliamentary Hearings on the budget proposal, Sectoral Committee analysis.
November	Finance Committee sections draft and submit reports.
End November	General Finance Committee debate and amendments. Completion of Finance report.
Early December	Parliament amends and passes budget.

Source: Ministry of Finance.

Transfers: key reforms in pensions are underway

14. Transfers are an important component of Finland's commitment to a system of public support that ensures relatively high minimum living standards. As in other countries, there is room for improving existing transfer schemes with regard to issues such as targeting, poverty traps, dead-weight loss and so on. In particular, the recent *Survey* stresses that some of the transfer schemes to the unemployed require attention. At the same time, while transfer schemes can have problems, in some circumstances they can be preferable substitutes to public service provision. In particular Finland could make more use of vouchers, for example in childcare and elderly care, so as to put choice more directly in the hands of the user and generate competition between producers.

15. General observations aside, the most immediate issue in the sphere of transfers is the need to address the fiscal implications of ageing. The authorities have long recognised this and the sharpness and imminence of the demographic transition in Finland has made these issues urgent. In early 2003 a package of reforms of the pension system was legislated that principally to increase the incentives for older workers to remain in employment and thereby improve the sustainability of the pension reform. The following discussion examines the reform in detail.

The current system and the pension reform

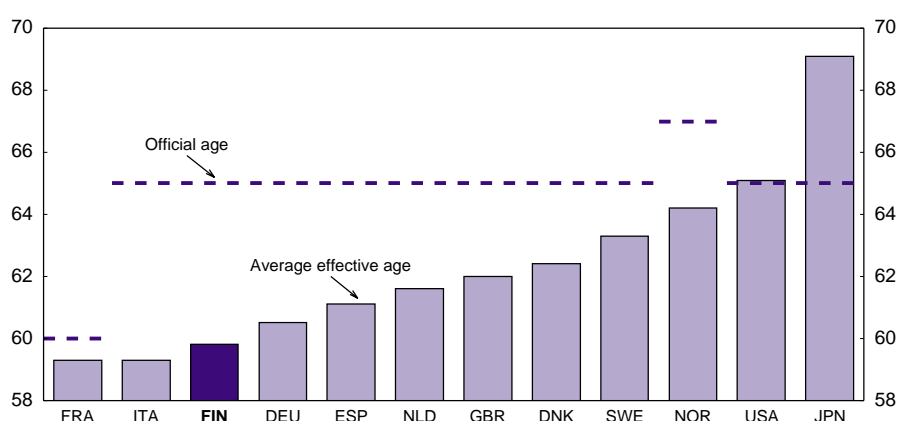
16. Currently, there are two old-age pension schemes: the national pension scheme and the earnings-related pension scheme. The national pension scheme guarantees a minimum income for resident persons who are not entitled to an earnings-related pension, or to those for which the latter is small. The earnings-related pension consists of all the pensions that have accrued from each employment contract and from self-employment. Benefits are based on the number of years in employment, the accrual rate and the “pensionable wage” which is based on the gross wage net of employee’s pension contributions. The system is of a defined-benefit nature, based on tripartite agreements and governed by several pension acts. It is financed by employer’s and employee’s contributions and consists of a mix of a pay-as-you-go and a funded system. The employer’s and employee’s contributions are used directly to pay for current pensions and indirectly to fund future pension payments. Pre-funding is collective and, thus, has no effect on the size of the pension, but it affects the future path of contribution rates. The reform is focused on the earnings-related pension scheme and the various options to retire early.

17. The reform¹² was voted by parliament in early 2003, but will only affect pensions as from 2005. The current legislation so far only concerns pensions for those working in the private sector, although reform of public sector pensions is likely to be agreed in 2003 and is expected to be along similar lines.

18. A major aim of the reform is to raise the average age of retirement which is currently only 59, compared to an official statutory age of retirement of 65. Eligibility for retirement in the current system is from the age of 60, with the level of pension payments subject to an actuarial reduction for every month below 65, although the proportion of pensioners taking this option is relatively small. Of much greater importance are various early retirement schemes, which accounted for about three-quarters of all new private sector retirees in 2001, the largest of which are the disability pension and the unemployment pension. While it is not unusual among OECD countries for the average age of retirement to be below the official statutory age (which is usually 65), Finland is among a minority of countries for which the average effective age is below 60 (Figure 4). The reform follows the broad recommendations of previous *Surveys*¹³ by creating better incentives to stay at work longer and by reducing early retirement options. These two aspects of the reform are considered first, with details of the reform presented in Box 3.

Figure 4. Retirement age in selected OECD countries

Males, 1994-99¹



1. 1993-98 for Netherlands and Germany.

Source: P. Scherer (2002), "Age of Withdrawal from the Labour Force in OECD Countries", *Labour Market and Social Policy Occasional Papers*, No. 49, OECD.

Box 2. The pension reform

There are a number of important elements in the current reform package:

- *A flexible retirement age between 62 and 68 will be introduced, with a sharp rise in the accrual rate after 62.* From the age of 63 pensions will be calculated according to the accrued rights. Between 62 and 63 the pension will be reduced by 0.7 per cent for each month of early retirement prior to 63. The accumulation rate will remain at 1.5 per cent a year between ages of 18 and 52, increase to 1.9 per cent between 53 and 62 and then rise to 4.5 per cent between 63 and 67 (this compares to the current rates of 1.5 per cent between ages 53 and 59 and 2.5 per cent for those aged over 60. The ceiling on the maximum pension will be abolished.
- *The pension base will be determined by earnings over the entire career* rather than over the last ten years of each employment relationship as at present. As well as being actuarially “fairer”, this should promote labour market flexibility, as under the current system changing jobs is likely to penalise the final pension, particularly if wages were rising over the course of a career. Pensions will start accumulating after the age of 18 until the age of 68. They will also accrue during some non-working periods, *e.g.* for students who graduate for a maximum of five years and for parents who stay home to take care of children aged under three. For both groups the accumulation is based on an income base of no more than EUR 500 a month.
- *The system will adjust to future increases in life expectancy* from 2009 by applying a “life expectancy coefficient” to the calculation of pensions. This coefficient is a means of taking into account that people will tend to live longer in the future than today and so provide a mechanism for keeping total pension costs in check.
- *The method of indexation will change.* There are two indices in the pension system. The first adjusts past earnings to the present level when computing the pension at the time of retirement. This “wage multiplier” puts a weight of 80 per cent on wages and 20 per cent on the consumer price index. The other index aims at keeping the purchasing power of pensions intact. This index will have a weight of 80 per cent on consumer prices and 20 per cent on wage and salary earnings.
- *The structure of employees' pension contributions will change.* Employees aged 53 or over have to pay a 27 per cent higher employees' pension contribution than those aged under 53. Currently, the contribution is 4.4 per cent of earnings irrespective of age.
- *Pension funding will be strengthened from 2003 onwards* so that additional funding of 7.5 per cent of the insured wage sum will be available by 2013.
- *Options for early retirement will be further curtailed.* The most important changes are to the unemployment and disability pension, which accounted for 5 and 25 per cent of all pensioners in 2001, respectively, and are discussed further in the main text. In addition the minimum age for a part-time pension, which accounts for 2½ per cent of all pensioners, is to be raised from 56 to 58, while the amount of old-age pension accumulated during part-time retirement will be halved.

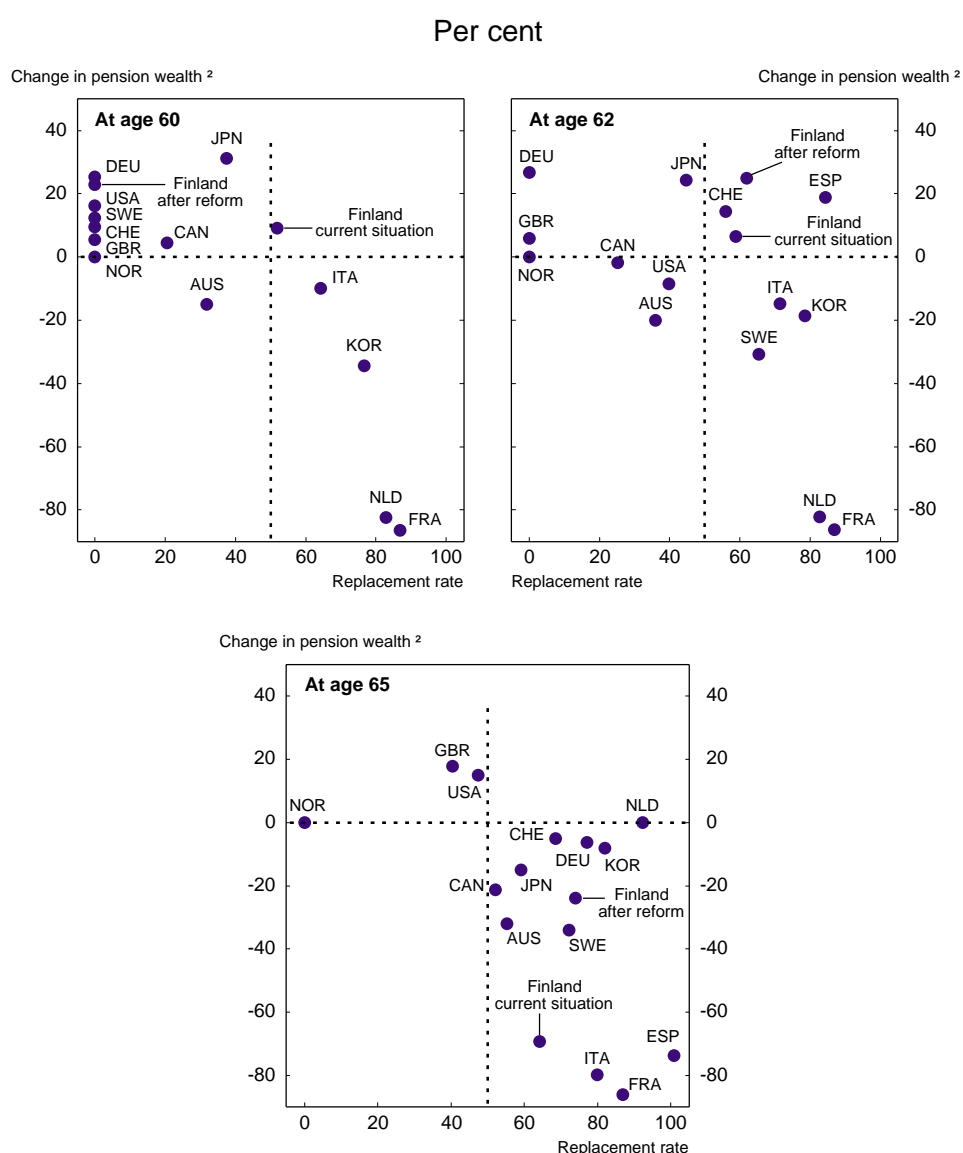
* Sources: Ministry of Finance, the Central Pension Security Institute and the Finnish Pension Alliance TELA.

Increasing incentives to retire later

19. Previous OECD work¹⁴ has established that retirement decisions can be strongly influenced by fiscal incentives, which can be separated into two components. The first is the replacement rate — *i.e.* the pension received as a proportion of working income prior to retirement. The higher the replacement rate, the greater the incentive to retire. The second component is the change in net pension wealth from working an additional year and so forgoing an extra year of pension and paying a further year of contributions. If as a result of working an extra year net pension wealth remains constant then the system is neutral, but if it falls then the system imposes an implicit tax on working.

20. For Finland, the net replacement rate under the current system for a worker receiving an average production wage in his sixties considering retirement is about 60 per cent.¹⁵ This corresponds roughly to the median across a range of 15 OECD countries shown in Figure 5, and is certainly less generous than in some of the major European countries. Given that under the present pension system, retirement before or after the official retirement age of 65, is penalised or rewarded at a rate calculated to be actuarially fair, it might be expected that the system is broadly neutral as regards the additional pension wealth from working an extra year.¹⁶ However, this is not the case because there is a ceiling on the maximum pension that can be earned and a worker with a full career history is likely to run into this ceiling in his mid-sixties.¹⁷ Thus, under the current system there is progressively an implicit tax on pension wealth for a typical worker in the mid-sixties — *i.e.* pension wealth begins to fall as a result of working an extra year — that will increase the incentive to retire before the age of 65.

Figure 5. Financial incentives to retire under regular retirement schemes¹



1. Calculations are for a full-career worker with average earnings. The higher the replacement rate and the greater the fall in pension wealth (*i.e.* the more south-easterly the co-ordinate) the greater the incentive to retire.

2. Changes in pension wealth as a percentage of net annual earnings.

Source: OECD (2002b) and OECD calculations for effect of reform.

21. Preliminary OECD calculations illustrate the impact of the pension reform in terms of its effect on these incentives (Figure 5). Mainly as a consequence of abolishing the ceiling on the maximum pension and the higher accrual rates earned from the age of 63, the change in pension wealth for workers continuing to work in their sixties will be much more positive. Indeed, for a worker in their early sixties the implied change in pension wealth from continuing to work for an additional year will be among the most favourable of the 15 OECD countries considered in Figure 5. Most importantly, the absence of a ceiling will avoid the current situation where continuing to work can lead to a sharp fall in pension wealth. In terms of the effect on the replacement rate, because old-age pension can no longer be drawn at the ages of 60 and 61 there will also be little incentive to retire on an old-age pension before the age of 62. From the age of 62 the reform is likely to raise replacement rates, which will, to some extent, counteract the incentive to continue working. Estimates suggest that the reform would lead to an average 15 per cent increase in pension levels (Central Pension Security Institute, 2002), although in these calculations the estimated (positive) effect of longer working careers is included, but the negative effect of the life expectancy adjustment is not (see also Annex).

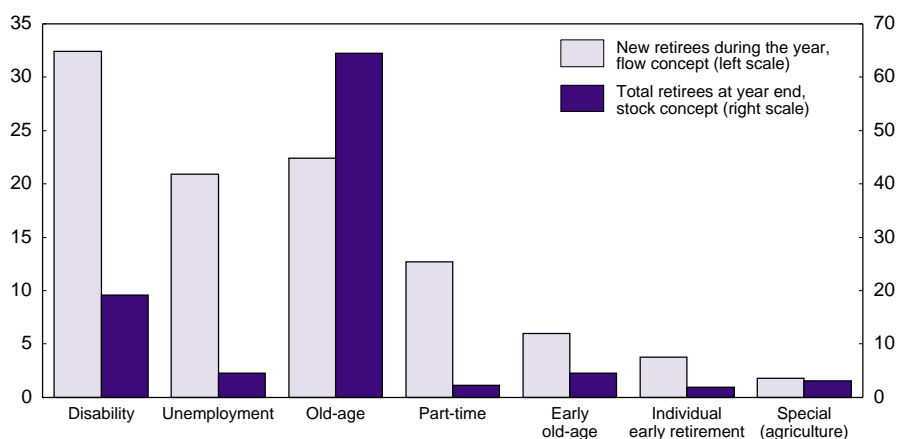
22. The net result of these conflicting effects on incentives is difficult to judge.¹⁸ It is likely that the “larger” reduction in the implicit tax on pension wealth and zero replacement rate at ages of 60 and 61, will dominate the “smaller” increase in the replacement rate from age 62 (where the relative size of these movements is judged according to the existing range of country experience represented in Figure 5). However, for these incentive effects to translate into a higher average age of retirement it is essential that alternative pathways to early retirement are also curtailed.

Reforming early retirement schemes

23. Recent work across a range of OECD countries has found that, in general, old-age pension systems considered in isolation do not usually provide strong incentives to retire early,¹⁹ but that other early retirement schemes, such as disability, unemployment-related or other special early retirement schemes, often do. The operation of early retirement schemes is particularly important in explaining the relatively low retirement age in Finland. During 2001 only 22 per cent of all new retirees retired at the age of 65 to take the full standard old-age pension, with a further 6 per cent retiring early to take a reduced old-age pension (Figure 6). The remainder retired under various early retirement schemes, the most important being disability and unemployment pensions, which accounted for 32 and 21 per cent of all retirees, respectively.²⁰ The fiscal incentives to use unemployment and disability benefits as an alternative pathway to early retirement are quite strong (Figure 7). A person aged 55 receiving an average wage who stops working, either as a result of disability or unemployment, will face a quite high initial replacement rate²¹ of about 60 per cent, and the change in pension wealth from an additional year of work is strongly negative. Moreover these results generalise across all older ages up to the official age of retirement at 65 (OECD, 2002b). An important component of the reform package is, therefore, a range of measures to curtail the use of early retirement schemes. The two main early retirement schemes, based on unemployment and disability, are described below together with the effect of the reform.

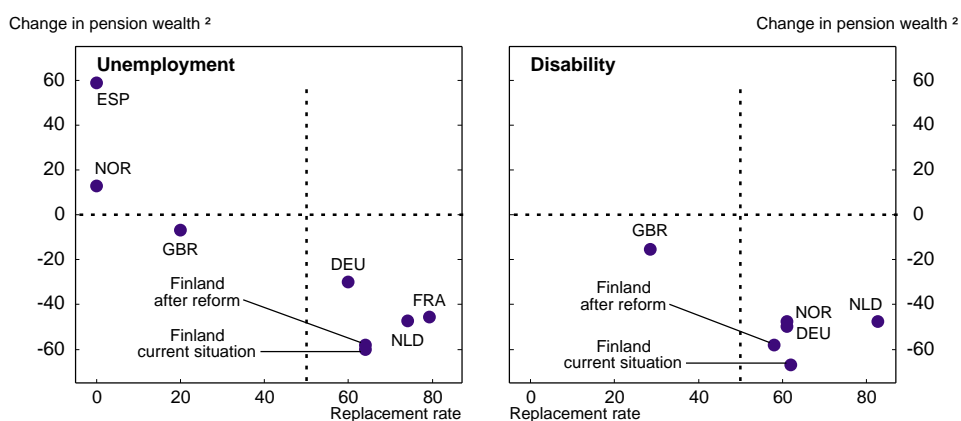
24. Early exit from the labour market is currently facilitated by the so-called “unemployment pipeline”, whereby from the age of 57 the standard unemployment insurance period is followed by an extension to age 60, finally leading to an unemployment pension. An unemployment pension is paid to those aged 60 to 65 who have been long-term unemployed and received unemployment benefits for the maximum period, which is 500 days. This means that the “pipeline” leading to an unemployment pension already starts at the age of 55. Evidence of the distortionary effect this has on incentives can be seen from the sharp rise in age-specific unemployment rates from the age of 55 (Rantala, 2002). Moreover, the incidence of unemployment is calculated to be about twice as high for those who are old enough to qualify for the “pipeline”, compared to those who are immediately below the age of qualifying for it (Ilmakunnas and Rantala, 2002).

Figure 6. Retirement by pension scheme¹
Per cent of total, 2001



1. Public and private sector, including both earnings-related and national pensions.
Source: Central Pension Security Institute.

Figure 7. Financial incentives to retire under unemployment and disability schemes¹
For a 57 year-old, per cent



1. Calculations are for a full-career worker with average earnings. The higher the replacement rate and the greater the fall in pension wealth (i.e. the more south-easterly the co-ordinate) the greater the incentive to retire.

2. Changes in pension wealth as a percentage of net annual earnings.

Source: OECD (2002b) and OECD calculations for effect of reform.

25. Following the reform the minimum age for qualifying for the “unemployment pipeline” will rise to 57, and the unemployment pension will be abolished and replaced by an extension of unemployment benefits from the age of 60 up to 65. However, these changes only apply to those born after 1950, slowing the effect of the reform. The main effect of the reform should be to lower the incentive to stop working and claim unemployment benefit for those aged 55 and 56. The effect of the reform on those aged 57 and over is less clear cut. On the one hand, unemployment will typically imply a similar net replacement rate to the unemployment pension and so incentives to retire may be little changed. On the other hand the change in pension wealth from continued work is likely to be less unfavourable as a result of the reform.²² The overall effect is likely to be some reduction in the use of unemployment as a pathway to early retirement, although for those aged over 57 the size of the effect may be marginal.

26. There are currently two forms of disability pension. The main disability pension is awarded to any person aged 16 to 64 who is certified as being incapacitated for work. In addition there is an individual early retirement pension that is available to those aged 60 to 64, for which the medical eligibility conditions are less strict. The reform will phase out the individual early retirement scheme, which is in line with previous *Survey* recommendations. Nevertheless, there is still a concern that the curtailing of other paths to early retirement (including the “unemployment pipeline”) may put further pressure on disability pensions. In particular there has been a link between disability and unemployment pensions in Finland during the 1990s, with the number of disability pensions declining while the number of persons in the unemployment pension pipeline increased (Gould and Nyman, 2002). If this link also works the other way round, the effects of the reform on raising both the average effective retirement age and aggregate employment could be significantly dampened. Indeed there are a number of OECD countries, perhaps Norway, Netherlands and Sweden being the most relevant examples, where possible abuse of disability pensions have effectively become a form of unemployment benefit with an adverse effect on labour market performance.

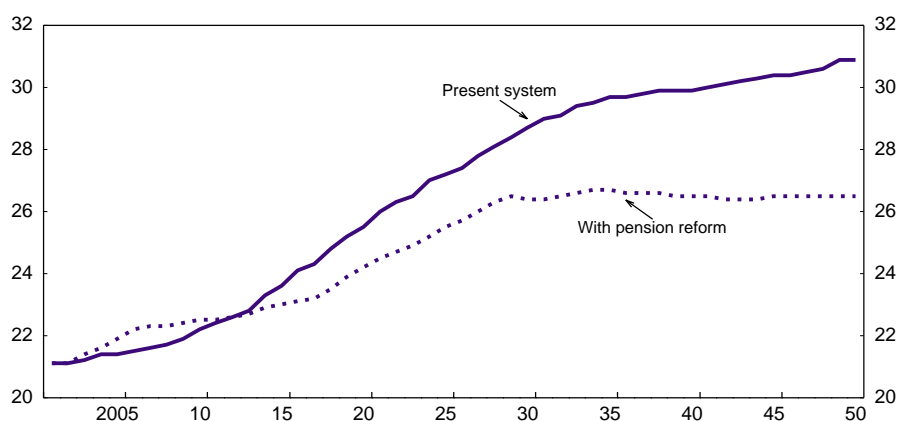
More could be done to raise the demand for older workers

27. While much of the preceding analysis has focused on the supply-side financial incentives of older workers, it is also important to ensure that demand for older workers is not impaired. Wages need to be flexible to adjust to productivity, in particular to avoid widespread occurrences of labour demand falling because declining productivity with age is not matched by appropriate wage adjustment. In this respect, a positive aspect of the reform is that, because pensions will be calculated on the basis of lifetime earnings, they will be less closely linked to wages just prior to retirement, suggesting that resistance to continue working at a lower wage might be reduced. Training of older workers to maintain marketable skills is also important. The tapering off with age in the incidence of job-related training, is less marked in Finland than in most other OECD countries (OECD, 1999), although it is greater than in other Nordic countries. However, the recent setting up of the National Programme on Ageing Workers has raised awareness of these and other issues related to an ageing workforce. Perhaps the most obvious weakness of the existing pension system in terms of its effect on the demand for older workers, is that employers’ social security contributions rise with the age of their employees to finance increased risk of unemployment and disability.²³ The previous *Survey* recommended pooling this risk by spreading the increased costs across the contribution rates of all employees and so removing an important disincentive to hire or retain older workers. The reform will not, however, address this problem. Indeed it could exacerbate it, because employee contributions will be higher for older workers and it is unclear where the effective incidence of such increases will finally lie.

Pension contribution rates will still need to rise substantially

28. Overall, the reform is officially estimated to halve the required increase in contribution rates expected by 2050 (Figure 8), with almost two-thirds of the reduced pressure on pension costs being attributable to the life expectancy adjustment (Table 3). Nevertheless, contributions will still need to be significantly higher, by an estimated 5½ per cent of wages on average over the period 2030 to 2050, than at present. Moreover, the effects of the reform over the next thirty years are more modest — for example contribution rates after the reform are estimated to increase by 5¼ rather than 7½ per cent of wages by 2030 — because the phasing in of various components of the reform means that the largest cohorts (the baby boom generations) are not strongly affected. A major reason why the expected increase in the age of retirement does not have a greater effect on lowering the required increase in contributions is that average pension levels are expected to rise. Not only might this have an adverse effect on incentives to extend working life, as discussed earlier, but it also directly counteracts the objective of putting the system on a sound financial footing. In this light some elements of the reform seem overly generous, especially given the uncertainty about the effects on employment rates of older workers that will be required to (partially) offset these higher costs. In particular, increasing the accrual rate from the age of 52 and extending the accumulation period to non-paid periods (such as periods of study), will probably have little effect on incentives to work longer, but does have a significant cost. Indeed, without these two elements of the reform three-quarters of the expected increase in pension costs (equivalent to 3¾ per cent of total wages) between 2020 and 2050 would have been avoided (Table 3).

Figure 8. **Pension contribution rates**¹
Per cent of wages²



1. Employment pension contribution of wage earners.

2. Annual sum of gross wages.

Source: Central Pension Security Institute.

Table 2. Components of pension costs
Per cent of wages¹

	2002	2020	2030	2050
Without reform	17.7	27.8	32.3	35.7
With reform	17.7	26.3	30.1	31.4
Difference	..	-1.5	-2.2	-4.3
<i>of which:</i>				
Life expectancy coefficient	..	-0.2	-0.9	-2.5
1.9% accumulation rate	..	0.5	0.8	1.1
Non-wage periods (studies, etc.)	..	0.8	1.5	2.7

1. Annual sum of gross wages.

Source: Central Pension Security Institute (2002).

Summary of the pension reform

29. The pension reform includes several bold elements — particularly the higher accrual rates for older workers and the abolition of the pension ceiling — that together with the further curtailment of early retirement options are likely to increase incentives to work longer. Official estimates suggest that the current reform proposals will raise the average retirement age by 1½ years by 2050 (Takala and Uusitalo, 2002). Taken together with the effects of the earlier reforms the rise could be double that and so consistent with the government's long-term aim of raising the retirement age by 2-3 years. Other components of the reform package are also to be welcomed. In particular the longevity adjustment, which bolsters the sustainability of the system against one of the major demographic uncertainties, and the move to assessing pension rights on the basis of earnings over the whole career, which should improve labour market flexibility. Nevertheless, the phasing in of the reform and the overall increase in generosity will limit the improvement in the sustainability of the system. It also remains to be seen how far tightening access to some early retirement schemes and discontinuing others will put more pressure on the remaining schemes, which could seriously undermine the beneficial effects of incentives to work longer.

Public expenditure issues in local government

30. Similar to the other Nordic countries, government in Finland is highly decentralised, with local government delivering a large share of public services. A total of 448 municipalities are responsible for all public health care services, primary and secondary education, as well as amenities such as water, sewerage, local transport and roads (Table 4). Municipalities are also responsible for providing “bottom rung” social assistance for those who do not qualify or who have used up their rights to the benefits provided by the Social Insurance Institution of Finland, KELA.²⁴ Although there is a layer of regional government, its role is confined to co-ordinating regional planning and aid.²⁵

Table 3. The distribution of spending responsibilities between central and local government

Activity	Provision	Comment
Municipality responsibilities		
Health and education		
Primary health care	Municipality-run clinics sometimes with co-operation between clinics. General practitioners and dentists employed by the municipalities.	Payment of general practitioners is based on a national compensation scheme.
Hospital care	Municipalities purchase hospital services from a joint municipal board ("Hospital district").	The 20 hospital districts are owned by municipalities. Competition between the districts for customers is limited.
Primary and secondary education	Municipality-run schools. Vocational schools are usually run by joint municipality boards. In addition there are some private and state schools.	The state pays about half of the expenditure of primary and secondary education in the form of government transfers (state grants), which are calculated by differentiated unit prices per student.
Polytechnics ¹	Polytechnics are mainly municipally run or private. They are run by one municipality (7), joint municipality (11), limited companies (8) or foundations (3).	The polytechnics receive their core funding as state grants (which consist technically of two parts: the state share and the share of local governments).
Social services		
Child care	Municipality-run day-care centres and municipality-organised (and subsidised) "family" day care.	Child care provision is governed by national rules about charges for child care. Parents can take a cash payment in lieu of municipality-provided care but only a very small minority of households choose this option.
Elderly and disabled care	Municipalities are responsible for the majority of elderly care outside of hospitals.	..
Other social services	Socially targeted housing and general social assistance.	..
Other services		
Water, waste and energy	Municipalities purchase services from providers.	Municipalities are commonly the (sole) owners of the water provision service. Recent changes to regulations mean that water charges can no longer be treated as general income by municipalities.
Transport	Municipalities purchase services from providers.	Competitive tendering for bus services is common.
Infrastructure	Supervision of land use and building activities, road maintenance and construction (except national highways).	..

Table 3. The distribution of spending responsibilities between central and local government (cont.)

Activity	Provision	Comment
Central government (and, KELA, the Social Insurance Institution) responsibilities		
Health	Reimbursements for certain medical treatments are administered via KELA.	Reimbursements are financed by employers, employees and also by central government.
Universities ¹	All 20 universities are owned by the state.	The universities receive their core funding from the state budget. About 30 per cent of their income is derived from commercial sources or academic projects outside the universities.
Student financial aid	Paid and administered by KELA.	Student financial aid consists of a study grant, housing supplement and government-guaranteed loan. It is payable for students in upper secondary and tertiary as well as adult education.
Social insurance	Unemployment, sickness, disability, family benefits schemes are administered by KELA and unemployment insurance funds.	..
Public-employment services and active labour market policies (ALMPs)	The public employment service incorporates the administration of ALMPs and is run via a nationwide network of offices.	The majority of the subsidised jobs which form part of ALMP policy are channelled towards municipalities.

1. Tertiary education consists of two pillars: polytechnics and universities.
Source: OECD.

Municipality financing: some aspects of the system require attention

31. Municipalities have considerable freedom in how revenue is spent and, in principle, reasonably strong influence on the size of revenue through their right to set the flat rate local income tax but also by attracting corporate tax base (Table 5). The current funding system was put in place as part of major reforms in 1993, prior to which central government had a more direct influence on spending via earmarked grants.²⁶ About half of municipal revenue comes from taxes, a quarter from charges for services (mainly water, sewerage and electricity) and about one-sixth from central government block grants (Figure 9 and Table 5). The main tax revenue comes from the flat tax on household income. Municipalities also receive a share of the local corporation tax. Although the share is fixed by central government, revenue nevertheless varies widely across municipalities as well as over the business cycle due to variation in the tax base. A large share of revenue can be treated in a general account by the municipality, thus facilitating account management and flexibility in resource allocation; exceptions are revenue from water, sewerage and electricity charges which since 2002 must be in separate accounts. A potential source of budgetary abuse by municipalities lies in the use of discretionary central government support to those municipalities in financial difficulties. Although there have been no signs of widespread abuse of this system as an implicit financial guarantee by municipalities, the authorities should remain vigilant to adverse developments.²⁷

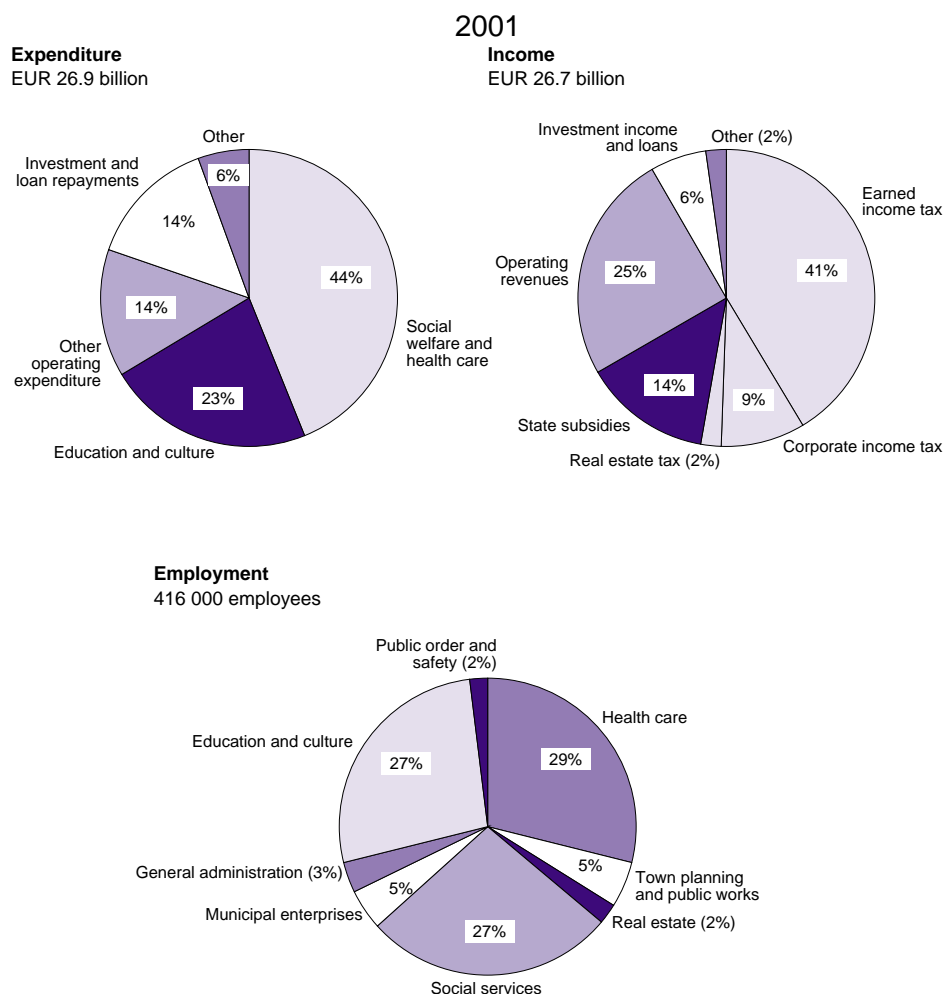
Table 4. **Financial resources of municipalities**

Resource	Comment
Income from taxation (about 50 per cent of revenue on average)	
Household income tax	Municipalities receive directly the revenue from a flat rate tax levied on households that they can set at any level. A large majority of municipalities charge between 18 and 19 per cent.
Corporate income tax	Municipalities receive (in 2003) 19.75 per cent of the corporate income tax revenue within the municipal boundary. This can vary significantly over time, creating problems for financial planning.
Property tax	Property taxes are subject to upper and lower limits set by law.
Tax equalisation	If a municipality's potential tax revenue per capita (the tax-base per capita times the national average rate of municipality tax) is: <ul style="list-style-type: none"> – <90 per cent of the national average, then it receives the difference (around three-quarters of municipalities in this group). – >90 per cent of the national average, then it pays 40 per cent of revenue in excess of the 90 per cent threshold.
Block grants from central government (about 15 per cent of revenue on average)¹	
Ministry of Social Affairs and Health	For health the grant is a percentage of estimated health costs based on population characteristics including morbidity, and for social affairs the grant is a percentage of estimated social welfare costs based on population characteristics including the level of unemployment.
Ministry of Education	The grant is a percentage of estimated costs based on student numbers.
Fees and user charges (about 25 per cent of revenue on average)	
Water and sewerage	From 2002 a separate account for water and sewerage services must be maintained.
Energy	..
Other	Includes fees for primary health care. Charges for hospital care go to the hospital districts and so do not enter directly into the municipal accounts.
Other budget resources	
Bank loans	Municipalities are supposed to maintain a medium-term balance between current receipts or disbursements. Many borrow to finance building projects while borrowing to help cover running expenses is rare.
Off-budget resources	
Subsidised jobs	Municipalities are the major clients for the central government's subsidised jobs.

1. The annual block grants are determined by a special committee comprised of representatives from the municipalities and central government.

Source: OECD.

Figure 9. Municipality income, expenditure and employment

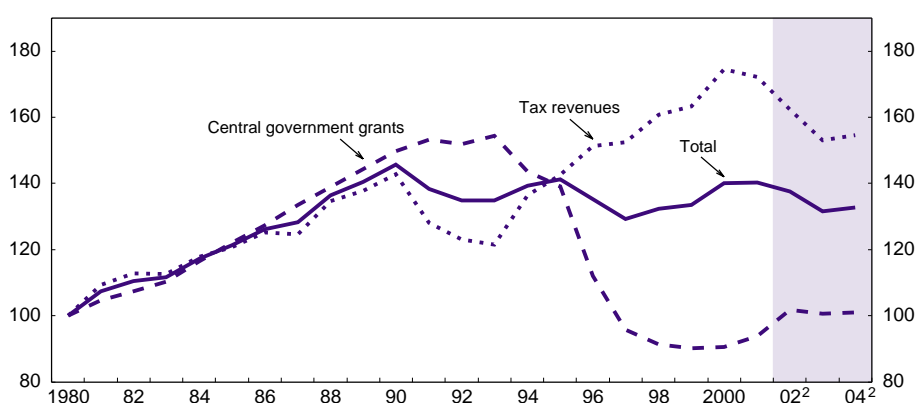


Source: The Association of Finnish Local and Regional Authorities.

32. Although the municipal financing arrangements are *prima facie* laudable for advocating a strong role for local government in public expenditure, the system faces certain practical problems. One issue is that municipalities can encounter considerable fluctuations in municipal revenue, mainly due to variations in the tax base over the business cycle. Indeed the Ministry of Finance has calculated that about 40 per cent of the decrease in corporate tax revenue that occurred between 2000 and 2002 is attributable to weakening macroeconomic conditions. Over the 1990s municipal tax revenue rose strongly and was countered by cuts in central government grants and this resulted in relatively stable income for municipalities (Figure 10).²⁸ Although some Ministry of Finance documents seem to suggest that this adjustment was fully intended (Ministry of Finance, 2001b), there is no automatic mechanism via the block grant funding formula, or official discretionary policy to protect municipalities from cyclical variation in revenue. However the fact that this “policy” is not explicit and widely broadcast to municipalities may add uncertainty to municipal decisions and lead to inappropriate contingent budgeting by them. A need to increase the predictability of public funding is acknowledged in a recent Ministry of Finance report (Ministry of Finance, 2002c). The authorities have also recognised the need to reduce the exposure of municipalities to corporation tax revenue, which is one of the main sources of fluctuating income. In the latest of a series of cuts, the municipality share of 23¼ per cent of corporate tax revenue will be reduced to 19¾ per cent in 2003.

Figure 10. **Municipality revenue: the roles played by tax and central government grants**

Volume indices, 1980 = 100¹



1. 1995 constant prices using the deflator for government final consumption expenditure.
2. Estimates for 2002 and projections for 2003-04.

Source: Statistics Finland (2002), *National Accounts 1993-2001* and The Association of Finnish Local and Regional Authorities.

33. The tax equalisation scheme (Box 4) is frequently criticised. One problem is that there is a degree of uncertainty about the level of equalisation payments and they are made with some delay, both of which can amplify the problem of unpredictable and fluctuating revenue.²⁹ Even after equalisation, important revenue differences remain between many municipalities; most significantly between the large urban centres and the rest of the country. For example, before equalisation, tax revenue in Helsinki was nearly EUR 3 900 per capita in 2001 compared to around EUR 2 200 in one of the larger recipient municipalities, such as Joensuu. Equalisation only changes the figures to around EUR 3 250 for Helsinki and EUR 2 350 for recipient municipalities (Table 6). These differences in tax revenue largely reflect differences in tax base given that tax rates are fairly uniform across municipalities. It can be argued that while some incentive for municipalities to strengthen their tax bases is welcome, the large number of factors influencing location decisions are largely beyond control. Thus, the incomplete tax equalisation scheme allows some municipalities to enjoy above-average tax income and below-average tax rates through happenstance rather than active policy. On the other hand, despite their relatively generous tax revenue, the large municipalities such as Helsinki and Espoo are popularly viewed as having more stretched public services compared with rural areas. It is not clear whether this is due to misperception or genuinely large cost, demand or efficiency differences between urban and rural areas, which outweigh the tax “advantage” of urban municipalities.

Table 5. **Evaluating the impact of the tax-equalisation scheme**¹

Based on 2001 municipality income figures, in EUR

Municipality ²	Population (thousands)	Tax revenue per capita before equalisation	Tax revenue less estimated per capita equalisation	Estimated equalisation per capita
Contributors				
Helsinki	555	3 880	3 267	-614
Espoo	213	4 187	3 451	-736
Tampere	195	2 871	2 661	-210
Vantaa	178	3 162	2 836	-326
Turku	173	2 668	2 539	-128
Oulu	121	3 109	2 804	-305
Other contributors ³	22	2 770	2 601	-169
Recipients				
Kuopio	87	2 325	2 347	21
Joensuu	52	2 263	2 347	84
Mikkeli	47	2 160	2 347	187
Rovaniemi	35	2 258	2 347	88
Jyväskylän mlk	32	2 173	2 347	174
Savonlinna	28	2 213	2 347	134
Other recipients ³	5	1 827	2 347	519

1. The estimated equalisation is based on calculating the "potential" tax revenue per capita (PTR) which is the tax revenue per capita the municipality would get if it applied the municipal tax rate at the national average (17.68 per cent in these calculations). If the municipality's PTR is over 90 per cent of the national PTR then it contributes 40 per cent of the difference. If the municipality's PTR is less than 90 per cent of the national PTR then it receives the difference.
2. The individual municipalities listed are the largest in terms of population size.
3. Unweighted average.

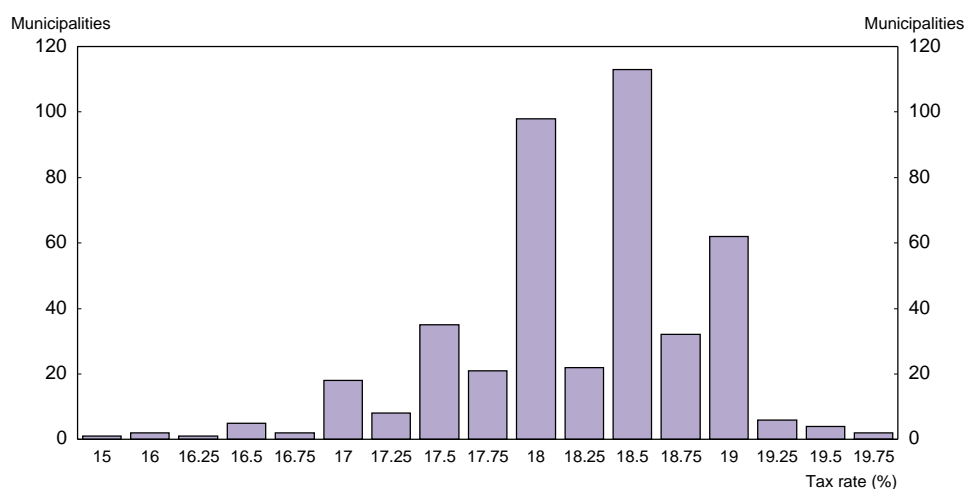
Source: Ministry of the Interior.

Box 3. The cross-municipality tax equalisation scheme

Tax equalisation plays an important role in municipality finances. In systems that rely heavily on tax to fund municipalities, there is far too much variation in tax bases for municipalities to be capable of providing similar standards of public services at similar tax rates. For this reason and for broader equity concerns, tax equalisation schemes are often applied. In the Finnish equalisation scheme municipalities are evaluated on the basis of the level of their potential tax revenue per capita (PTR) which is the tax revenue per capita they would get if they applied the national average municipal tax rate. The scheme compensates all municipalities whose PTR is below 90 per cent of the national average with a per capita amount which brings tax revenue up to the 90 per cent threshold. Municipalities whose PTR is above this threshold, make a contribution to the equalisation scheme equal to 40 per cent of potential tax revenue in excess of the 90 per cent benchmark (Table 6). Until 2002, the maximum contribution was limited to 15 per cent of a municipality's tax revenue. This cap has subsequently been removed although there has been some compensation by increases in grants for social and health care.* Despite the removal of this limit, Finland's scheme equalises local government revenues to a much lesser extent compared with the equivalent schemes operating in Denmark, Norway and Sweden.

* The equalisation scheme does not have significant implications for the government budget as the total amount given by contributing municipalities roughly equals the amount paid out to recipient municipalities.

Figure 11. **The distribution of the flat-rate municipal income tax**
2001



Source: Ministry of the Interior.

34. Finally, the municipalities do not appear to exercise their revenue-raising and spending powers as might be expected. Particularly puzzling is their tax rate-setting behaviour. The vast majority of municipalities set their income tax rates between 18 and 19 per cent (Figure 11). This is surprising given municipalities' freedom in rate-setting and that factors are operating other than voter preferences and inter-municipality competition as is commonly suggested in the literature on fiscal federalism.³⁰ One possible explanation is tacit agreement not to use the municipality income tax rates to compete for household tax-bases because aggressive competition between municipalities may compromise fruitful economic co-operation in other areas, such as the combined provision or purchase of services.³¹ Also, municipalities may find competition over corporate tax revenue more fruitful, given the political risks and economic trade-offs of changing the household tax rate; the large number of business centres set up by municipalities perhaps bears testimony to this. Finally, it may also be a strategic advantage for municipalities to present a relatively united front of income tax rates in their annual collective negotiations with the central government to determine grant levels.

35. The authorities may be able to alleviate the problems associated with tax revenue and equalisation by further cuts in the municipalities' corporate tax share. Indeed, it is instructive that both Sweden and Norway have abandoned altogether having local authorities get a share of company tax revenue. Also, reductions in the delays in equalisation payment might be considered, perhaps by using an "immediate" equalisation system similar to that in Denmark. Investigation as to why some of the large urban municipalities with relatively high per capita revenue apparently have more difficulty in coping with the pressure of demand for some public services compared with rural areas may reveal a need to review the production structures of public services and possibly the block-grant funding formula.

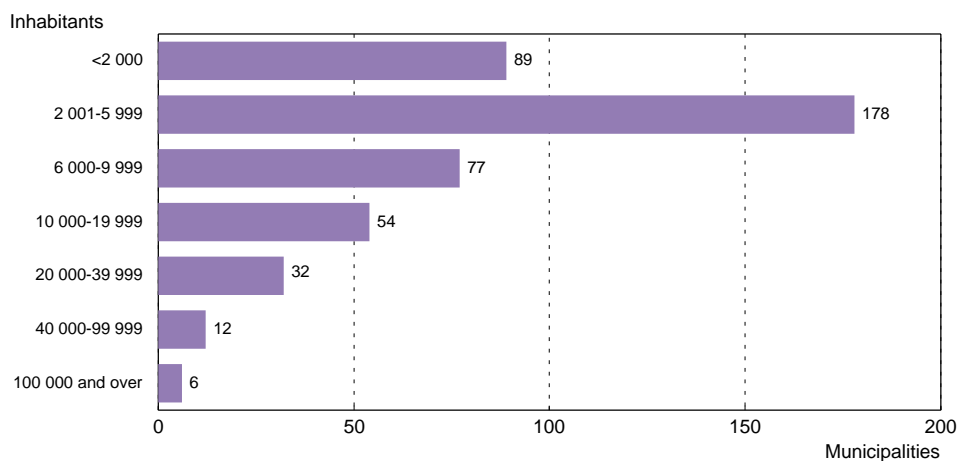
Evaluating the potential gains from merging municipalities

36. Rural depopulation and economies of scale in many public services raise the question of whether many of the smaller municipalities should be merged, a question that has arisen in other Nordic countries. Finnish municipalities vary enormously in population, and over half of them, mostly in rural areas, have less than 6 000 inhabitants. At the same time, there are a handful of urban centres with populations of more than 100 000, notably the municipality of Helsinki with over half a million inhabitants (Figure 12).

Therefore, at the risk of the loss of some degree of local representation, mergers among the small municipalities would make for a more balanced structure and to some extent save on administrative overheads and generate other economies of scale.³² This has long been recognised and a system of state support for mergers has been in place for 15 years. However, to date this scheme has not resulted in many mergers. The state is to increase the incentives to merge beginning in 2003, using non-earmarked per capita grants.³³ Given the slow pace of mergers among municipalities, the authorities should ensure other forms of administrative restructuring as well as further use of joint provision are fully exploited. At present joint provision is mainly used in the health sector and to some extent in education. The authorities should advocate other forms of joint provision; for example, there may be room for exploiting telecommunications technology to make economies of scale in local authority administration.

37. It should be noted that administrative restructuring cannot be expected to resolve all the difficulties of providing public services in remote areas and what may be considered appropriate policy for urban areas may not be so for dispersed rural communities. Transport considerations and the size of markets and populations in rural areas can severely limit the feasible number of producers so that measures to increase choice and reap efficiency gains from competition between public-service producers are less effective. For example, choice in primary and secondary education in rural communities is often extremely limited or effectively non-existent. And, entrenched monopolies in the service sector are likely more common in rural than urban areas. In such circumstances there are risks in granting a large degree of autonomy to municipalities and pitfalls in some of the other reforms that are commonly recommended as improving public-sector efficiency.

Figure 12. **Municipalities by population**¹
At end December 2001



1. Based on data for 448 municipalities and 5.2 million inhabitants.
Source: The Association of Finnish Local and Regional Authorities.

A general need for more benchmarking and accountability in municipalities

38. Decentralised responsibility for public services can be more responsive to local tastes and conditions than centralised public administration because decision-makers are on-site and therefore better informed.³⁴ However, the gains from localised provision can only be realised if central government properly oversees that municipalities are providing accepted standards of service efficiently. Insufficient oversight can risk municipalities being poorly co-ordinated and having weak attention to efficiency, too much oversight and the system becomes decentralised by name only. In this regard, the relationship between central and local government in Finland generally seems well balanced and conforms to the notion of “subsidiarity” advocated by the European Union. Nevertheless, central government needs to play a more active role in ensuring municipalities focus on the right goals and produce services efficiently. At present output-oriented goal setting has not filtered down strongly to municipalities. And comparisons across producers, whether municipalities themselves or other entities, is underdeveloped, as also is outsourcing. This issue is discussed further in the sections on health and education spending below.

Ensuring efficiency in delivering public services

General issues

Outsourcing to private producers remains low

39. Despite the absence of legal impediments and a good measure of encouragement, the use of private producers for public services remains low in Finland, although in a recent survey municipalities claim to be working to change this.³⁵ To help level the playing field between public and private producers, the Finnish Competition Authority is pushing for greater exposure of government entities to the legal demands of the Competition Act. To date, areas of public service such as health and education have generally been regarded as beyond the scope of the Act because they are not primarily commercial in character. However, with the increasing use of market-based production, especially of ancillary services such as catering and cleaning, the case for applying the Competition Act has strengthened.³⁶

40. Also adding to pressures for change, a working group on public provision set up by the Ministry of Trade and Industry issued its final report in 2001. The report broadly supports the current arrangements for the provision of public services by municipalities but recognises a need to further encourage outsourcing and, more radically, advocates the use of voucher systems (Ministry of Trade and Industry, 2001). Among the detailed proposals of the working group, are suggestions that municipalities be required to develop systems of cost accounting for their own production so that alternative arrangements can more easily be evaluated and as a check against cross-subsidisation in public provision. The working group also recognises a need for more joint production by municipalities in order to deepen customer bases and exploit economies of scale. A specific problem with the introduction of vouchers in Finland is that, depending on their purpose, they can be counted as taxable income. This is disadvantageous to municipalities and households as it involves a loss of resources to the central government and this could impede the introduction of voucher systems.

41. It remains puzzling to both policymakers and other observers that the level of outsourcing has remained so low. A recent report by the Finnish Competition Authority (FCA) concludes the principal problem lies in rigid attitudes and a lack of professional experience and understanding of outsourcing by municipality staff. The Authority also reports that municipalities have often blamed a lack of private sector producers as a reason for not using the open market to provide services. Of course there could be reasons beyond those found in the FCA's findings: in certain circumstances differences in value added tax treatment between public and private producers may be influencing municipal decisions.³⁷ Also, the predominance of permanent contracts in the public sector and problems in transferring from public to private sector pension arrangements may also be making outsourcing either politically unpopular for municipalities or simply too expensive.

Clarifying and motivating policy objectives: outcome-orientation, goal setting and benchmarking

42. The government of Finland, along with that in many other OECD countries, is increasingly formulating explicit goals and targets, using outcome indicators and conducting benchmarking exercises.³⁸ The degree to which these activities have been developed varies widely across the different areas and levels of government. In some cases explicit objective-setting is well-developed. For example, the Ministry of Labour has specific strategic guidelines, such as offering 95 000 workplaces and training opportunities in active labour market schemes for the unemployed. Similarly, the Ministry of Education's *Development Plan* identifies a series of goals from pre-primary education through to adult learning. In contrast, some ministries have only conducted cursory goal-setting exercises.

43. Although there is good reason not to rush in output-oriented goal setting given the difficulties of developing good indicators and incentive structures, the Finnish authorities are nevertheless overly timid. In particular, there are seldom substantial penalties or rewards in relation to reaching targets. One exception is in the funding for tertiary education where the funding formula for central government grants to universities includes the number of graduations.³⁹ By contrast, however, the Ministry of Labour's strategic guidelines, for example, make no explicit reference to any consequences for those responsible in the case of failure to reach targets. In addition the targets, although included in budget documentation, have not become common currency among politicians and the media. Therefore, unlike countries such as the United Kingdom, political accountability for the achievement of quantitative targets has not yet emerged. Wider diffusion and an increased profile of the targets may be beneficial.

44. Moreover, benchmarking is not fully exploited in Finland. The potential for making informative comparisons in costs and outcomes across a wide range of public services is large, especially in light of the strongly decentralised system of public expenditure. Although there are a number of both regular and occasional comparative evaluations of public services and general guidelines for evaluating public-sector activities have been developed, there is something of a taboo in the Finnish public service against allowing evaluations to inform the public, including statistics comparing performance.⁴⁰ Indeed access to the evaluations is positively discouraged by a policy of charging for research reports. The central government should take much stronger initiatives to introduce league tables that compare outputs as well as costs, perhaps taking as models the initiatives in Denmark, Norway and Sweden to improve information for citizens (see 2002 *Surveys* of Denmark, Norway and Sweden). There are signs that change is underway in this regard; a recent report by the Ministry of Finance (Ministry of Finance, 2002d) acknowledges the need to improve the openness of administration to citizens and increase the use of cost and output indicators.⁴¹

Developments in e-government

45. E-government is an increasingly important means of promoting public-sector efficiency, particularly in areas such as outsourcing, procurement, and administrative activities such as tax collection. According to indicators on the development and use of e-government, Finland is one of the leading countries in this area.⁴² A step towards making more use of information technology in the interface between government and the public was taken in spring 2002 with the opening of a common portal for the whole public sector.⁴³

46. However there is plenty of room for catch-up to best practice, particularly in the application of e-government in municipalities.⁴⁴ Technical, legal and social considerations have a bearing on this issue. Notably, the privacy and information-security laws are quite strict in Finland, which, for example, can make the application of e-government to health care complicated. Also, consideration must be given to those with difficulties in accessing or using the electronic services, so that the complete abandonment of traditional means of service delivery is a long way off.

Developments in the policy towards public employees

47. The Finnish public service is moving slowly away from a traditional model of remuneration for public-sector employees, which includes, for example, automatic steps for seniority.⁴⁵ Of the more notable reforms, a new wage system is gradually being introduced for central government employees aimed particularly at rewarding young and highly educated staff. The wage level of each employee consists of a “task” component and a “personal” component (Box 5). In some variants of the scheme the personal component can, in theory, reach half of the final wage level. The reform process is gradual within the central government and full implementation of the system remains limited.⁴⁶ Similar wage reforms for municipal employees are still at the planning stage. Development away from an overly rigid remuneration scheme is welcome, but needless to say these reforms cannot be regarded as universally applicable across the very wide range of civil-service activities, or as a panacea to morale and recruitment issues.

48. As in many other OECD countries, Finland’s public-sector employers are likely to face increasing pressure to make pay and conditions more attractive in the coming years.⁴⁷ In part this is because large numbers of public sector employees are coming up for retirement, about one third of municipal employees are due to retire by 2010 (Vuorento, 2001). At the same time, there are shifting demands across the public service, with increasing pressures in areas such as health alongside areas of declining demand, particularly for child-care and teaching, thus underscoring the need to avoid an across-the-board approach to cuts (or increases) in employment levels.⁴⁸ Signs of demand pressures are already evident, particularly in the health sector, where the employers are reverting to offering permanent contracts after a prolonged period of favouring temporary contracts.⁴⁹ The authorities should recognise that a widespread increase in employment security in order to make jobs more attractive could lead to inflexibility and inertia in the future.

Box 4. Customs officers' pay: an example of the new wage system for central government employees

The Finnish customs officers entered the new salary system in 1999-2001. The core of the salary consists of a task-related component based on an assessment of what tasks an individual performs. This is then augmented in a number of ways:

- An *individual component* that is based on an assessment of individual performance. The maximum size of this part is 30 per cent of the level of task-related pay.
- An *experience component*. After the first year in service the experience-related pay is 5 per cent of the task-related component, rising to a maximum of 10 per cent after the third year of service.
- A *guarantee component*, which (if necessary) brings the new salary up to the old salary level, so that nominal salaries are not reduced with the introduction of the new salary scheme.
- *Working conditions compensation* of up to 4 per cent of task-related pay.

Individuals are regularly assessed through a process of target setting and evaluation of performance conducted interactively between management and employees. The administrative set-up costs of the system included the assessment and valuation of tasks performed in more than two thousand posts as well as additional management training.

Efficiency issues in public health expenditure

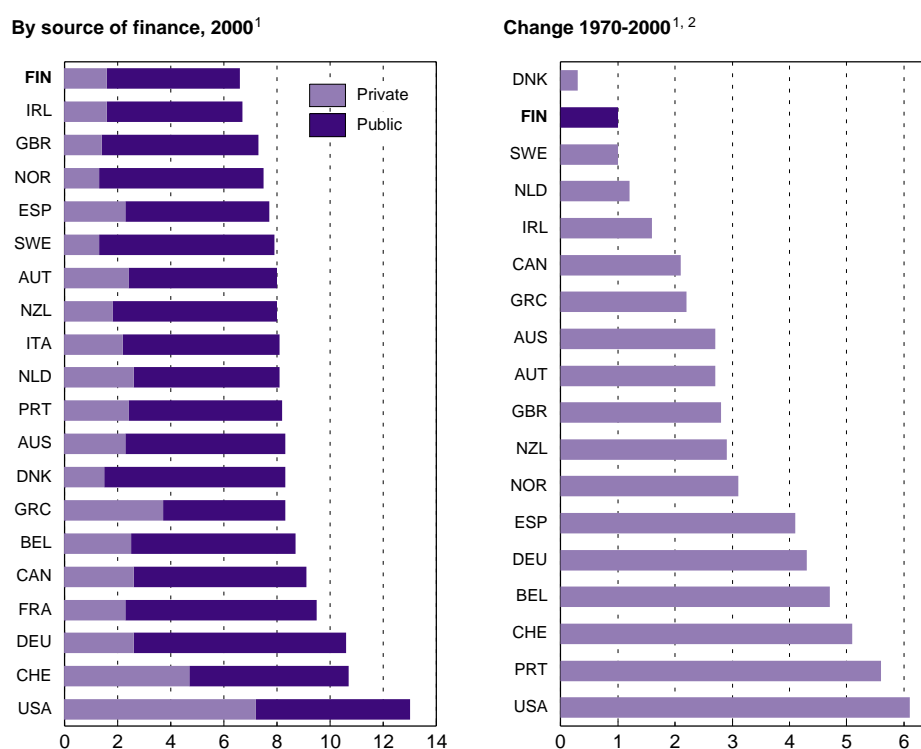
49. Finland devotes approximately 7 per cent of GDP to health services, three-quarters of which is via public expenditure (Figure 13). By international comparison the public resources devoted to health are relatively modest, which partly reflects the budgetary austerity of the 1990s (OECD, 2001b). Nevertheless, a special review of health care in the 1998 *Survey* judged the health system to be broadly in good shape. The long-standing tradition of local health centres in Finland has resulted in very good infant and child-care and high levels of immunisation. Also a strong emphasis in health education on issues such as nutrition, physical exercise, reproductive health and smoking have had a positive impact. Diagnosis and treatment also rank favourably in international comparisons (1998 *Survey*). However, there are now upward pressures on expenditures that are set to continue due to population ageing. Shortages of certain categories of health personnel have strengthened wage demands, as exemplified by the 2001 doctors' strike.⁵⁰

50. Public health care is largely the responsibility of municipalities (Figure 14). Local medical centres provide primary care, with some shared provision among small municipalities.⁵¹ The services offered by health centres include: outpatient care, inpatient care, preventive services, dental care, maternity care, child health, school health care, care for the elderly, family planning, physiotherapy and occupational health care. Hospital care is provided by 20 regionally based joint municipality organisations ("hospital districts").⁵² Primary health care is financed directly by the municipalities from their general budget. In secondary care, hospitals, in effect, pass on bills for care to the municipalities (see below). Under this funding arrangement for hospital care a potential problem for small municipalities is that the payment for treatment of high-cost medical conditions can potentially place heavy demands on their finances. The main mechanism for dealing with this is an arrangement in which ceilings are set to the amount a municipality has to pay for any single patient, with costs in excess of the ceiling being shared between municipalities in each hospital district. The discretionary government grants system is also sometimes used to help municipalities who have been facing heavy burdens due to health care costs.

51. The government has recently embarked on a reform of the health system, run by the Ministry of Social Affairs and Health and known as the National Health Project. Key aims of the reform are to ensure a more comprehensive availability of health care across the country, reductions in waiting times and improvements in staff training. The state grants for municipalities' welfare and health care will be increased as of 2003 by a total of EUR 223 million. Of this a total of EUR 57 million will be spent on the project to secure the future of health care. Funds for individual projects to improve services will also be made available, amounting to EUR 8 million in 2003 and rising to EUR 30 million a year between 2004 and 2007. The percentage of state funding to municipalities will be increased in subsequent years depending on progress in implementing the Project. It is estimated that the project will have made economies in health care equivalent to EUR 200 million by 2007. In addition to project funding, the state will fund the development and implementation of a new national electronic database for patient records.

Figure 13. Health expenditure in international perspective

Total expenditure in per cent of GDP

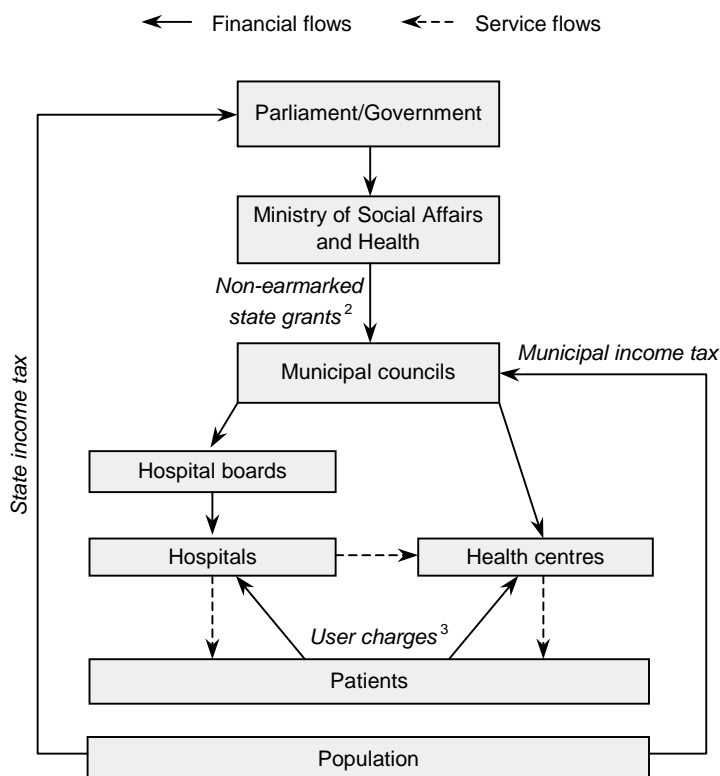


1. 1998 for Sweden instead of 2000.

2. Instead of 1970: 1971 for Australia and Denmark, 1972 for Netherlands.

Source: OECD Health Data 2002, 4th edition.

Figure 14. **The financing and provision of public health care¹**
Since reforms in 1993



1. Does not include care funded by national health insurance and/or employers (private sector and occupational health care).
2. Based on a capitation formula.
3. User charges decided by municipalities with a ceiling fixed by government.

Source: OECD (1994), *The Reform of Health Care Systems: A Review of Seventeen OECD Countries*, Health Policy Studies, No. 5.

The hospital district system is a particular source of inefficiency

52. The current set-up of the hospital district system is recognised as being one of the weaknesses in what is generally regarded as a sound secondary health care system. One problem is a lack of division between purchasing and providing roles as the municipalities acquire services from hospital districts they are themselves responsible for running. Another problem arises from the relatively advantageous position of hospitals in relation to the hospital boards. Hospital management often has an information advantage, especially in relation to small municipalities, in the specialised knowledge needed to understand the demand for health services, treatment options, costs and so on (Järvelin, 2002 and the 1998 Survey). And the role of hospitals as large local employers also influences their relationship with municipalities. As a result, municipalities often feel powerless to influence the costs and provision of hospital care. In effect, hospitals face a relatively soft budget constraint, presenting municipalities, via the hospital districts, with a bill for services.⁵³

53. To improve cost efficiency in hospital care the central government could play a more active role in ensuring the hospital system produces comparable accounts and other performance indicators, as at present it is extremely difficult to compare services and prices. A recent assessment by the Ministry of Social Affairs and Health recommends the establishment of a monitoring system on the national availability of services, the effectiveness of treatment, costs and productivity (Ministry of Social Affairs and Health, 2002a). A second approach is for the central government to encourage efficiency by requiring additional national minimum standards of service without fully compensating with additional funding. This would appear to be a key element in the current government thinking, especially with regard to waiting lists. The recent health care review by the Ministry of Social Affairs and Health recommends the implementation of a national waiting list system with the setting of detailed provisions on the maximum waiting periods for treatment and a requirement that if a board cannot provide the service in time then it must purchase the service from outside (Ministry of Social Affairs and Health, 2002a). The report also recommends stepping up efforts to ensure uniform waiting-list criteria are used throughout the country.

54. In recognition of the need for change, there is some welcome experimentation with variants of the current system. The Pirkanmaa hospital district, for example, is experimenting with a financing arrangement which gives greater freedom to municipalities to act individually as purchasers of medical services (Järvelin, 2002). More fundamentally, hospital efficiency could be improved by strengthening the distinction between purchasers and providers by, *inter alia*, removing responsibility for running the hospital districts from municipalities (leaving their role to being exclusively that of purchasers); ensuring that municipal officials have sufficient expertise to carry out this role; and giving municipalities the right to purchase from any hospital district and encouraging them to exercise this right (*i.e.* to shop around).

55. The advantageous position of the hospitals also engenders other inefficiencies. The Competition Authority has recently been investigating various cases where hospitals have been alleged to be using unfair pricing strategies when competing with the private sector in certain areas of health and ancillary services. For example, the Authority found the laboratory services offered by the Pirkanmaa Hospital District failed to comply with competitive neutrality and has also investigated allegations of cross-subsidisation in health-care laundry services (FCA, 2001). And, more broadly, the separate administration of primary care (mainly health centres) and secondary care (hospitals) also presents challenges for efficiency, in particular with regard to overlap and co-ordination. The recommendations of a recent review of health care frequently refer to a need for greater co-ordination and exchange of information (Ministry of Social Affairs and Health, 2002b).

A need to widen choice and promote alternatives to public provision

56. The public health care system does not give users much choice in terms of the medical centre or hospital they attend, or by whom they are treated. In primary health care, patients are assigned to doctors on the basis of location of residence and in secondary care patients cannot choose where they will be treated and only seldom have the possibility to choose a specialist (Ministry of Social Affairs and Health, 1999). At the same time, in certain areas of health care, private sector alternatives have developed quite extensively. Most notably this has happened for doctors' services; about one third of all doctors (both general practitioners and specialists) operate practices which the state supports by partially refunding the fees charged (Järvelin, 2002). There are relatively few large-scale private-sector operations, such as hospitals.

57. The current government recognises the need for more choice in public health care and a number of proposals have been made in this regard. Notably, the Ministry of Social Affairs and Health is advocating the use of vouchers for home-help services (Ministry of Social Affairs and Health, 2002b). In a recent evaluation of voucher systems the Ministry underscores the need, *inter alia*, for: equal treatment of different provider options, quality guarantees, and the inclusion of the municipality's own provision in the voucher system. It is proposed that the minimum value of the vouchers should be based on existing income-related charges, with municipalities being free to make supplements.⁵⁴ The Finnish Competition Authority has also voiced support for greater use of voucher schemes (FCA, 2002).

Goal-setting and benchmarking should be strengthened to improve efficiency

58. The health sector in Finland exemplifies a broad tendency of too little systematic benchmarking. To their credit, the authorities are making progress in the hospital sector. The National Research and Development Centre for Welfare and Health (Stakes) has developed a system of annual evaluation across hospital districts which now covers 95 per cent of hospital care in Finland although, as elsewhere in the public sector, dissemination of the evaluations is restricted (Linna and Häkkinen, 1999). At the same time, however, there have only been periodic comparisons made across health centres. Efforts to deepen and broaden the scope of benchmarking should continue, not least because evidence suggests there are persistent differences in productivity levels across health-service providers, and that the adoption of best practice standards could significantly reduce costs. For example, a recent study shows considerable variation in cost efficiency among primary health care centres and that technical efficiency could be improved by 7 to 10 per cent on average (Räty *et al.*, 2002).

Pricing issues in health care

59. In general, there has been a welcome tendency towards increasing user awareness of health costs through fees, although the price system, built up from numerous acts and decrees over time, can be criticised for being too complicated.⁵⁵ Over the 1990s there has been an increase in out-of-pocket payments in the health system. User charges for municipal services were increased over the 1990s, tax deductions for drug and other medical expenses were abolished in 1992 and there have been reductions in the reimbursement of pharmaceuticals by the national insurance scheme (Järvelin, 2002). At the same time, together with many other OECD countries, Finland still faces strong growth in pharmaceutical costs.⁵⁶ The government has responded with a number of measures over the past few years including: stricter assessment of retail outlets, greater assessment of the therapeutic and cost effectiveness of new drugs, special prescription arrangements for expensive drugs, retail price regulation that reduces incentives to sell more expensive drugs and a programme aimed at changing doctor's prescribing practices. However, these measures do not appear to have made any substantial impact on the rate of growth of pharmaceutical costs and further measures are needed (Järvelin, 2002). In December 2002 the Parliament passed a bill requiring pharmacies to use cheaper generic drugs, even if the doctor prescribes a more expensive product. The new law will come into force in April 2003.

60. The current system of remuneration for doctors' services may require attention. Any licensed physician in Finland can, in theory, set up a private practice and large proportion of specialists with public-sector posts in hospitals and health centres do so. One problem with this system is that it encourages a division of effort by specialists between their public-sector duties and private practice that makes it particularly difficult to establish an effective referral and gate-keeping system in the public sector (Järvelin, 2002). One influence on this problem is likely to be the incentives generated by the system of public-sector remuneration for specialists. Another consideration is that the division between public and private care is influenced by the system of reimbursement by the national insurance system. It is possible that this aspect of the system needs to be scrutinised as well as specialists' incentives.

Efficiency issues in elderly care

61. Care for the elderly currently accounts for about one per cent of GDP and is set to absorb an increasing share of resources in coming years.⁵⁷ Some problems with the current fee structure need to be tackled as it can lead to a type of “poverty trap” in which income net of taxes and service charges can decline as gross income increases. At the same time, ceilings on user charges mean the relative cost of services is not reflected in the fee structure. This is particularly the case for high-cost institutional care (OECD, 2000). Despite this specific bias towards institutional care, the authorities have in general conducted a successful strategy to reduce live-in care over the 1990s, principally through greater use of housing with special care facilities (“service housing”).⁵⁸

62. A broad challenge for efficiency in elderly care arises because the wide range of services, from home help to intensive institutional treatment, requires a wide range of professionals and often spans across several providing institutions. As a result, ensuring that resources are directed to where the marginal benefit is greatest is particularly difficult. In this regard the Ministry of Social Affairs has been attempting to improve co-ordination across elderly care services by encouraging municipalities to formulate strategic plans and to follow guidance on the quality of services.⁵⁹ Plans by the Ministry to have indicators of elderly care compiled by the research institute Stakes should be fully implemented and the current strategy should be backed by more forceful measures if there is inadequate improvement in elderly services.

63. Reports that municipalities are reluctant to welcome new elderly residents, especially those in need of institutional care services, should be further investigated as such behaviour may be detrimental both socially and economically. The shift to urban areas by the working-age population is also triggering an increasing demand to move by the elderly wishing to live closer to their families. However from a fiscal perspective, municipalities are understandably resistant to inflows of elderly persons as they can place increasing demands on expenditure. If there is reasonable substance to these reports, the negative spillover across municipalities may even have a significant impact on the amount of family-provided care for the elderly, thus increasing the overall need for publicly provided services. This issue should be monitored and countered by an appropriate policy response, either in the form of regulations to prevent exclusion by municipalities or, ultimately, by greater central government involvement.⁶⁰

Efficiency issues in education

64. As in other Nordic countries, compulsory education in Finland generally starts when children reach seven years of age, somewhat later than in most other OECD countries, although most children attend school before that age.⁶¹ The vast majority of students complete either upper secondary or vocational training and the entry rate to tertiary education is high.⁶² Primary and secondary education (including upper-secondary education) is the responsibility of municipalities. Tertiary education consists of two pillars, polytechnics and universities. Polytechnics are mainly municipality-run while all universities are state owned. Fees are not charged at any stage in the education system, and those in upper secondary and tertiary education are also entitled to means-tested living allowances.

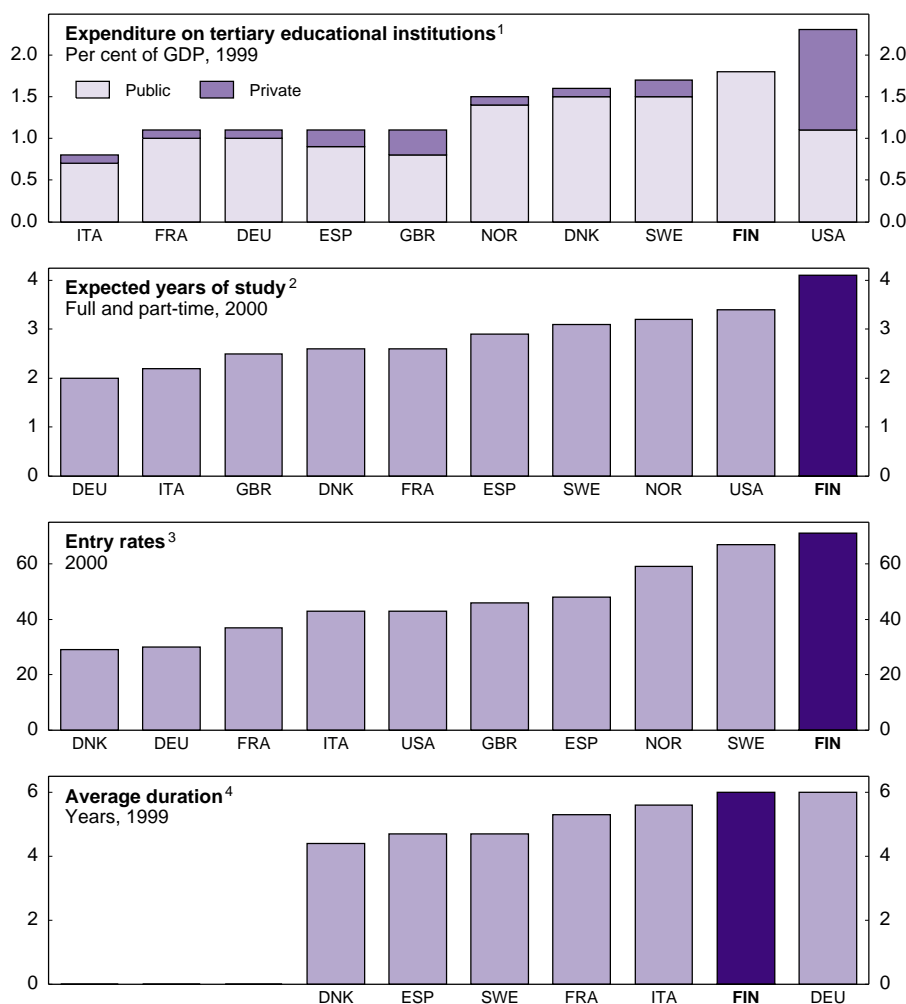
65. The quality of the Finnish education system in terms of outcomes is generally excellent. Comparative studies, such as the OECD’s PISA report, find Finland to rank very highly in terms of student abilities at secondary-school level, although the Finnish government has expressed concern for a number of years about skills in mathematics. Standards in tertiary education are maintained by a comprehensive review system and a relatively high percentage of students in Finland take scientific or technology oriented degrees (OECD, 2002d).⁶³ Thus from a public expenditure perspective, the quality and mix of “output” in education in Finland is less of an issue compared with ensuring the system is efficient.⁶⁴

In the non-tertiary sector benchmarking is weak and alternatives to public education are underdeveloped

66. A recent FCA report underscores that flexibility for private-sector schools is limited. There are about 50 private schools in Finland, mainly located in Helsinki, which are tightly monitored so as to ensure certain minimum standards. Also they are not normally allowed to charge fees and financing is based solely on grants from the government, further restricting the leeway for offering education that differs from the state system.⁶⁵

67. As with municipalities' responsibilities in other areas, there is reluctance to provide comparisons across primary and secondary teaching establishments. Evaluations of teaching became compulsory in 1999. The evaluation process involves both specially appointed boards and municipal authorities. However, there is no explicit ranking of schools and a reluctance to disseminate the results of the evaluations.

Figure 15. Tertiary education: expenditure and participation



1. Private expenditure is net of public subsidies for educational institutions whereas public expenditure includes those to households (including direct expenditure on educational institutions from international sources).
2. All tertiary education (type A, B and advanced research programmes) in public and private institutions. The expected years of study are calculated by adding the net enrolment rates across age groups.
3. Sum of net entry rates in tertiary type A education in public and private institutions.
4. For tertiary type A and advanced research programmes. Duration estimated using either a chain method or an approximation formula. No data available for Norway, United Kingdom and United States.

Source: OECD (2002), *Education at a Glance*.

Less time should be spent in acquiring university (and polytechnic) qualifications

68. Finland devotes a high percentage of GDP to publicly funded tertiary education compared with other countries, and the expected number of years the population spends in tertiary education is also high (Figure 15). In part these figures stem from a positive aspect of the system: high enrolments in tertiary education. Also a relatively large share of students take their studies to a higher level compared with other countries; the majority of university students complete with masters rather than bachelor's degrees. At the same time however it takes many students longer than necessary to graduate which adds to the public cost through additional fees and income support; only 5 to 15 per cent of students complete their degree within 5 years (Ministry of Finance, 2002e). Students also start tertiary education relatively late: the median age of entrants is 21½ years, while it is under 20 years in many other countries. The late start, combined with the long enrolment means most master's students do not graduate until they are in their late 20s. From a broad economic perspective, this late graduation represents valuable losses in high-quality labour supply.

69. The Ministry of Education's *Development Plan* for 1999-2004 acknowledges the need for improvement in the pace of degree studies and aims for 75 per cent of students to complete their degrees without significant delay: three years in the case of bachelor's degrees and five years in the case of master's degrees. To achieve these targets the state funding formula for universities was adjusted. This performance-linked formula includes penalties for institutions which are lagging behind the targets. It was first introduced in 1997 and will be fully operational in 2003 (Ministry of Education, 2000). There is also recognition that the financial incentives for students under the current system needs to be altered. One suggestion has been to adopt a system of support with sanctions, such as that in the Netherlands where failure to complete studies within a given period results in financial aid being converted into a repayable loan (Ministry of Finance, 2002e). Also, if students are made to bear more of the costs of education in the longer and more academic courses, this may induce more individuals to choose the shorter vocational courses and thus assist the government's campaign in this regard.⁶⁶ Whatever approach is taken, the authorities should overcome their reluctance to substantially alter the current system of public assistance via fees and living expenses given the substantial evidence that the private returns to tertiary education are usually large and typically exceed the public returns (Blöndal *et al.*, 2002). Reforms to public assistance for higher education should take into account that Finland's strongly progressive tax system can be viewed in part as a recuperation of the costs of higher education given the connection between earnings and education. Therefore reforms that entail substantial reductions to direct assistance for higher education should perhaps go hand-in-hand with tax reform.

Wrapping-up

70. The fundamental framework guiding public expenditure in Finland is sound and in many areas of public activity the country compares very favourably internationally. At the same time, slippage in fiscal discipline needs to be addressed and it will be important to monitor, and if necessary follow through on, reforms of pensions and early retirement arrangements so as to ensure long-run sustainability in public finances. In addition, there are important efficiency issues with significant potential rewards that should be tackled. There is a need for a deeper commitment to reforming public-management practices and to this end it would be particularly useful if benchmarking were more widespread and more in the public eye. Finally, there is a general reluctance to step away from traditional-style in-house provision of public services and current government efforts to overcome this should be continued. Box 6 makes specific recommendations as to how these broad weaknesses can be tackled as well as recommendations as to how to deal with some of the more specific areas of concern in the way public spending is organised, most notably in the hospital sector.

Box 5. Recommendations for reforming public expenditure

Aggregate fiscal discipline

- Strengthen the influence of the spending rule of the Government Programme in the annual budget process. For example, move towards a more genuine, medium-term rolling budget by making greater use of the four-year budget projections that are included in the annual budget documents.
- Enforce spending limits and aim at lower aggregate spending as a per cent of GDP to allow further tax cuts.
- Consider introducing a fiscal rule in the Government Programme that stipulates that additional spending during the year needs to be offset by spending cuts elsewhere.
- Exclude interest rate payments from the expenditure rule in the Government Programme.
- Aim for greater clarity in the technical details of the spending rule.
- Continue efforts to get parliamentary commitment to overall spending limits earlier in the budget process and continue to look for ways to reduce financial inflexibility across ministries (“stovepipe government”).

Municipal structure and financing

- Continue encouraging both the merger of small municipalities and the use of co-operative arrangements to exploit economies of scale.
- Reduce the role of direct tax revenue in municipal financing by, at least, further reductions in the municipalities’ share of corporation tax. Make up for the lost revenue with increased block grants and evaluate the funding formula.
- Remain vigilant to municipalities abusing the system of discretionary funding the central government uses to assist municipalities in financial difficulties.

Transfers: pensions and early retirement

- Increase further the minimum age for the unemployment pension; shorten “unemployment pipeline to pensions”; reduce incentives to retire early.
- Reduce impediments for hiring older workers. Reduce, for instance, the contribution of the last employer to disability and unemployment pensions.
- Smooth the future impact of ageing by increasing funding of the pension system now.
- Introduce a properly funded pension scheme for central government employees.
- Put early retirement schemes on an actuarially sound footing. More remains to be done, especially concerning the unemployment pipeline to pension.

Transfers: unemployment and related benefits

- Shorten maximum unemployment benefit duration to increase job search intensity. phase down unemployment benefits during the first 500 days of unemployment. make eligibility criteria for social security benefits stricter. enforce eligibility criteria for unemployment benefits.
- Increase regional mobility of the unemployed. lift the condition that placement involving relocation is suitable only if the vacancy cannot be filled locally.
- Introduce medical re-examination of disability pension beneficiaries.

Public services

- Ensure goals and targets are accompanied by stronger sanctions and rewards so that they play a greater role in political and media discussions.

- Make greater use of benchmarking, particularly across municipal-based public services. Make the results of benchmarking more widely available, for example by publishing league tables of input and output indicators.
- Continue to take measures that increase contestability in the provision of public services, including steps to increase outsourcing and the role of private-sector providers. Consider expanding choice, for example via voucher systems.
- Alter or replace the hospital district system so as to improve incentives for cost containment by, *inter alia*, ensuring that the municipal authorities are only the purchasers of hospital care and not also involved in the process of provision.
- Monitor and, if necessary, follow up on the initiatives to reduce study-time in tertiary education. Consider moving away from universal unconditional payment of fees. The system of support for living expenses for tertiary students should also be reformed with the aim of speeding up the pace of study and making sure that the public support to individuals' education is appropriate.
- Continue to develop e-government services and promote best practice among municipalities to improve overall implementation.
- Continue to develop and implement the new wage system for public-sector employees. Be careful in using permanent contracts as a means to making public-sector jobs more attractive.

NOTES

1. Philip Hemmings and David Turner were economists on the Finland Desk in the Country Studies Branch of the Economics Department of the OECD at the time of writing this paper. Seija Parviainen was a consultant for the Department from the Ministry of Finance, Finland. This paper was originally produced for the OECD *Economic Survey of Finland* published in March 2003 under the authority of the Economic and Development Review Committee of the OECD. The authors are indebted to Andrew Dean, Romain Duval, Jørgen Elmeskov, Mike Feiner, Peter Hoeller, Val Koromzay, Wim Suyker and other colleagues in the OECD Secretariat for valuable comments and drafting suggestions. Special thanks are also due to Desney Erb for her statistical assistance and to Helen Maguire and Nathalie Macle for their administrative support. The paper has also benefited from discussions with numerous Finnish experts. In particular the authors would like to thank Mr Jorma Tuukkanen from the Ministry of Finance, Mrs Seija Ilmakunnas and her team from the Central Pension Security Institute (ETK) and Mr Reijo Vanne from the Finnish Pension Alliance (TELA).
2. The chapters of the OECD Economic Survey on which this Working paper is based were finalised before the general election in March 2003. Thus, many of the fiscal objectives referred to in the current paper are those of the previous government which was in power between 1999 and March 2003. At the time of finalising the present Working paper the details of the new Government Programme were not yet available, but it is apparent that many of the broad fiscal objectives will remain similar, in particular restraining future growth in public spending, maintaining a general government surplus while leaving scope for tax cuts, particularly on labour.
3. The division between merit good expenditure and income transfers in Figure 1 is based on gross expenditure. In international comparisons made by the OECD of net social expenditure that take into account the tax treatment of transfers and tax expenditures, Finland and other Nordic countries continue to rank highly (Figure 2 and Adema, 2001).
4. For a broad evaluation of public-sector efficiency see Ministry of Finance (2002d, 2002e).
5. For example, examination of productivity developments in Finnish health centres by Luoma and Järviö (2000) found that half the health centres had improved productivity between 1988 and 1995 by at least 6 per cent and a quarter of them by at least 17 per cent.
6. Achieving the objective for the general government surplus was mainly dependent on hitting the target for the central government surplus. This is because employment pension funds, which have been in surplus of around 3 per cent of GDP, are included in the general government accounts and local government net borrowing has typically not exceeded a few tenths of a percentage point of GDP.
7. Finland has a similar tax to GDP ratio as Austria, Belgium, Denmark, France, Norway and Sweden. In all of these countries the ratio is at least 45 per cent. Most other OECD countries have tax to GDP ratios well below 40 per cent (OECD, 2002h).
8. By the end of 2003 Finland must adjust to freer regulation on the importation of alcohol (and tobacco) products from other EU member states. Also, the current system of taxation applied to new and second-hand cars has been deemed illegal by the European Union as a result of a court case. Compliance with the decision will result in reduced import taxes on second-hand cars. Compliance on both alcohol and car taxes is estimated to reduce taxes by approximately 1 per cent of GDP, largely due to the loss of alcohol tax revenue.

9. Alternatively, assessments of fiscal sustainability may focus on a measure of net general government financial liabilities (OECD Economic Outlook 2002, No. 72, Chapter IV). However, the precise definition of such measures needs to be carefully examined, particularly when making international comparisons. For example according to Annex Table 34 of this publication, the current position of Finland appears very favourable — being one of the few OECD countries with substantial general government net assets equivalent to 42 per cent of GDP in 2001. However, this figure includes the assets of pension funds, equivalent to 48 per cent of GDP in 2001, but not corresponding pension liabilities. Thus, a more meaningful comparison is between the combined net financial liabilities of central and local government of Finland (but excluding pension funds), with the figures reported for general government for other countries. On this basis the position of Finland is much less favourable with net financial liabilities equal to 6 per cent of GDP in 2001..
10. The 2002 Article IV assessment by the International Monetary Fund also advocates a stronger multiyear approach in the budgeting process (IMF, 2002).
11. See the forthcoming OECD regulatory reform review OECD (2003) for further discussion on this issue.
12. Several reforms implemented during the 1990s will reduce spending on all pension schemes by an estimated 8½ per cent of the wage sum by 2030 (see Box 5 of the 1999-2000 *OECD Economic Survey of Finland*).
13. The 1999-2000 *OECD Economic Survey of Finland* included a special chapter on ageing.
14. See, for example, Blöndal and Scarpetta (1998) and OECD (2002b).
15. For further details of these calculations see OECD (2002b).
16. Pension payments are reduced by 0.4 per cent for each month of early retirement before the statutory age of retirement of 65 and increased by 0.6 per cent for each month of work beyond the age of 65.
17. The ceiling is currently equal to 60 accrued percentage points of pensionable wages. For a person starting work at 23 the ceiling discourages work after 61 as further employment will lead to additional pension contributions without accruing further pension rights. A second reason why the change in pension wealth is negative is that pension income is taxed.
18. Johnson (2000), examining experience of pension reforms across a number of OECD countries, finds “substantial” empirical evidence that both the replacement rate and the implicit tax on continued work influence the participation rate of male workers over the age of 60. He further argues that separating out the contribution from the two effects is difficult because of collinearity. However, on the basis of particular country episodes he suggests that in some cases the effect of the implicit tax rate on continued work has been more important and in other cases the replacement rate effect has been dominant.
19. This partly reflects policy changes in recent years that have tended to make pension schemes more actuarially neutral.
20. The calculation of the proportion of retirees on disability pension here includes those on “individual early retirement pension”, which is a form of disability pension. The proportion of all pension recipients on early retirement schemes is much smaller when considered as a proportion of the “stock” of all pensioners (about 30 per cent in 2001), than taken as a proportion of the “flow” of new retirees (about three-quarters in 2001), as shown in Figure 6. This is because eventually most recipients of early retirement pensions end up taking the regular old-age pension at the age of 65.
21. In Figure 7 the replacement rate shown is that when the person first enters the unemployment or disability scheme. For some countries, although not particularly Finland, the level of unemployment benefit might diminish over time, which would reduce the replacement rate and the incentive to withdraw from the labour market.
22. The net replacement rate for a worker entering the unemployment pipeline at the earliest opportunity (at present 55, after the reform 57) and working to the earliest age possible to draw an old-age pension (at present 60, after the reform 62) are likely to be similar. Under the current and reformed systems, pension rights will accrue at about the same rate over this period. However, a major difference between the present

and reformed systems is that there will be more incentive to continue work after the age of 62, because of the abolition of the pension ceiling and the higher accrual rate. Thus, the incentives to work after the age of 57 will be improved as a result of the reform, the longer the period of work history, and the more the intention is to work through into their mid-sixties rather than retire in their early-sixties.

23. In practice, employers' contribution rates only depend on the age of their employees for firms with over 50 employees, see the chapter on taxation in the previous *Survey* for details.
24. In the past this division of responsibilities reportedly resulted in a revenue-saving “carousel” strategy by municipalities. It was apparently not uncommon for municipalities to wait until the long-term unemployed were close to the end of their KELA benefits and then offer them a job (typically subsidised by central government) until they re-qualify for KELA benefits, thus avoiding payment of municipality social assistance. This problem has since been rectified.
25. The principal layer of regional government consists of 20 regions (*maakunta*) each headed by a regional council (*maakuntaliitto*). Established in the late 1990s, they are based on traditional Finnish provinces and form part of the EU's regional structure. They have relatively small budgetary requirements, which are principally funded by annual membership fees, paid by the member municipalities. One of the principal roles of the councils is to represent the region internationally, most importantly with regard to EU regional funding and policy. The regional councils are also involved in certain areas of planning, such as roads and water services.
26. Moisio (2002) compares municipality finances before and after the change to block grants and indeed finds that under the new system the municipalities are making more careful economic decisions. For example, under the new system there is a stronger tendency for municipalities to simultaneously assess expenditure and revenue as opposed to a “spend then tax” approach that characterised the matching grant system.
27. Central government typically steps in with discretionary financial support for those municipalities in financial difficulties. In recent years the number of municipalities which have been unable to cover operating expenditure with operating income has increased. However, these negative accounts remain relatively small and the size of the discretionary state grants used to cover them does not pose a significant threat to the independence of municipalities or to overall expenditure control. According to Ministry of Interior figures, in 2001, 114 municipalities received discretionary state-aid grants whose valued totalled about EUR 60 million, a relatively small sum in relation to total municipal income of EUR 27 billion.
28. Some cuts in central government grants have been because of policy changes that have reduced municipalities' costs. For example there have been cuts in contributions municipalities have to make to the Social Insurance Institution of Finland, KELA.
29. Although there has been some improvement recently, there is still about a two-year lag between a given fiscal year and the equalisation adjustment. A more radical proposal by Pekkarinen (2001) for a real-time equalisation between municipalities was discussed, but not taken up by policymakers.
30. Also, despite a good deal of similarity in the systems, Finnish municipality funding has not exhibited the Danish situation of upwardly spiralling expenditures, funded by increases in municipal tax rates.
31. Indeed in a meeting with OECD staff one municipality official stated that tax competition was “not a sport”.
32. Norway has a similar structure of municipalities as Finland and it is interesting to note that Langørgen *et al.* (2002) estimate that it would be possible to save NOK 4.1 billion, or about ¼ per cent of GDP, if Norway's 434 municipalities were merged into 90 large-scale administrative units.
33. According to the Ministry of the Interior only about 30 mergers have taken place in as many years. About 100 municipalities, however, have initiated negotiations on possible mergers.
34. Indeed, such considerations, *inter alia* arguably motivated the European Union to incorporate the principle of “subsidiarity”, *i.e.* that public policy and its implementation should be assigned to the lowest level of government with the capacity to achieve objectives. See the OECD framework paper on public expenditure, Atkinson and van den Noord (2001). For further discussion on the advantages to democracy in local government as well as general discussion on fiscal federalism see Oates (1999).

35. Recognising a high degree of inertia in moving away from a tradition of in-house provision, the government in 1998 launched the Government and the Market Project that aims to encourage competition between private and public producers. Recently the project has focused on the role of the purchasers, *i.e.* for the main part municipalities or joint municipality boards. A survey of 15 municipalities confirms that private provision has remained limited (see 2002 *Survey*), although nearly all municipalities claimed to be working on the issue (FCA, 2002).
36. For further discussion of competition issues in the public sector see Chapter III of the OECD's forthcoming regulatory review of Finland (OECD, 2003).
37. In principle the public and private producers of services are treated in the same way in taxation, as it is not the type of producer but the type of service which determines the VAT-exemption. In the case of services subject to VAT both the municipalities and the private producers get deductions for VAT already paid on inputs so as to avoid double taxation. However differential treatment of private and public sector producers can occur in the case of VAT-free services. In this case public producers get a refund of 5 per cent which is an estimate of the average amount spent of VAT on inputs for services while private producers get no such refund. School meals are an important example. Due to the VAT on inputs included in the private sector prices it can be cheaper for municipalities to arrange the meal services in-house.
38. A survey monitoring the use of various management tools to improve the efficiency and quality of the public sector was conducted in 2000. The results, covering both the state and municipal sector showed, for example, quite extensive use of client feed-back systems, whilst service charters were used rather less commonly.
39. Funding formulas for higher-education establishments that include the number of graduations have been introduced elsewhere, *e.g.* Norway and Switzerland. As in other countries, the universities in Finland also subject themselves to peer review. Given the small number of institutions the reviews are, commendably, conducted by non-Finnish institutions.
40. The guidelines for evaluating public-sector activities have been developed by the Association of Finnish Local and Regional Authorities, the Ministry of the Interior and the Ministry of Finance as part of the National Productivity Project (*Tuottavuudella tulevaisuuteen*).
41. Indication of a more open policy to information on public services may also be seen in a recent overview of social policy (Ministry of Social Affairs and Health, 2002a) in which it is reported that information on hospital waiting times may be made publicly available on the internet.
42. An index of the overall maturity of e-government services places Finland fourth behind Canada, Norway and the United States in a comparison of nine OECD countries (Ministry of Finance, 2002e). In other evidence the European Commission's *Flash Eurobarometer* survey indicates Finnish computer users to be among the most frequent users of e-government among European countries.
43. The new general portal for the Finnish government is located at www.Suomi.fi.
44. One of the pioneering municipalities in this field is Espoo www.Espoo.fi, one of the largest cities in Finland.
45. For an overview of public-sector employment in Finland see Ministry of Finance (1999).
46. According to data collected in spring 2002 by the Ministry of Finance, only 14 per cent (15 700 employees) of central government employees were in the new wage system.
47. A recent OECD project looking at public employment issues across eleven member countries reported current and prospective shortages of staff in certain areas to be a common issue. As in Finland, demographic trends in the civil service are typically fuelling the problem (OECD, 2001d).
48. There are also regional considerations in assessing the future demand in public services. In growth centres (especially in the Helsinki area) there is a need to increase the number of child-care staff and teachers, whereas in the more peripheral areas which are losing working-age population there is a need to invest in elderly care (Vuorento, 2001).

49. The temporary contracts in the public sector are used for new employees but also where staff with a permanent post move to another position. About a quarter of public-sector employees hold temporary contracts. However, the share of these who also hold permanent contracts is unknown.
50. The Finnish Medical Association (*Suomen Lääkäriliitto*, SLL) did not sign the two-year centralised incomes policy agreement concluded in December 2000 and proceeded to negotiate separately with its employer, the Local Authority Employers Association (*Kunnallinen Työmarkkinailaitos*, KT). A 20-week strike ensued with a two-year wage deal being struck in August 2001. The pay increase is worth about 10½ per cent (nominal) over two years and is accompanied by improvements in working conditions.
51. There are approximately 270 health centres for the 448 municipalities.
52. In 2000 an important change to the structure of the hospital districts in the Helsinki region was made when the Helsinki and Uusimaa districts were merged along with the Helsinki University Hospital into a single hospital district, HUS.
53. There is no legislation on the price system or price levels arranged between hospital districts and municipalities. Typically municipalities come to an agreement, rather than a formal contract, with the hospital district on the provision and pricing of services on an annual basis (Järvelin, 2002).
54. Fees for health and social services are stipulated in the Act on Client Fees in Social Welfare and Health Care.
55. A recent review of client-fee policy (Ministry of Social Affairs and Health, 2002a), underscores the complexity and lack of transparency of client fees in the Finnish health system.
56. The OECD's *Health at a Glance* (OECD, 2001b) estimates the average annual rate of growth in per capita pharmaceutical expenditure to be 3.7 per cent in Finland over the period 1970 to 1998, a rate of growth similar to other countries.
57. A paper on the budgetary implications of ageing (European Commission, 2001) has projections which show that Finland may have one of the largest increases in long-term care costs among EU countries, equivalent to about 2 per cent of GDP between 2000 and 2050.
58. There are a number of biases towards the use of service housing for the elderly. Municipalities have a freer hand in pricing service housing (and auxiliary domestic services) compared with institutional care. Also, individuals living in service housing can receive various benefits from the national social insurance fund (KELA) (housing allowance, pensioner's care allowance and health care reimbursements) that are not paid to people in long-term institutional care. And, until recently service housing has received support from the Slot Machine Association and the Housing Fund of Finland.
59. The initiatives to improve elderly care services fall under the broad strategy outlined in the Target and Action Plan for Social Welfare and Health Care.
60. The possibility of significant costs and undesirable social outcomes from negative competition at the local government level leads some experts in fiscal federalism to favour the centralisation of social welfare.
61. For a comparison of pre-primary and primary educational enrolment patterns see OECD (2002d). The widely used system of day care and a tradition of a one year pre-school in Finland means that most children are exposed to public education for a considerable time before beginning compulsory schooling. Note that Norway recently lowered its school-entry age to six.
62. OECD (2002d) shows Finland as having one of the highest rates of entry to tertiary education among OECD countries.
63. The 1998 Universities Act obliges universities and polytechnics to engage in systematic evaluation and introduced an overseeing body, the Finnish Higher Education Evaluation Council for this purpose (Ministry of Education, 2000).
64. For evaluations of school efficiency see, for example Häkkinen *et al.* (2000) and Kirjavainen and Loikkanen (1998).
65. Source: Association of Independent Schools, www.ykl.pp.fi/index.html.

66. The Government has been promoting vocational education as part of its campaign to overcome labour shortages in certain professions. For example, vocational training is a prominent topic in the 1999-2004 *Development Plan* of the Ministry of Education (Ministry of Education, 1999). See also the National Board of Education's promotional web site entitled *Occupy your time* www.viisikko.fi/amatillinengb/.

GLOSSARY OF ACRONYMS

ALMP	Active labour market policy
CO ₂	Carbon dioxide
EU	European Union
EUR	Euro
FCA	Finnish Competition Authority
FSA	Financial Supervision Authority
GDP	Gross domestic product
GHGs	Greenhouse gases
ICT	Information and communication technology
KELA	Social Insurance Institution of Finland
km	Kilometre
MTI	Ministry of Trade and Industry
NOK	Norwegian kroner
PTR	Potential tax revenue per capita
R&D	Research and development
UMTS (3G)	Universal mobile telecommunications systems (third generation mobile telephony)
UNECE	United Nations Economic Commission for Europe
USD	United States dollar
VAT	Value added tax
VOC	Volatile organic compound
WLAN	Wireless local area network

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ANNEX

EXAMPLES OF THE PENSION REFORM EFFECTS ON INDIVIDUAL PENSION LEVELS

The Central Pension Security Institute (2002) has estimated that the effect of the pension reform will raise the level of pensions in the private sector by 15 per cent on average compared to the present system. However, there are substantial differences between individuals depending on a variety of factors. To illustrate these differences the Institute has provided a number of representative examples (Table A1). It is important to note that these estimates do not include the effect of the life expectancy adjustment. To the extent that life expectancy increases, the generosity of the new system relative to the current 2001 system would be reduced.

The length of working career and its timing during the life cycle affect the pensions both in the present and in the new system. In these examples the career span varies between 44 years (case 1) and 28 years (case 6). In the case of a long working career the new system gives a clearly better pension level than the present system. The increase in the pension due to the reform is smallest in the case of a career in which the salary is “rising” more strongly than normal and largest when the salary is “declining” over the course of a career. This is because the present system uses the last ten years of any employment relationship as the basis for calculating the pension rather than lifetime earnings.

Comparing cases 1 and 2 shows that working between age 63 and 65 brings a bigger increase in pension in the new system than in the present system. This is due to the higher accrual rate from the age of 63. Also a normal career of about 35 years clearly gives a better pension level in the new system compared to the present system. But compared to cases 1 and 2 a shorter working career (case 3) gives a lower pension.

In case 4 the effect of the pension reform is much smaller than in the previous cases. There are two reasons for this: retirement takes place before the higher accrual rates start having an effect; also having just one job during a career is an advantage in the present system, but not in the new system.

Case 5 has the same career length as case 4, but the pension reform has a much more positive effect. This is because the new system will penalise interruptions to a working career by much less because: pension rights still accrue during some non-work periods (*e.g.* childcare); and, as in case 4, having more than one job in a career is not a disadvantage in the new system.

In case 6 the working career is much shorter than in the other cases due to the non-working periods and early retirement on disability pension. Even in this case the new pension system gives a better pension level than the present system.

Table A1. **Pension payments under various circumstances**
 EUR per month

Wage development	Last salary	Pension			
		2001 system	New system	New system as % of the last wage	New system as % of 2001 system
Case 1. Working age 21-65, 3 jobs					
Normal	2 306	1 360	1 678	73	123
Declining	1 770	1 203	1 515	86	126
Rising	2 767	1 482	1 744	63	118
Case 2. Like case 1, but retirement at age 63					
Normal	2 310	1 341	1 447	63	108
Declining	1 788	1 173	1 330	74	113
Rising	2 672	1 431	1 467	55	103
Case 3. Like case 2, but also non-working periods (35 years of work)					
Normal	2 310	1 139	1 239	54	109
Declining	1 788	941	1 122	63	119
Rising	2 672	1 202	1 267	47	105
Case 4. Studying for 5 years, working at age 27-63, 1 job					
Normal	2 310	1 310	1 302	56	99
Declining	1 788	1 116	1 185	66	106
Rising	2 672	1 398	1 331	50	95
Case 5. Working age 21-63, childcare for 2 times (lasting 6 years altogether), 36 years of work					
Normal	2 308	1 167	1 364	59	117
Declining	1 779	1 021	1 247	70	122
Rising	2 719	1 233	1 393	51	113
Case 6. Working age 21-58, 3 jobs, non-working periods (28 years of work)					
Normal	2 320	912	1 040	45	114
Declining	1 833	802	945	52	118
Rising	2 450	921	1 048	43	114

Source: Central Pension Security Institute (2002).

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