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Keskusteluaiheita – Discussion papers

No. 875

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FLEXIBILITY AND COMPETITIVENESS: LABOUR MARKET FLEXIBILITY, INNOVATION AND ORGANISATIONAL PERFORMANCE – Finnish National Report

Acknowledgements: This research is part of the EU funded research project *Flexibility and Competitiveness: Labour Market Flexibility, Innovation and Organisational Performance* (FlexCom, SERD-2000-00216). I wish to thank Sinikka Littu and Reijo Mankinen for help with data gathering and Kaija Hyvönen-Rajecki for patient assistance with the literature search. I am also grateful to Jyrki Ali-Yrkkö, Laura Paija, Petri Rouvinen and Pekka Ylä-Anttila for their help and constructive comments on Chapter 3. My special thanks go to Jorma Rusanen at SAK for his many clarifications and corrections concerning the labour market related chapters of this report. Jenni Oksanen has contributed the text of Chapter 11.

ISSN 0781-6847 20.11.2003

ASPLUND, Rita, **FLEXIBILITY AND COMPETITIVENESS: LABOUR MARKET FLEXIBILITY, INNOVATION AND ORGANISATIONAL PERFORMANCE – Finnish National Report.** Helsinki: ETLA, Elinkeinoelämän Tutkimuslaitos, The Research Institute of the Finnish Economy, 2003, 109 p. (Keskusteluaiheita, Discussion Papers, ISSN 0781-6847; No. 875).

ABSTRACT: This overview report on flexibility and competitiveness for Finland starts with an outline of the performance and consequent restructuring of the Finnish economy over the past two decades. It then continues with a presentation and discussion of Finnish technology policy and the ICT miracle of the 1990s, which are key supporting factors behind the Finnish success story. The focus then shifts to an outline of the main features of labour market legislation and organisations, including the collective bargaining system implemented in Finnish working life, and the main modes of labour market flexibility. The report concludes with a summary of the main outcomes from interviews with representatives of the Ministry of Industry and Trade, the Ministry of Labour, the National Technology Agency (Tekes), the Confederation of Finnish Industry and Employers (TT) and the Central Organisation of Finnish Trade Unions (SAK).

KEY WORDS: Finland, labour market flexibility, labour market institutions, technology policy

JEL: O52

ASPLUND, Rita, **JOUSTAVUUS JA KILPAILUKYKY: TYÖMARKKINOIDEN JOUSTAVUUS, INNOVOINTI JA ORGANISAATIOMUUTOKSET – Suomea koskeva maaraportti.** Helsinki: ETLA, Elinkeinoelämän Tutkimuslaitos, The Research Institute of the Finnish Economy, 2003, 109 s. (Keskusteluaiheita, Discussion Papers, ISSN 0781-6847; No. 875).

TIIVISTELMÄ: Tämä Suomen talouden joustavuutta ja kilpailukykyä koskeva katsaus kuvaa ensin yleisesti taloudellista kehitystä ja siitä johtuvaa rakennemuutosta viimeisten kahden vuosikymmenen aikana. Katsauksessa siirrytään tämän jälkeen kuvailemaan suomalaista teknologiapolitiikkaa ja 1990-luvun ICT-ihmettä, jotka yhdessä vaikuttivat ratkaisevasti Suomen menestystarinaan. Seuraavaksi esitetään pääpiirteittäin työmarkkinalainsäädäntöä ja -instituutioita, mukaan lukien työelämää ohjaavaa sopimusjärjestelmää, sekä työmarkkinoiden joustavuuden päämuotoja. Katsauksen lopussa on yhteenveto eri vaikuttajatahojen edustajien kanssa tehdyissä haastatteluissa esiin tulleista ajatuksista ja näkökohdista. Haastateltavia tahoja olivat kauppa- ja teollisuusministeriö, työministeriö. Tekes, Teollisuuden ja Työantajain Keskusliitto (TT) sekä Suomen Ammattiliittojen Keskusjärjestö (SAK).

AVAINSANAT: Suomi, työmarkkinoiden joustavuus, työmarkkinoiden instituutiot, teknologiapolitiikka

JEL: O52

CONTENT

1. INTRODUCTION

1.1 Executive summary: The Finnish economy in a nutshell

Both the *World Economic Forum (WEF)* and the *International Institute for Management Development (IMD)* rank Finland amongst the most competitive countries in the world. Finland has gained this top position in just a few years due to a remarkable transition in the 1990s from an investment-driven to an innovation-driven economy.

The foundations for this economic success were laid in previous decades through continuous increases in investment in research and development (R&D) and education, as well as policy actions in favour of liberalisation and deregulation. Hence, current competitiveness is based on long-term strategies rather than pure luck.

The increase in R&D expenditure has been dramatic in the last two decades, with the GDP share of R&D expenditure being currently around 3.5%. In real terms, R&D expenditure more than doubled during the 1990s. A remarkable growth in business enterprise R&D expenditure – mainly in the electronics industry – explains a major part of the increase in total R&D expenditure. Today, business enterprises' share of R&D expenditure amounts to three-fourths. Despite notable increases in government R&D funding, the public sector has not been able to keep pace with the private sector and its share in both total and business R&D expenditure has declined to a level much below the EU and OECD averages.

The exceptional increase in public R&D input during the 1990s can be seen as an important ingredient of the fundamental change in industry policy thinking that started in the late 1980s. The concept of a national innovation system was adopted as an important instrument of Finnish science and technology policy as early as 1990, and in the mid 90s it was integrated with the concept of the knowledge-based society. The new economic policy that emerged from this redirection of strategies emphasises globalisation, innovations and productivity growth through increased knowledge and expertise. One of the main strengths of Finland's national innovation system is the collaboration between authorities, research institutes and companies. This institutionalised dialogue, which is evidently not very common internationally, definitely adds to the understanding of the interplay between technology policy and labour market flexibility actions underlying the economic success of the Finnish economy since the mid 90s.

The deep economic crisis in the early 1990s speeded up industrial restructuring, and in combination with investment in R&D and other intangibles increasing at an unprecedented rate, this created a considerably stronger industrial base for the Finnish economy. Indeed, many of the industries and companies that survived over the recession years have performed extremely well in terms of productivity growth. Measured by total factor productivity, Finland has, by now, even outperformed the world leader in productivity, the USA. It is, therefore, fair to state that although industrial and technology policies have had a major bearing on business performance, the Finnish success story has been primarily business-driven rather than an outcome of public policy-making.

The Finnish economy was growing at an exceptionally fast pace during the latter half of the 1990s. A major explanation for this extraordinary economic performance was the growth of export-based high-tech industries and, especially, of the information and com-

munication technology (ICT) industry. This growth performance has commonly been attributed to Nokia Corporation and the network that surrounds this internationally highly valued company. Apart from Nokia and its network of contractors, however, many other Finnish companies have also achieved exceptionally good economic performances.

A major concern and challenge is how Finland's competitiveness can be maintained in the future. Finnish innovation performance so far also reveals major weaknesses. Among the most crucial are the weakly developed venture capital industry, the low proportion of SMEs innovating in-house and the low proportion of new market capitalisations. Moreover, Finland's current competitiveness appears less favourable when using more typical definitions of competitiveness than the one adopted by the two leading authorities on international competitiveness – "the country can offer an attractive environment for firms' business activities". If this situation is conditional on all factors of production being fully employed and earning high returns and the long-term external balance of the country being maintained, then Finland's current competitiveness ranking might be considered too high. Measured by GDP per capita, Finland was, in 2001, only ninth among the 15 EU member states and fourteenth among WEF's 75 countries.

Key explanations for the average performance of Finland in terms of standards of living can be sought on the labour market. The recession in the early 1990s resulted in a tremendous rise in unemployment, from one of the lowest in 1990 (close to 3%) to one of the highest (over 16%) within the OECD area. The recession expedited a structural change of employment from industry to services, and weeded out the less viable companies in Finnish industry, bringing high productiveness at the cost of lost employment. The mass unemployment that ensued is still today reflected in an unemployment rate that has stagnated at a rather high level, making long-term unemployment and labour market exclusion central social problems that Finland has to face. The situation is compounded by demographics characterised by a rapidly increasing share of the elderly dependent population over the employed population.

Broadly speaking, labour market flexibility in Finland can be characterised as a combination of numerical and functional flexibility with little but slowly growing influence of wage flexibility. Major forms of numerical flexibility are redundancies, layoffs, temporary employment and working time adjustments. Functional flexibility is heavily focused on training and skills development, as well as other aspects of quality of working life. Wage flexibility is restricted by collective bargaining and high unionisation rates, for which reason employers have searched for alternative modes such as performance related pay schemes.

The key features of the Finnish economy can, thus, be summarised as top rank performance in R&D input, knowledge-intensive growth, competitiveness and productivity growth, but less than average performance when it comes to employment and unemployment despite considerable recent improvements in the functioning of the labour market.

1.2 Purpose of the study

Finnish competitiveness is largely built on knowledge and know-how. This requires flexibility and efficiently functioning national structures. The functioning of the labour market also has adopted to these criteria through increased flexibility. Such consensus has been

made possible by the active involvement of industry and labour market parts in technological policies and strategies.

This lays the foundation for the present study and dictates the structuring of the content of this report on flexibility and competitiveness for Finland. The report starts with an outline of the performance and consequent restructuring of the Finnish economy over the past two decades. It then continues with a presentation and discussion of Finnish technology policy and the ICT miracle of the 1990s, which are key supporting factors behind the Finnish success story. Chapters 4 and 5 report on the main features of labour market legislation and organisations, as well as the collective bargaining system implemented in Finnish working life. The main modes of labour market flexibility are discussed in Chapters 6 to 10.

The report is based on three sources: published and unpublished literature, available statistics and data sources, and interviews with key stakeholders. The interviews were conducted in December 2001 – January 2002 with representatives of the Ministry of Industry and Trade, the Ministry of Labour, the National Technology Agency (Tekes), the Confederation of Finnish Industry and Employers (TT) and the Central Organisation of Finnish Trade Unions (SAK). Issues covered were labour market flexibility and its mechanisms, the role of legislation and labour market organisations, the interaction between technology and labour market policies and the preferred future developments of labour market flexibility in Finland. The report concludes with a summary of the main outcomes from these interviews (Chapter 11).

2. ECONOMIC PERFORMANCE AND STRUCTURAL CHANGE

This chapter provides an overview of the extraordinary performance of the Finnish economy over the past few decades and the structural changes that this evolution has brought about. The emphasis is on trends in GDP and productivity growth, imports and exports, industrial structures and, ultimately, on competitiveness. The concomitant influence on the labour market in terms of employment, unemployment and the composition of the labour force is mainly analysed in the chapter focusing on employment trends and flexibility (Chapter 6). Only some overall employment growth and industry employment aspects are covered here, as a logical part of whole-economy performance and restructuring.

2.1 GDP growth and the Nokia effect

GDP growth in Finland displays the turbulence that the Finnish economy has experienced over the past few decades (Figure 2.1). The economy was booming towards the end of the 1980s and, suddenly in the early 1990s, was plunged into its deepest recession since the 1930 crisis.[1] Signs of a recession were already discernible in autumn 1990, but the depth of it was not realised until 1991 when GDP growth became strongly negative for the first time in the post-war period, causing a notable drop in GDP also in absolute terms.[2] Negative growth rates followed in 1992 and 1993, albeit declining in magnitude. As a result, the volume of the GDP declined by 10.4% between 1990 and 1993. Due to the strong export-led growth that started in manufacturing in the latter half of 1993 and that gradually spread to the rest of the economy, GDP growth jumped in 1994 and remained substantially higher than in pre-recession years, up to the new millennium. In 2001 Finland experienced the largest decline in GDP growth among EU member states compared to the annual average growth for the period 1995 to 2001 (Table 2.1).

The electro-technical industry and Nokia, in particular, have had a tremendous impact on GDP growth in post-recession years. This impact has taken the form of boosting GDP growth, as well as the amplitude of the fluctuations in annual growth rates. As is evident from Figure 2.1, the Nokia effect was greatest in 2000 when the company contributed 1.8 percentage points to the total growth of 5.6% in real GDP. The contribution of Nokia was, in other words, estimated to have been nearly one-third of total GDP growth. By 2001, both rates had dropped substantially – GDP growth to just above one per cent and the Nokia effect to almost zero (0.2%). The same year, Nokia's share of GDP was close to 3%. Indeed, the strong influence of Nokia and the electro-technical industry on the Finnish economy is expected to have come to an end. Telecommunications have turned into a "normal" industry.

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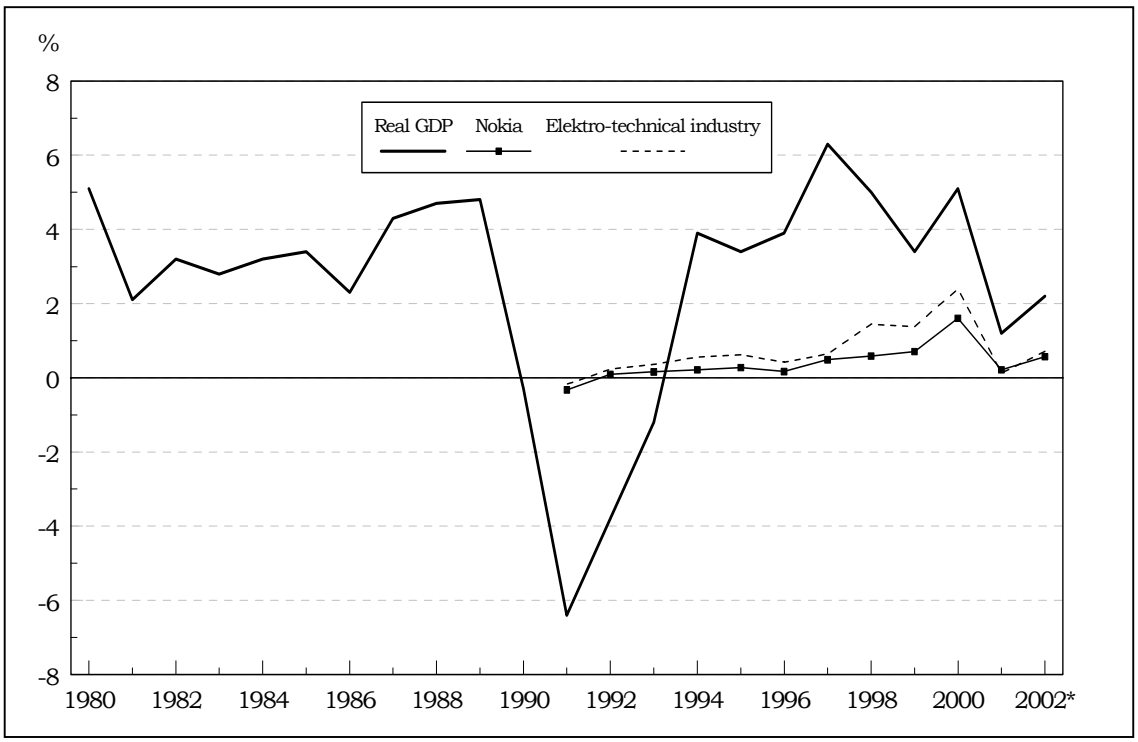
1 The recession of the early 1990s has been investigated in-depth, see e.g. the special issue of the journal *Finnish Economic Papers* 1996/1 and Santamäki-Vuori & Parviainen (1996).

2 A slightly negative (-0.4) growth rate was experienced in 1976 due to the oil crisis.

*Figure 2.1 Real GDP growth and the % point contribution to it by Nokia and the electro-technical industry, 1985 – 2002**



Source: ETLA's database and Ali-Yrkkö & Hermans (2002) and forecast of the 2002 effect

Table 2.1 Average annual growth in real GDP in selected countries, %

	1985 – 90	1990 – 95	1995 – 2001	2001
Finland	**3.3**	**-0.7**	**4.3**	**0.5**
Ireland	4.6	4.7	9.3	6.5
Greece	1.2	1.2	3.5	4.1
Netherlands	3.3	2.1	3.3	1.5
EU-15	3.3	1.4	2.4	1.6
United States	3.2	2.4	3.6	1.1

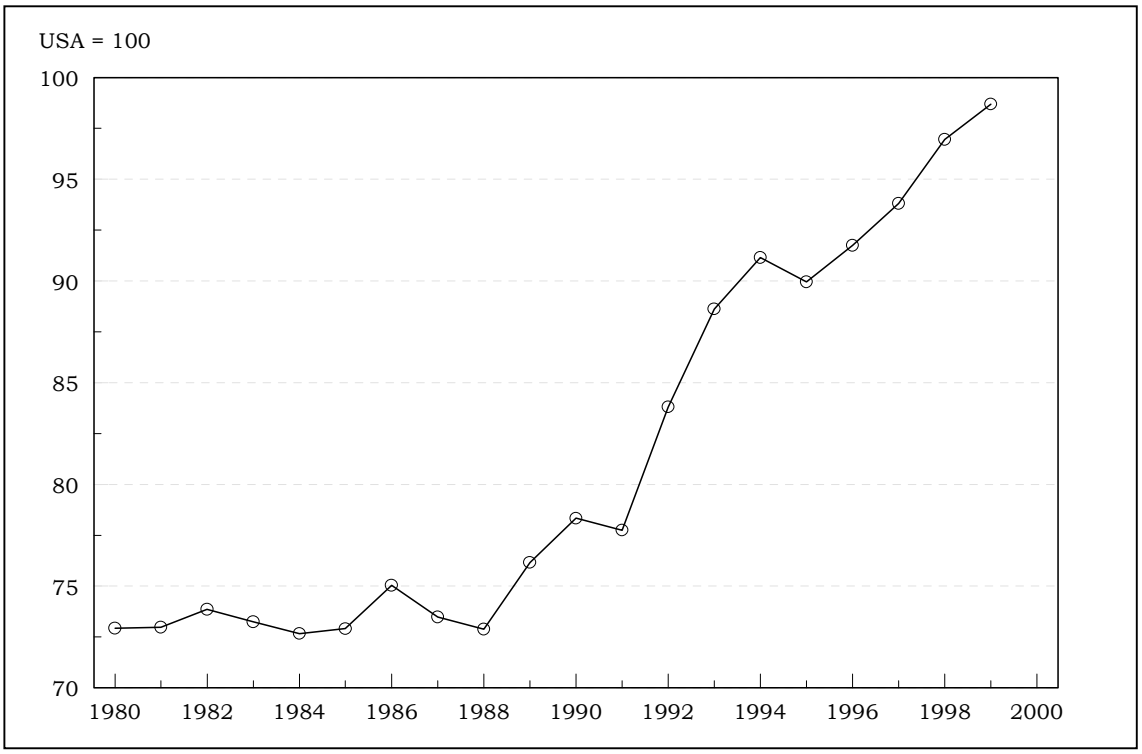
Source: European Commission: European Competitiveness Report 2002, Table I.2.

The average annual growth in real GDP was extremely rapid in Finland in the late 1990s even from an international perspective (Table 2.1). The only EU member states performing better were Ireland and Luxembourg. Important phenomena behind the high GDP growth rates in Finland in the latter half of the 1990s were an excellent productivity performance fuelled by high R&D intensity and the strong influence of technology-driven sectors producing spillovers to the rest of the economy. These underlying phenomena are discussed in the next sections.

2.2 Productivity growth through restructuring

A major explanation for the outstanding GDP growth rates in the Finnish economy in the post-recession years can be found in the dramatic strengthening of the manufacturing total factor productivity (TFP). Indeed, in just a few years, Finnish manufacturing managed to close the TFP gap relative to the USA (Figure 2.2) and has, in recent years, probably even outperformed US manufacturing in this respect.

Figure 2.2 Total factor productivity of Finnish manufacturing, 1980 – 1999



Source: Maliranta (1996) plus available updated numbers.

The processes behind this extreme productivity performance as measured by TFP have been subject to in-depth research in recent years.[3] A key outcome is that Finnish manufacturing has undergone a process that can be characterised as creative destruction á la Schumpeter and that this process intensified dramatically during the deep recession years. In other words, the considerable improvement in manufacturing TFP is largely the outcome of less productive companies and plants having been destroyed and surviving firms and plants having become even more productive than before.

This creative destruction process is also seen in official statistics. The total number of firms declined by no less than 33, 000 in the deep recession years, from over 218, 000 firms in 1990 to 185, 000 in 1994 (VATT 2000). As can be seen from Figure 2.3, the exit rate was high in all firm size categories, with the recovery being particularly rapid among small enterprises.

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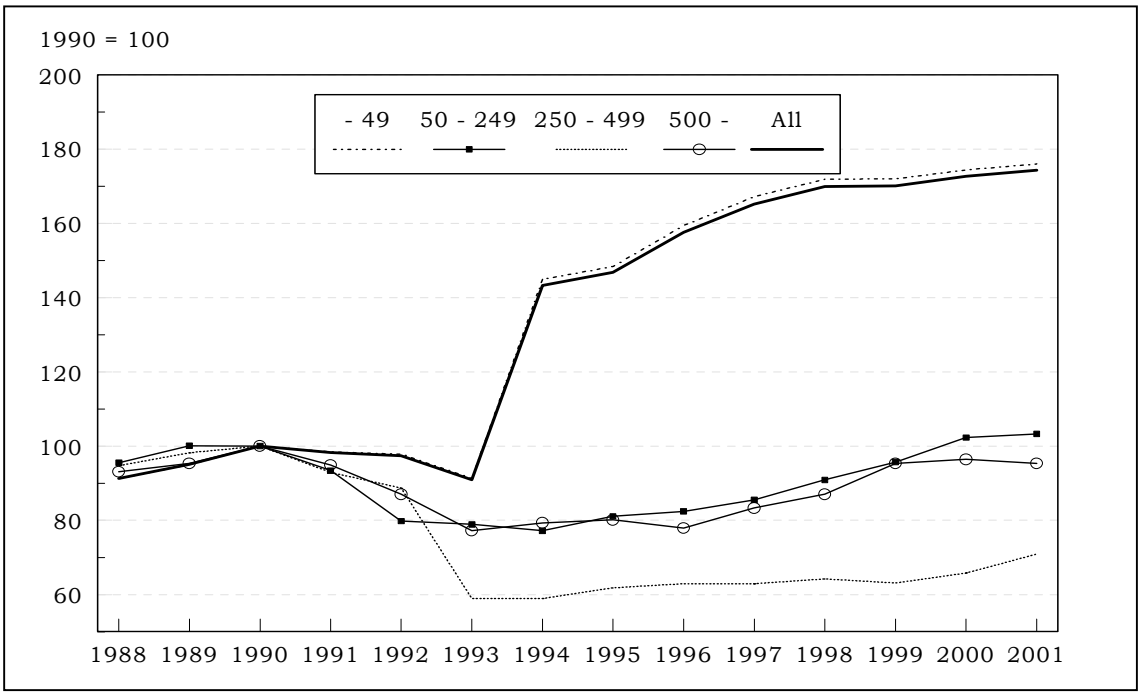
[3] See the comprehensive analyses undertaken by Maliranta (1996, 2001, 2002).

Figure 2.3 Number of firms by size, 1988 – 2001



Source: Statistics Finland

Apart from fundamental restructuring at the micro level of the economy, TFP growth also was boosted by notable increases in business R&D investment, further supported by public R&D subsidies and intensified networking between companies, creating not least a functioning and efficient ICT cluster. The rapid growth in R&D intensity and the growing importance of ICT clustering and capital accumulation are discussed in later sections.

Productivity performance, however, stands out as less impressive when looking at labour productivity instead of total factor productivity. The improvement in GDP growth towards the new millennium, as displayed in Table 2.1 above, was accompanied by a weakening performance in labour productivity, with Finland being outperformed by Ireland, Greece and Portugal (Table 2.2). The average annual growth of GDP per employed person for 1995 to 2001 was notably lower compared to the corresponding growth rate for 1990 to

Table 2.2 Labour productivity growth in selected countries, %

	1985 – 90	1990 – 95	1995 – 01	2001	USA = 100 in 2001
Finland	**3.0**	**3.2**	**2.1**	**-0.8**	**77**
Ireland	3.5	2.7	4.0	4.1	90
Greece	0.5	0.7	3.0	3.0	64
Netherlands	1.1	1.2	0.7	-0.4	94
EU-15	1.9	1.9	1.2	0.5	78
United States	1.0	1.2	1.9	1.2	100

Note: Labour productivity growth is defined as growth of GDP per employed person.
Source: European Commission: *European Competitiveness Report 2002*, Table I.4.

1995, and was, in effect, negative (-0.8) in 2001. Measured by labour productivity, Finland still lagged far behind the USA in 2001 (index = 77).

This trend in output growth per employed person, of course, mirrors employment growth over these years. Compared to most other EU member states, the creation of new jobs has been rather satisfactory in Finland, with higher employment growth rates for the period 1995 to 2001 obtained only by Ireland, Spain, the Netherlands and Luxembourg (Table 2.3). More details on the evolution of employment and unemployment are provided in the section on employment trends in Chapter 6.

Table 2.3 Employment growth in selected countries, %

	1985 – 90	1990 – 95	1995 – 01	2001	Employment rate in 2001
Finland	**0.3**	**-3.8**	**2.1**	**1.4**	**67**
Ireland	1.1	1.9	5.1	2.3	67
Greece	0.7	0.6	0.5	1.1	55
Netherlands	2.3	1.1	2.5	2.0	76
EU-15	1.4	-0.6	1.2	1.1	66
United States	2.0	0.9	1.3	-0.1	74

Source: European Commission: *European Competitiveness Report 2002*, Table I.3.

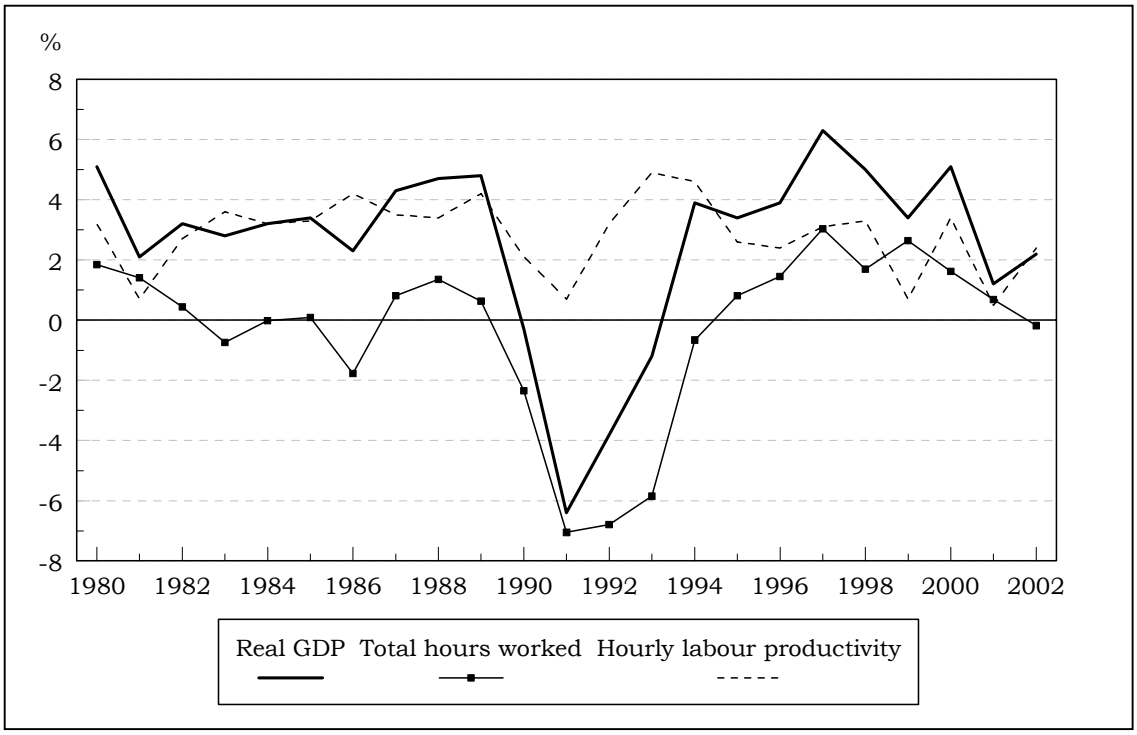
A similar downward trend is discernible when measuring productivity as output growth per hours worked instead of per employed person. From having reached an annual average rate of 3% over the period 1980 to 1990, hourly labour productivity growth had dropped to an average of 2.3% per annum for the period 1991 to 1999 (European Commission: *European Competitiveness Report 2002*, Table II.4). Figure 2.4 draws together the growth trend in real GDP, total hours worked and hourly labour productivity.

The highly different performance of Finland, depending on whether focusing on total factor productivity or labour productivity, explains many of the different opinions about Finnish productivity performance that have been expressed and debated in Finland in recent years. Indeed, productivity growth has occasionally been claimed to be surprisingly weak in view of the physical capital, human resources and technological advances, including ICT, in use in, and available to, Finnish businesses.

Evidently, this discrepancy in views relates strongly to whether the role of ICT is seen from the conventional supply-side angle or from the demand-side – New Economy – perspective. The large size of the ICT capital accumulation and technology-driven industries is reflected in total factor productivity growth and Finland is, indeed, a leading provider of ICT. Moreover, Finland has succeeded in creating an effective ICT cluster to support the diffusion of ICT both within the cluster and to the rest of the economy. But Finland is not an equally advanced user of ICT, which is in conformity with the finding of rather weak performance in terms of labour productivity. Further support for this argument is obtained when comparing Finland to another ICT leader, *viz*. the USA. While in the USA two-thirds of the contribution of ICT to labour productivity growth comes from use, the corresponding ratio for Finland is estimated to be only one-third.[4]

[4] The role of ICT use for labour productivity growth and GDP growth is analysed by e.g. Jalava & Pohjola (2001). Also see the European Commission's *European Competitiveness Report for 2001*.

Figure 2.4 Annual growth rates of real GDP, total hours worked and hourly labour productivity, 1985 – 2002



Source: ETLA's database

In this context it may, finally, be noted that labour productivity growth seems to have reached much the same magnitude in business service sectors as in manufacturing. Labour productivity growth in total business sector services was estimated at an average of 2.1% per annum in the period from 1995 to 1999 (European Commission: *European Competitiveness Report 2002*, Table III.2). Of the nine countries covered in the comparison, a higher growth rate was obtained only for the USA. The excellent performance of Finnish business sector services is due to very high labour productivity growth in post and telecommunications (14.1%) and financial intermediation (12.6%). In view of the above discussion, the question arises whether the business service sectors, and these two services in particular, have been able to implement ICT in a much more efficient way than manufacturing. In other words, are business services the leading user and manufacturing the leading provider?

2.3 Explosion in R&D investment and high innovation rankings

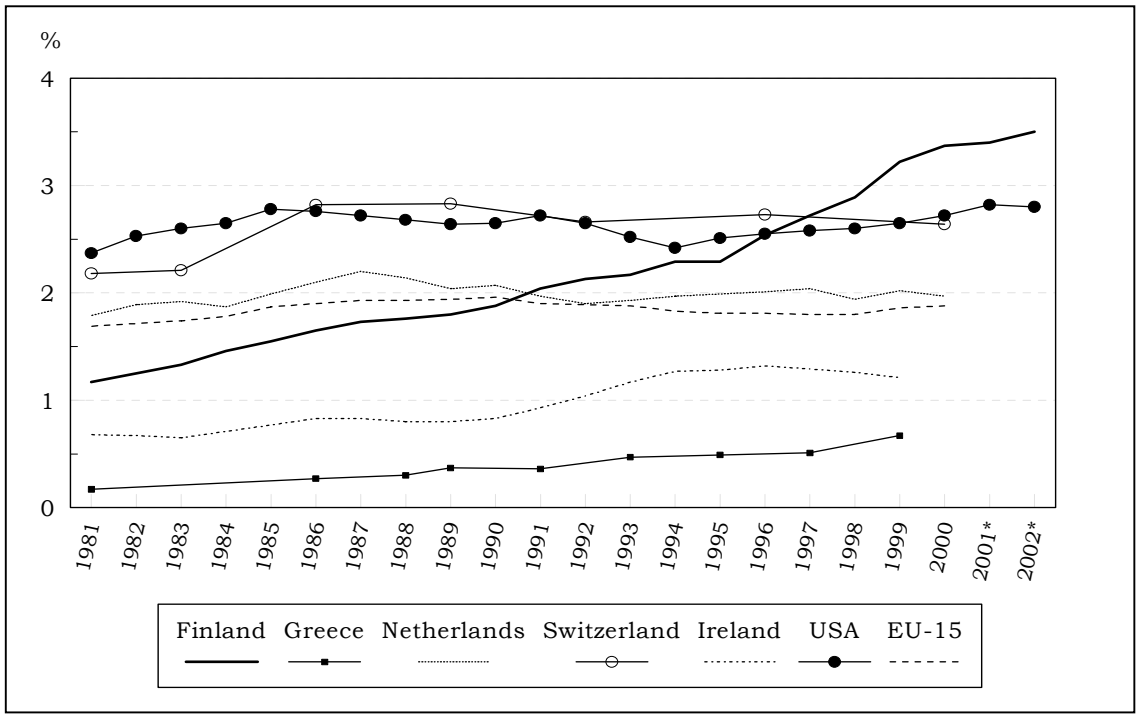
The steady increase in R&D investment in the 1980s speeded up during the 1990s. In the early 1980s, Finland allocated about 1% of GDP to R&D investment, as measured by gross domestic expenditure on R&D. At the turn of the decade, this share had reached the 2% level and, even before entering the new millennium, it had exceeded the target of 3% of GDP set by the Science and Technology Policy Council (STPC)[5] for 2000 (Figure 2.5). Preliminary statistics indicate that the share of R&D expenditure in GDP remained in 2001

[5] Information on the Science and Technology Policy Council and its role in Finnish science and technology policy is provided in Chapter 3.

at the same level as in 2000, or 3.4%, but is estimated to have increased to 3.5% in 2002. Due to this rapid growth in R&D input, Finland now ranks second in the world. The only country with an even higher GDP share is Sweden.

As in most other industrialised countries, an increasing share of R&D activities is performed by the business enterprise sector. In 1999 close to 70% of R&D was executed by business enterprises, compared to some 55% in the early 1980s.[6] In line with this, business R&D intensity (in domestic product of industry) has shown one of the highest annual growth rates (over 7%) in the OECD area since the early 1990s. In 1999, business R&D intensity was 3.2%, with only Sweden showing a higher figure (4.7%). The growth in business R&D intensity can be traced to increased R&D activities in virtually all industries in both manufacturing and services.

Figure 2.5 R&D expenditure (% of GDP) compared with selected countries and economic areas, 1981 – 2002



Source: OECD STI and Statistics Finland

The business enterprise sector not only performs but also funds an increasing share of R&D activities. Since the early 1980s, its funding share has expanded from about 55% to around 67% (in 1999). As a percentage of GDP, this corresponds to an increase from 0.65% to 2.1%, again a top-ranking figure among OECD countries. The funding share of the business enterprise sector is estimated to be 72% for 2001.

Simultaneously, the relative importance of government funding of R&D has declined. This is due not to an absolute decrease in government sources devoted to R&D, but to a growth rate in public R&D funding that, in more recent years, has failed to keep pace with that in private R&D funding. Public R&D funding is outlined in more detail in Chapter 3.

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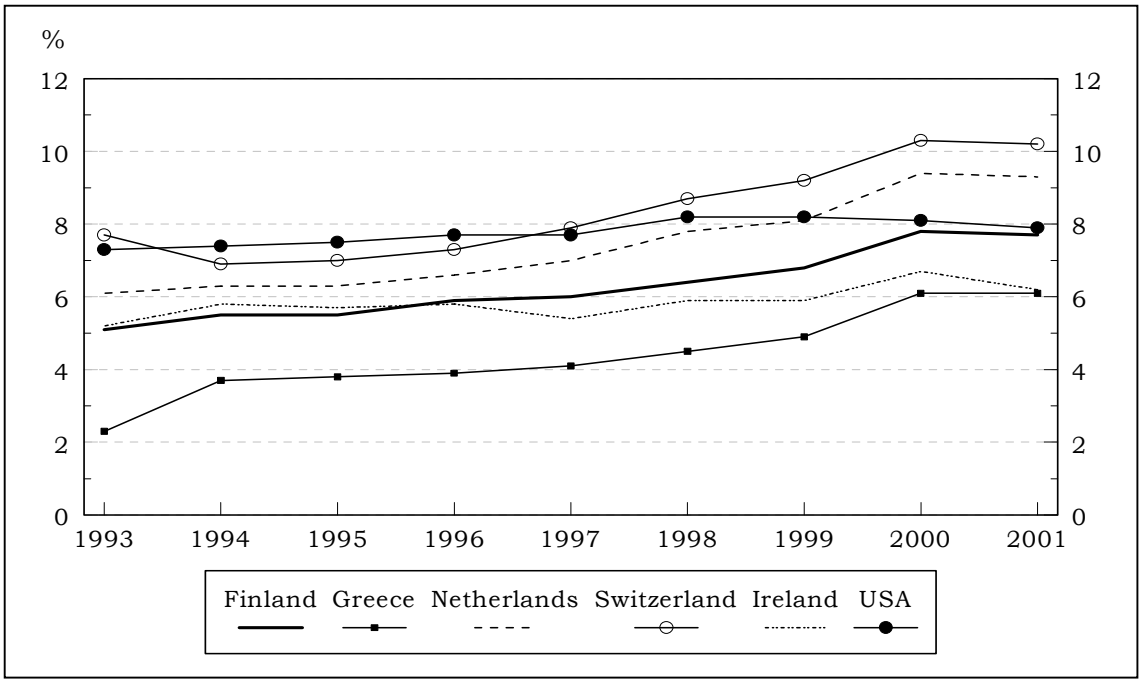
[6] These numbers for the business enterprise sector are taken from OECD (2001).

Nokia has contributed considerably to this rapid growth in R&D input. In 2001, Nokia accounted for approximately one-third of the total R&D expenditure and for an estimated share of 47% of business R&D input. Compared to the public R&D input, Nokia invests twice as much. Indeed, if Nokia is excluded the R&D share of GDP drops to 2.4% for 2001.[7] However, this share exceeds clearly the EU average. The electronics industry accounts for most, some two-thirds, of total R&D expenditure. Furthermore, Nokia alone is estimated to be responsible for about half of the manufacturing R&D input, because the company still is spending a large share of its R&D budget in Finland.[8]

Figure 2.6 Total ICT spending as a percentage of GDP compared to selected countries, 1993 – 2001



Source: WITSA (2002, p. 36)

With this background, it is hardly surprising that ICT spending has also grown rapidly since the early 1990s. Indeed, over the period 1993 to 2001 the ICT market grew faster in Finland (11%) than in the USA (close to 7%).[9] ICT spending as a percentage of GDP increased from 5.1% in 1993 to 7.8% in 2000, but is estimated to have dropped slightly in 2001 (Figure 2.6). A minor slump also occurred in the Netherlands and Switzerland, while the situation remained unchanged in Greece. The ICT industry recession was reflected much stronger in the GDP share of ICT in Ireland and the USA. One notable feature, however, is that despite the downturn in 2001, in all these small European economies ICT spending as a percentage of GDP remained at a clearly higher level than in 1999. This was not the case for the USA.

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7 Ali-Yrkkö & Hermans (2002).

8 This share has been estimated to be approximately 60% (Ali-Yrkkö *et al.* 2000).

9 This was also the case for Greece (almost 17%), Ireland (about 12%) and the Netherlands (over 7%), while Switzerland experienced one of the slowest growth rates (4.5%) in Western Europe. WITSA (2002, p. 27).

Many forces have contributed to the slowdown in total ICT spending. There are, nevertheless, trends in the opposite direction. Among these are e-commerce and Internet. For instance, the percentage of IT spending on e-business in Finland moved from 6% in 1999 to 10% in 2001. Greece experienced a similar trend (from 6% to 9%). Switzerland and Ireland were, respectively, 14% and 16% in 2001 from having been at the same level (9%) in 1999. The Netherlands saw the most moderate growth in e-business among these five nations (from 8% in 1999 to 10% in 2001).[10]

Aggregate ICT spending is dominated by telecommunications. The growth in telecommunications spending over the period 1993 to 2001 was clearly higher than in total ICT spending for Greece (18.2% compared to 16.6% for total ICT spending); slightly higher for Finland (11.3% versus 10.9%); about the same for Ireland (about12%) and the Netherlands (7.4%); but notably lower for Switzerland (2.2% versus 4.5%).[11] In the USA, telecommunications spending also grew at a slower rate (4.9%) than total ICT spending (6.7%) in 1993 – 2001.

These success stories in R&D and ICT spending have pushed Finland high up in the innovation indicator rankings. In the European Commission *2001 Innovation scoreboard,* Finland is top in the EU in four out of the eighteen indicators scored, *viz.* population with a tertiary education as a percentage of the 25 – 64 year-old age classes; public R&D expenditures as a share of GDP; European Patent Office (EPO) high-tech patent applications per million population[12]; and US Patent Office (USPTO) high-tech patent applications per million population (Table 2.4). In the case of business expenditure as a percentage of GDP, Finland is outperformed only by Sweden. Finland is ranked third when it comes to employment in high-tech services as a percentage of the total workforce; innovation expenditures as a percentage of all turnover in manufacturing; and per cent of manufacturing value-added in high-tech sectors. The innovation scoreboard accordingly lists the following major strengths of the Finnish economy relative to other EU member states: population with tertiary degree; public and business investment in R&D; high-tech patenting; and Internet penetration[13].

Indicator numbers lower than the top 3 rankings, but still clearly above the EU average, are obtained for participation in life-long learning measured as a percentage of the 25 – 64 year-olds; manufacturing SMEs involved in innovation co-operation; high-tech venture capital investment as a percentage of GDP; and home Internet access as a percentage of all households.

Finland performs close to the EU average with respect to new S&E graduates as a percentage of the 20 – 29 year-old age class; employment in medium-high and high-tech manufacturing as a share of the total workforce; innovation expenditures as a percentage of all turnover in manufacturing (which, nevertheless, is enough for third ranking, as noted above); new-to-market products as a percentage of all manufacturing sales; and share of ICT markets as a percentage of GDP.

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[10] The corresponding development in the USA was from 13% in 1999 to 17% in 2001 (WITSA 2002, p. 44).
[11] WITSA (2002), pp. 27 and 28.
[12] For more details, see Zoppè (2002).
[13] Some statistics highlighting Internet penetration are provided in the Annex of this chapter.

Table 2.4 The 2001 Innovation scoreboard – main results for Finland

Indicator	EU mean	Finland	Ranking	Relative size	EU average = 100
S&E graduates / 20 – 29 yrs	10.4%	10.4%	4	average	100
Population with tertiary ed.	21.2%	32.4%	1	above	153
Participation in life-long learning	8.4%	19.6%	4	above	233
Employed in med/high-tech manufacturing	7.8%	7.2%	7	average	92
Employed in high-tech services	3.2%	4.3%	3	above	134
Public R&D / GDP	0.66%	0.95%	1	above	144
Business R&D / GDP	1.19%	2.14%	2	above	188
High-tech EPO patents /pop.	17.9	80.4	1	above	449
High-tech USPTO patents / population	11.1	35.9	1	above	323
SMEs innovating in-house	44.0%	27.4%	11	below	62
SMEs innovation co-op.	11.2%	19.9%	4	above	178
Innovation expenditure / total sales	3.7%	4.3%	3	average	116
High-tech venture capital / GDP	0.11%	1.38%	5	above	128
New capital raised / GDP	1.1%	0.3%	12	below	27
Sales of new-to-market products	6.5%	7.3%	5	average	112
Home internet access	28.0%	44%	4	above	157
ICT markets / GDP	6.0%	6.0%	9	average	100
High-tech value added in manufacturing	8.2%	12.5%	3	above	152
Summary Innovation Index		4.7			

Notes: Relative size illustrates whether the indicator is more than 20% above the EU average (above) or more than 20% below the EU average (below). Definitions of the indicators can be found in the text.

Source: European Commission: *2001 Innovation scoreboard*, different tables.

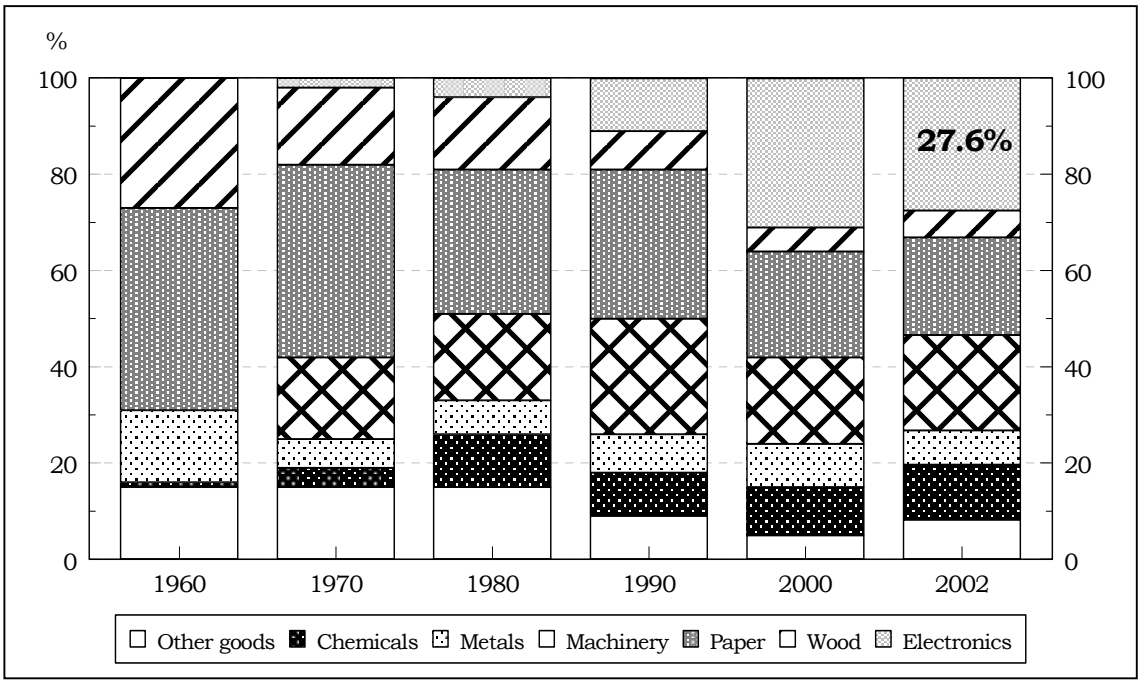
A weak, and notably lower than EU average performance, is scored for two indicators: new capital raised on stock markets as a percentage of GDP and SMEs innovating in-house as a percentage of manufacturing SMEs. The latter is, in effect, seen as a major weakness relative to other EU member states.

The summary innovation index is calculated to be 4.7, which ranks Finland third after Sweden (6.5) and the USA (5.6). The overall trend indicates that Finland has been rushing further ahead; the already high summary innovation index combines with an improvement rate far above the EU average. An even higher improvement rate is calculated for such as Ireland and Greece, but their innovation performance is notable lower than that of Finland. Ireland ranks eighth with a summary innovation index of 1.2, and Greece sixteenth (-7.9) with only Portugal having an even lower index (-8.7). The Netherlands ranks seventh (2.9), but in combination with an improvement rate much below the EU average, the country is classified as “losing momentum”.

2.4 New import and export patterns

The fact that Finland, during the 1990s, managed to become one of the leading providers of ICT has profoundly reshaped the structure of Finnish imports and exports. Figure 2.7 reveals the substantial increase in the relative importance of exports of electronics and electromechanical products that occurred during the past decade. The figure includes statistics from 1960 to underscore how dramatic the change has been, away from the traditional export goods of wood, pulp and paper products. The recent turbulence in the ICT sector coupled with uncertainty in the global economy resulted in 2001 in a cut off in the exports of electronics and electromechanical products, which continued in 2002.

Figure 2.7 Exports of goods by industry, 1960 – 2002



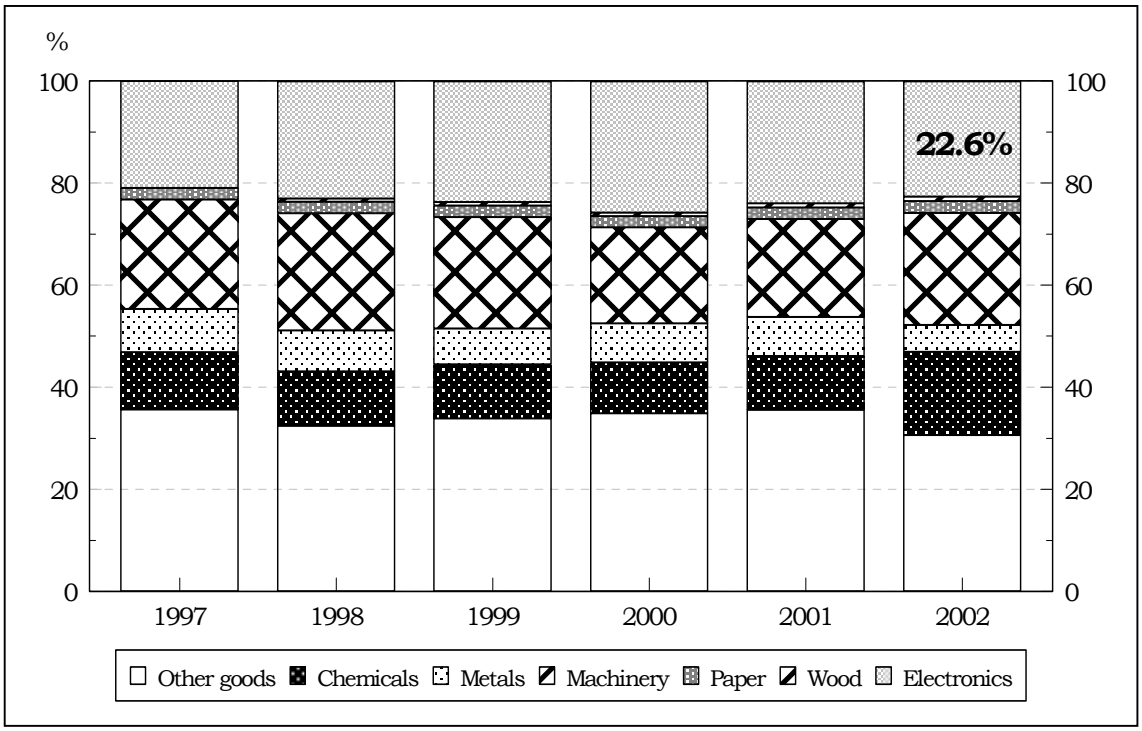
Source: Board of Customs

Unfortunately, available statistics cannot tell about the corresponding change in the composition of imports of goods, as a similar decomposition has been produced only since 1997. The important role of electronics and electromechanical products in recent years also in imports is evident, nevertheless (Figure 2.8).

Another way to illustrate the explosive change in the importance of ICT in Finnish trade is to look at the relative share of high-tech exports in total exports. This share was less than 7% in 1990 and some 11% in 1994. By 2000, it had increased to 23% or almost one-forth of total exports, a share very close to that of the UK but still lower than the corresponding share for Japan, the USA and the world leader, Ireland.

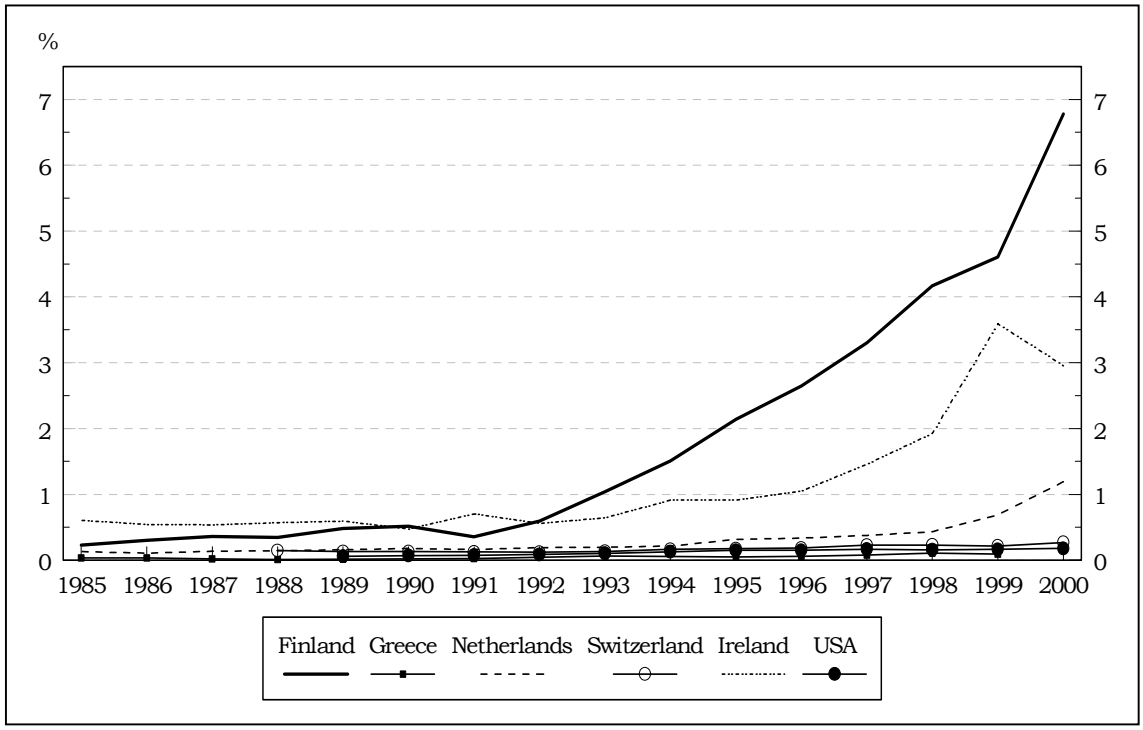
A third alternative is to focus on the import and export activities related to telecommunications equipment. This is done in Figures 2.9 and 2.10, in comparison with selected countries. Finland's outstanding position as a provider of telecommunications equipment is evident from Figure 2.9. In 2000, the export share of telecommunications equipment in GDP was close to 7%, compared with only 1% in 1993. The corresponding share for the other countries is modest with Ireland coming closest with a share having increased to some 3% by 2000.

Figure 2.8 Imports of goods by industry, 1997 – 2002



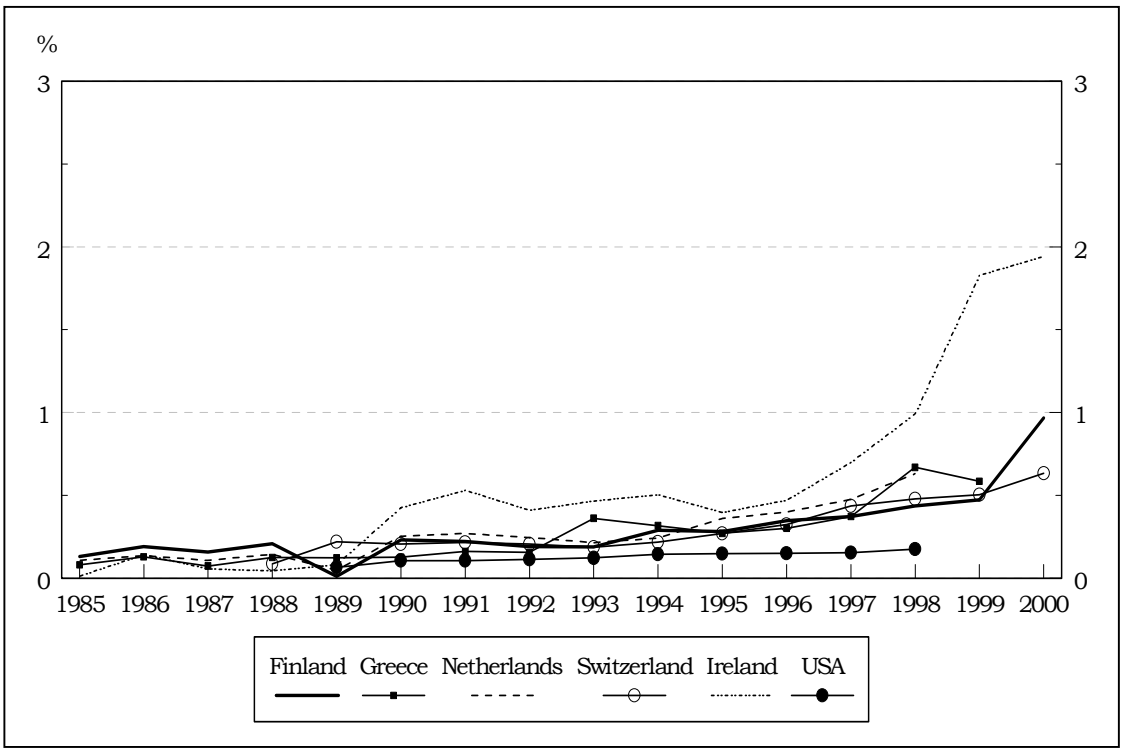
Source: Board of Customs

Figure 2.9 Exports of telecommunications equipment as a percentage of GDP compared to selected countries, 1985 – 2000



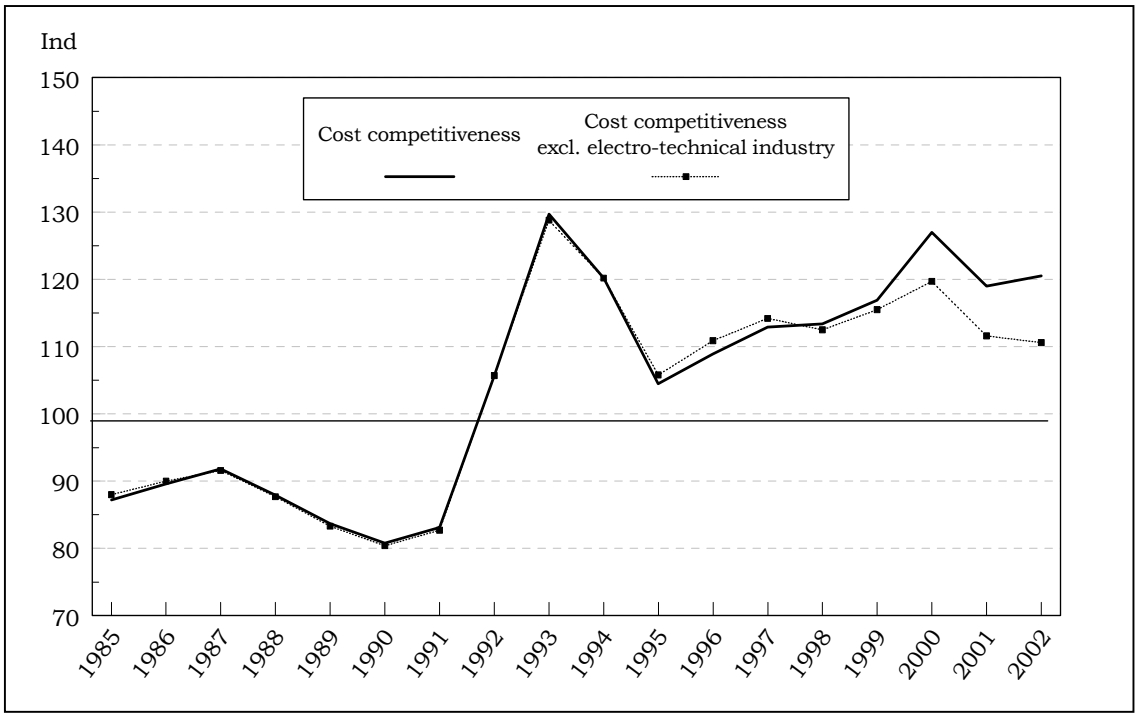
Source: Calculations based on The ITU World Telecommunication Indicators Database

Figure 2.10 Imports of telecommunications equipment as a percentage of GDP compared to selected countries, 1985 – 2000



Source: Calculations based on The ITU World Telecommunication Indicators Database

Figure 2.11 Relative unit labour costs of Finnish industry, OECD/Finland, 1985 – 2002



Source: ETLA's database

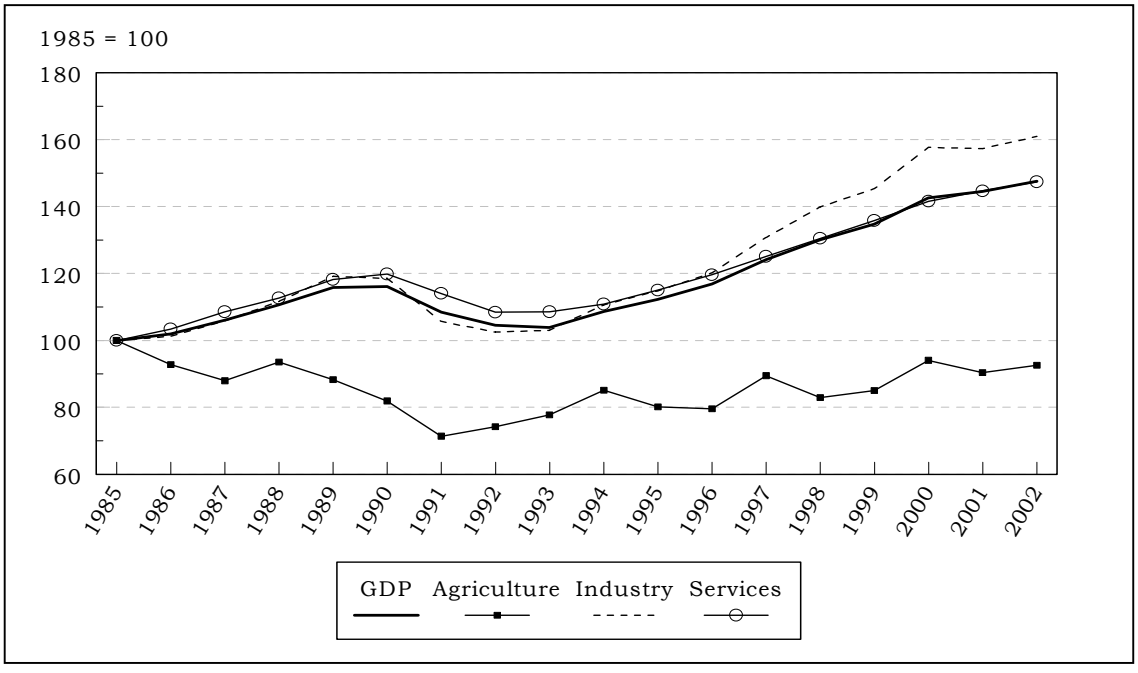
A similar but much more moderate trend is seen in imports, mainly explained by the manufacture of components having been, to an increasing extent, moved abroad to the companies' own or sub-contractors' plants (Figure 2.10). Still in 2000 the imports of telecommunications equipment was less than one per cent of GDP. Here, the conspicuous exception is Ireland, where the activities of multinational companies had raised the GDP share of imports of telecommunications equipment to 2% by the turn of the millennium.

The Finnish success in trade, and especially with electronics and electromechanical products, has been strongly supported by a favourable development of relative unit labour costs of Finnish industry. This favourable trend, which started in the deep recession years of the early 1990s, is displayed in Figure 2.11, separately for total cost competitiveness and cost competitiveness when excluding the electro-technical industry. Indeed, the wages of Finnish engineers are relatively low compared to other industrialised countries, for which reason ICT has been comparatively cheap to develop.

2.5 Profound industrial restructuring

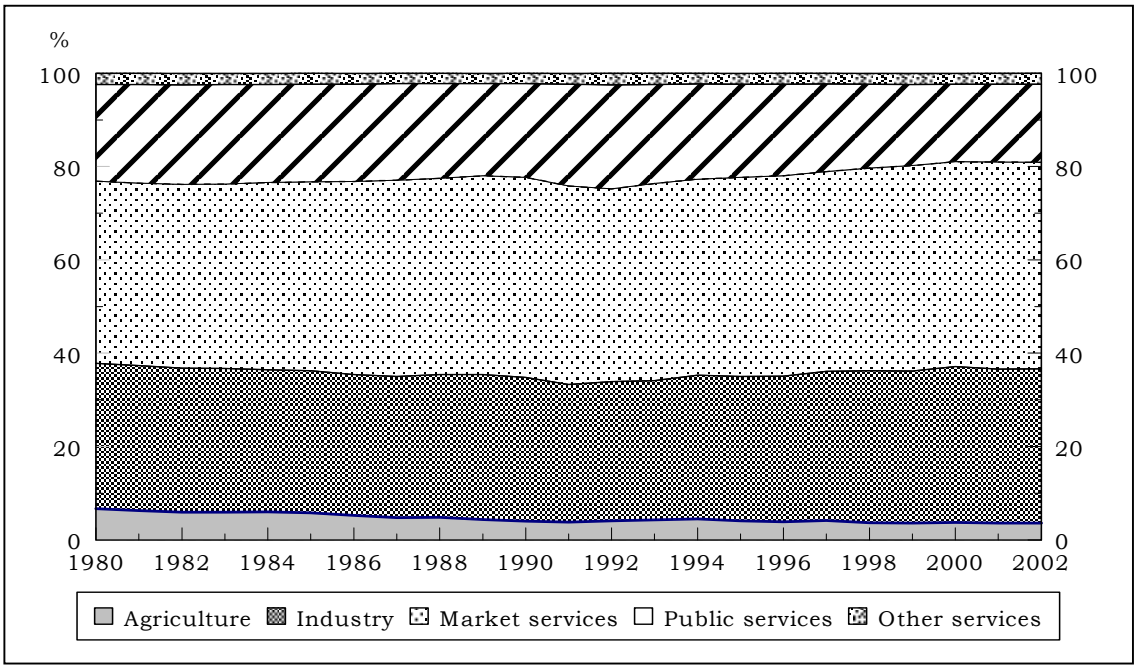
Most fundamentally the strengthening of the Finnish economy through ICT has been reflected in industry structures with respect to both value added and employment. A traditional sector composition shows that the industry sector still leads when tracing volume trends (Figure 2.12), while decomposition according to relative shares reveals the rapidly growing role of services in total output (Figure 2.13). The share of the services sector in real GDP has increased to over 60%, with business sector services covering a

Figure 2.12 Volume trend in GDP, agriculture, industry and services, 1985 – 2002



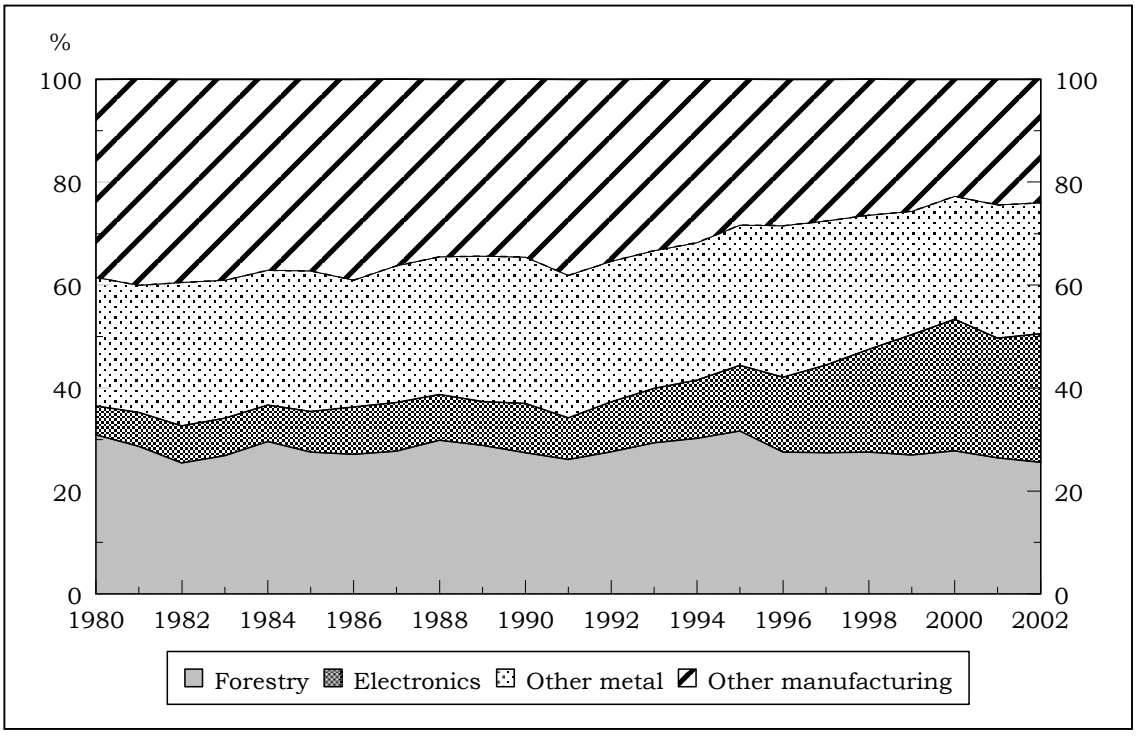
Source: ETLA's database

Figure 2.13 Relative shares of agriculture, industry and services in real GDP, 1980 – 2002



Source: ETLA's database

Figure 2.14 Compositional structure of manufacturing value added, 1980 – 2002



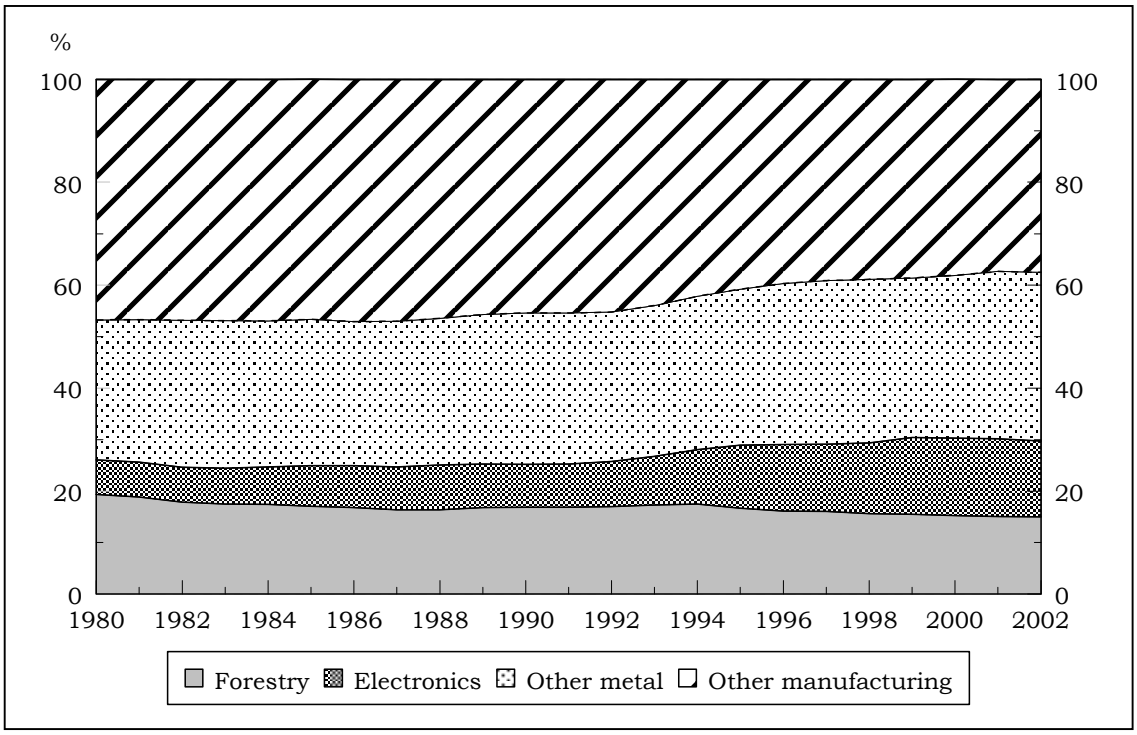
Source: ETLA's database

steadily growing portion of the sector's output. The relative share of industry has decreased to one-third of real GDP, while agriculture contributes less than 4%.[14]

A closer look at the compositional structure of manufacturing reveals, as is also to be expected, a tremendous increase in the value added share of the electro-technical industry (Figure 2.14). Moreover, the expansion of this industry has occurred at the expense of the consumer goods industry; the relative shares in total manufacturing value added of the forest and metal industries have remained approximately unchanged over the past decades. At the turn of the millennium, the four broad industry categories contributed an almost equally large share to total manufacturing value added.

The corresponding distribution of those employed in manufacturing is shown in Figure 2.15. The employment share of the electro-technical industry has doubled between 1980 and 2002, from below 7% to nearly 15%. A slight improvement in the relative employment share is noted for the rest of the metal industry. The forest industry has seen a corresponding decline in its employment share. A much more notable drop has occurred in the employment share of other manufacturing industries, which in 2002 employed an only somewhat larger share (some 37%) than the category of other metal industries (about 33%).

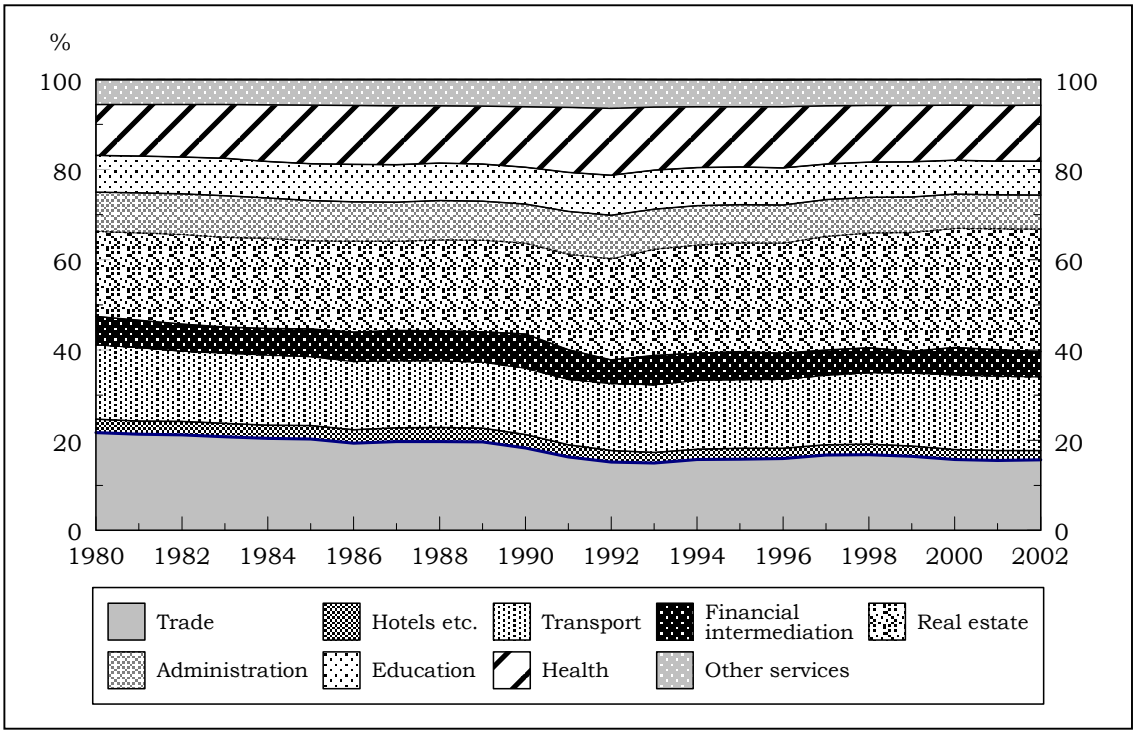
Figure 2.15 Compositional structure of manufacturing employment, 1980 – 2002



Source: ETLA's database

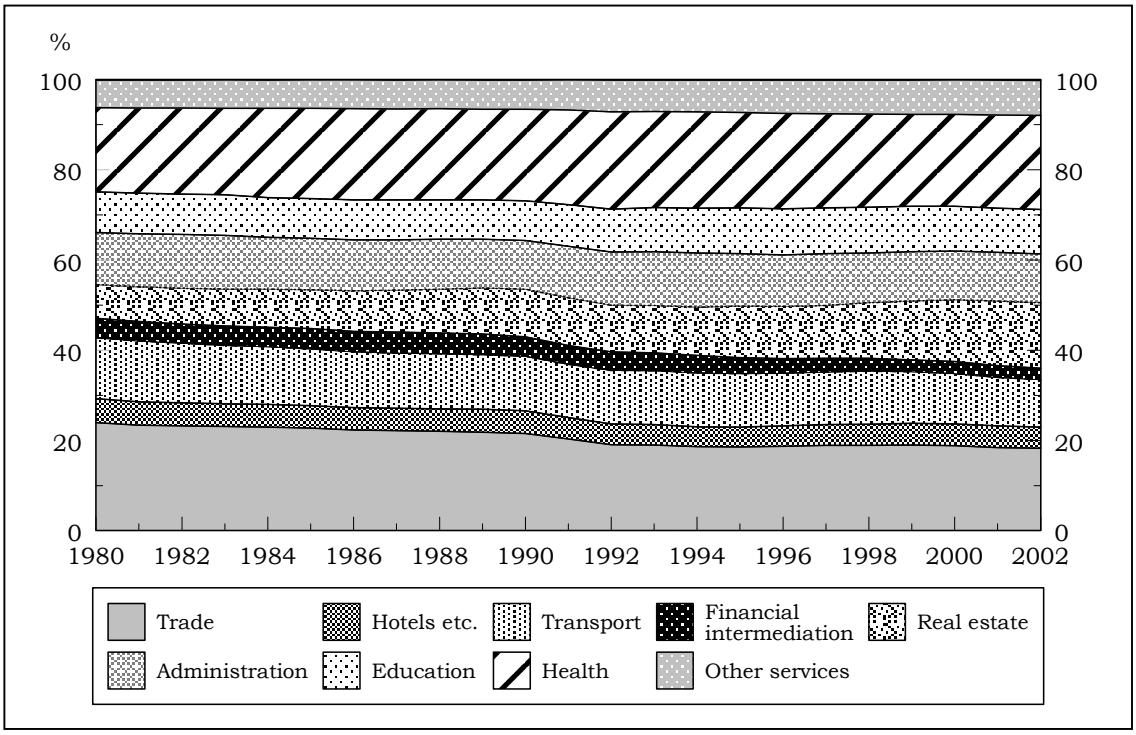
[14] Due to differences in productivity growth, this traditional way of dividing the economy into sectors displays even larger compositional changes when it comes to employment (see Chapter 6).

Figure 2.16 Compositional structure of service sector value added, 1980 – 2002



Source: ETLA's database

Figure 2.17 Compositional structure of service sector employment, 1980 – 2002



Source: ETLA's database

The corresponding trends in the services sector are displayed in Figure 2.16 and Figure 2.17. The most conspicuous change has occurred in the case of services related to real estate. The relative share of real estate in total value added of the services sector had by 2002 increased to over 27%, compared to less than 20% in 1980. Its relative employment share of total service sector employment had, however, grown more slowly, to just over 14% in 2002 from less than 8% in 1980. This further supports the European Commission results of considerable labour productivity growth in services in Finland, especially in the 1990s, referred to above.

2.6 Outcome: Top competitiveness rankings

The extraordinary performance of the Finnish economy in post-recession years up to the new millennium in terms of economic and (total factor) productivity growth has, thus, been largely driven by tremendous increases in business R&D and ICT investment. A key supportive ingredient of this process has been the science and technology policy pursued by the government, for which reason it is well justified to look in more detail at industrial policy thinking in Finland and its evolution over time. This is done in the next chapter.

The joint efforts of the private sector and the government to increase R&D expenditure and to create a functioning and efficient ICT cluster have also contributed substantially to the top rankings that Finland has achieved in recent years in international competitiveness comparisons.[15] In its 2001 comparison of 75 economies, the *World Economic Forum (WEF)* ranked Finland the most competitive nation, albeit the USA outperformed Finland in the 2002 comparison. These top rankings were reached both according to the Microeconomic Competitiveness Index (MICI) and the Growth Competitiveness Index (GCI). According to the latter, Finland ranked only sixth in 2000, eleventh in 1999, and even worse in 1996 to 1998. Of the factors emphasised by WEF as supporting the Finnish competitiveness rankings, most are linked to science and technology efforts of the private and public sectors.

The *International Institute for Management Development (IMD)*, on the other hand, ranked Finland third in 2001, out of 49, after the USA and Singapore. By 2003, Finland had outperformed Singapore, ranking first among 29 countries with a population less than 20 million. In view of Finland's low position in 1993 (25th out of 38 countries), the improvement in ranking as been remarkable. Any improvement in rankings should, though, be also evaluated against changes in the countries covered in each year in the comparisons.

These successful competitiveness rankings are, no doubt, positive for Finland in an international perspective. They do not, however, mean that Finland can sit back and admire its excellence. Instead the long-term perspective should be the guiding one also in the future, especially since considerable economic challenges remain, the most severe being unemployment.

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[15] For a more detailed presentation of the Finnish competitiveness rankings and a discussion of their relevance and accuracy, see Rouvinen (2001).

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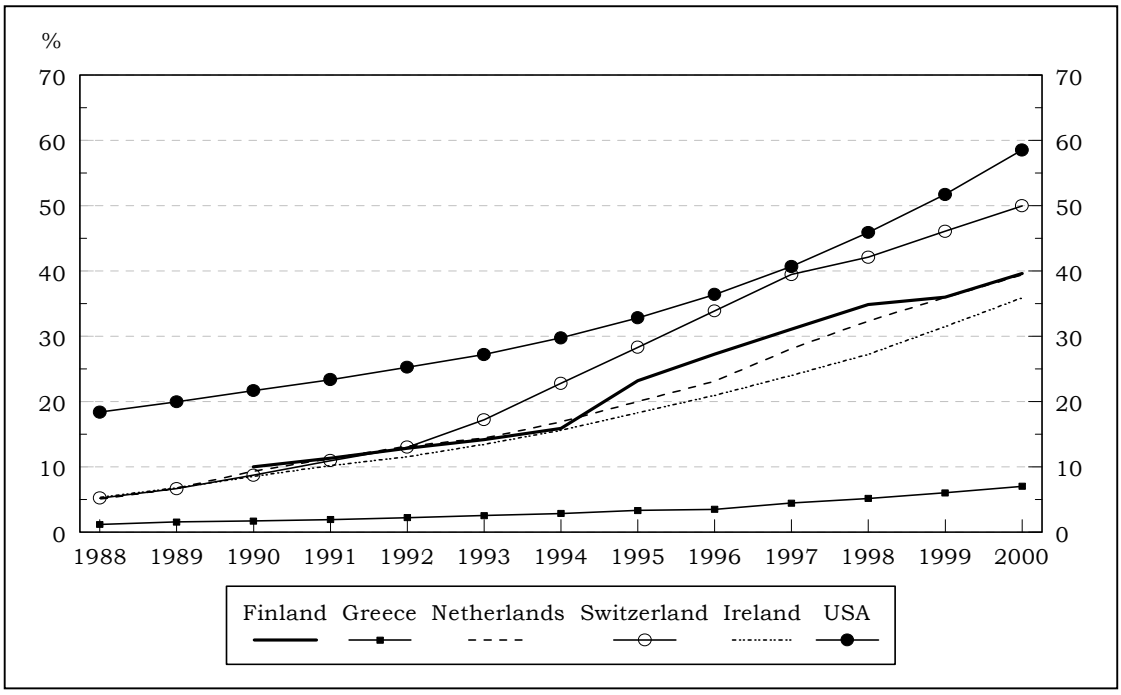
Annex of Chapter 2: Internet penetration in Finland

The number of personal computers and online users are commonly used indicators in international comparisons of the Internet. A major problem, however, is that the country-specific figures actually reported tend to vary considerably across databases. According to the series drawn in Figure A2.1, the number of personal computers per capita increased in Finland from about 14% in 1993 to close to 40% in 2000. Based on WITSA (2002), on the other hand, the installed base of personal computers per capita was 13.4% in 1993, increasing to some 36% in 1999, but then dropping to about 33% in 2000. And recent numbers published by Statistics Finland indicate that every second Finn has a personal computer. This certainly points to an unsatisfactory spread in the available information on the consignment of personal computers.

Figure A2.1 Number of personal computers per capita in comparison to Greece, Ireland, the Netherlands, Switzerland and the USA, 1988 – 2000



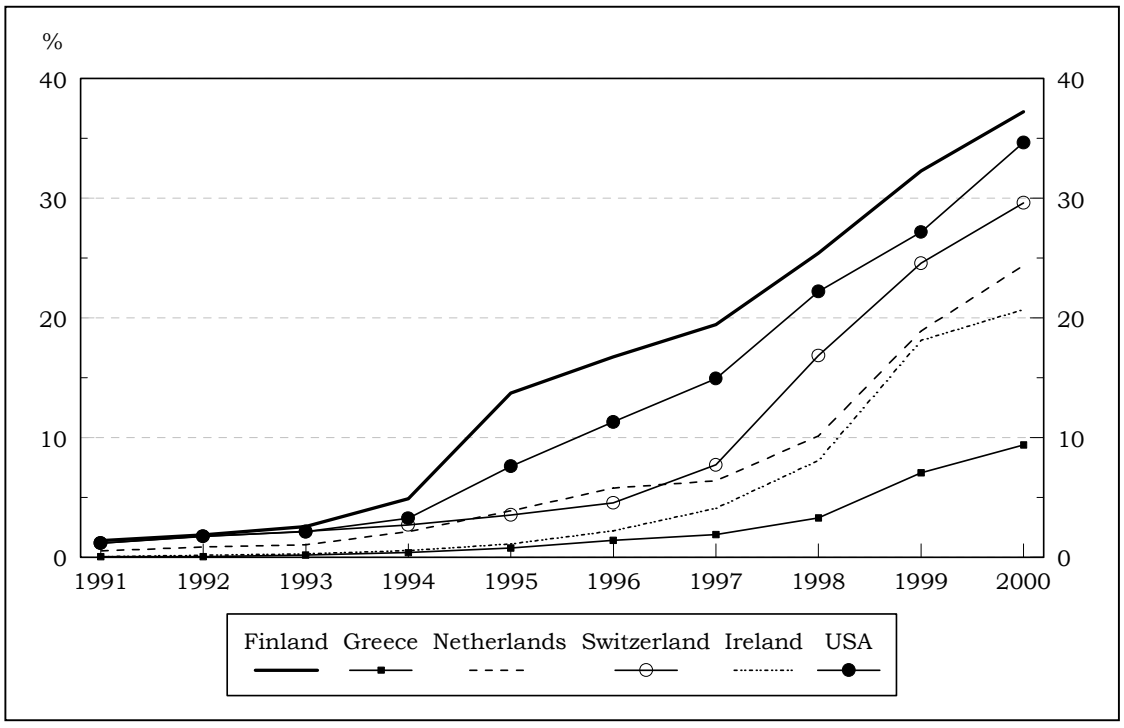
Source: Calculations based on The ITU World Telecommunication Indicators Database

Similar discrepancies between databases can be found for several of the other countries. Thus, the trend in Figure A2.1 goes from some 17% in 1993 to 50% in 2000 for Switzerland, while WITSA (2002) numbers point to a trend from close to 16% in 1993 to about 39% in 2000 (a drop from almost 43% in 1999). For Ireland, the WITSA (2002) numbers go from 7.5% in 1993 to some 22% in 2000 (down from over 23% in 1999), which are throughout substantially lower per capita numbers compared to those given in Figure A2.1 (13.5% in 1993 and 35.9% in 2000). The largest difference occurs for the USA where the share reported in the figure is 58.5% for 2000, but is as high as 72.2% according to WITSA (2002). For Greece and the Netherlands, in contrast, the two databases report very similar dispersions across the population.

Differences in reported year-specific shares show up in more or less outstanding differences in growth rates. The series displayed in Figure A2.1 imply that the number of personal computers per capita has increased at much the same average annual rate in the five European countries, but at a clearly slower rate in the USA. According to WITSA (2002, p. 48) statistics, on the other hand, Finland has experienced the slowest growth in the consignment of personal computers, while growth has been fastest in Greece, followed by Ireland, the Netherlands and Switzerland, with the USA falling between Ireland and the Netherlands.

The expansion in personal computers is also reflected in the development of the online population. According to WITSA (2002), in 2001 the percentage of Internet users in the population approached or exceeded 50% in four out of the six countries compared, with Greece and Ireland being the exceptions. Among these countries, Finland had the largest share in 1997 but was already surpassed by the USA in 2000 and in 2001 also by Switzerland. The per capita numbers displayed in Figure A2.2 tell a totally different story, however. Finland dominates with an estimated number of Internet users per capita amounting to over 37% in 2000. This share is also closer to the one reported by Statistics Finland (every third Finn being an Internet user).

Figure A2.2 Number of Internet users per capita in comparison to Greece, Ireland, the Netherlands, Switzerland and the USA, 1991 – 2000



Source: Calculations based on The ITU World Telecommunication Indicators Database

European Commission 2001 Innovation scoreboard numbers, finally, sign the Netherlands as the EU leader when it comes to home Internet access as a percentage of all households. The share in the Netherlands (55%) exceeds even that of the USA (47%). Among the EU member states, Finland comes fourth (44%), Ireland seventh (36%), and Greece last with a share of 12%. The EU average is 28%. It is emphasised, though, that better data and more sophisticated measures of Internet use are needed.

Equally important as absolute shares is the development over time in the number of Internet users. When it comes to Finland, the trend over the past few years seems to point to a slowdown in the growth of the online population, a trend that can also be seen in several other industrialised countries. Potential reasons for slower growth rates are technical difficulties and too high prices. This outcome is of particular interest with respect to teleworking, as one key justification put forth in Finland for increased use of teleworking has been to secure jobs also in remote regions of the country through efficient use of the opportunities offered by information technologies. Telework is discussed in more detail in Chapter 8.

3. TECHNOLOGY POLICY AND THE ICT MIRACLE

3.1 The emergence of Finnish technology policy[16]

The growth of technological and industrial R&D activities started in the early 1980s, partly due to the adoption of R&D enhancing policies. A key objective was to speed up the restructuring of Finnish industry, from low-tech to high-tech industries. Information technology (IT) was recognised as a key ingredient of this process. The *National Technology Agency (Tekes)* was established – nowadays, the main executor of technology policy – and the first national R&D programmes were launched with the aim of promoting collaboration among industry, universities and research institutes. A few years later, in 1987, the domain of the Science Council, an advisory body to the government founded in 1963, was enlarged to also include technology issues and, accordingly, its name was changed to the *Science and Technology Policy Council (STPC)*.

Compared to the 1970s, the investments in R&D undertaken by the business sector had doubled towards the end of the 1980s. Nevertheless, there was seen to be a need to notably increase national spending on R&D. The targets set by STPC were to increase the R&D share in the gross national product (GDP) to 2% by 1990, to 2.45% by 1995 and to 2.7% by 2000. The target for 2000 was later raised to 3%. For the period 2001 to 2004, the target is to retain the R&D share in GDP intact, that is, to increase R&D funding in line with the estimated growth of GDP (STPC 2000).

When the economic boom of the late 1980s suddenly turned into the deepest economic crises of the Finnish economy since the 1930s, it was realised that the economy had to be diversified away from the traditional pillars of the forest and metals and engineering industries towards new high-tech industries, and IT in particular. Obviously, another major driving force was the coming EU membership. As a consequence, industrial policy underwent a fundamental revision and several supporting key policy actions were set into force: a new competition policy, privatisation of government-owned companies and liberalisation of markets. The role of the technology policy was further strengthened and, at the same time, the focus shifted from "science-push" to "industry-pull" strategies. A growing number of industry- and problem-oriented technology programmes were introduced with the emphasis on fostering vertical collaboration.[17] In addition, actions were taken to improve firm- and business-related conditions through changes in the regulatory environment and the institutional setting, including labour market institutions. Technology policy had shifted from intervention to facilitation – to creating favourable framework conditions, and had become one of the main ingredients of Finnish industrial policy.

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[16] This section as well as the next one (3.2) rely heavily on Romanainen (2001). Other main sources are European Trend Chart on Innovation – Country Report: Finland (2001), Paija (2001a) and Ylä-Anttila (2002).

[17] It may be noted in this context that a recent study of network relations in the Finnish ICT cluster shows that vertical relationships play a key role in innovation, firm upgrading and value added creation (Paija 2001b). Evidently this is largely due to the programmes being demand-oriented, that is, planned with the needs of companies in mind and implemented in collaboration with companies.

During the 1990s, increasing attention was also paid to the social dimension of the technology policy, one aim being to develop sectoral research relevant to social development in order to find new solutions to social problems (STPC 1996). The emergence of this dimension was rationalised by the rapid and profound changes in industrial and economic structures that followed the economic recession in the early 1990s and were driven by both national and global challenges. Moreover, since the restructuring processes of the economy will inevitably continue and may even intensify further, the social dimension can be expected to demand considerable attention also in the future.

The Science and Technology Policy Council lays the basis for the science and technology policy to be pursued in the coming years. In its triennial key policy document, *Review of science and technology policy*, the Council discusses main policy challenges, sets priorities and makes recommendations about, *inter alia*, the allocation of public funding of R&D, as well as of other resources. The actual implementation of the Council's recommendations is the responsibility of the ministries and the various agencies.

The strong influence of the Council on industrial policy design originates in it being chaired by the Prime Minister and in it having a broad representation of key stakeholders representing not only government and academia, but also industry and employers' and employees' organisations. The government appoints the Council for a three-year term. Albeit institutionalised in the form of a council, the interactions between these stakeholders are characterised by intensive and informal communication. Equally important, the role of each actor is clearly defined, and they have a common view on the policy objectives and tools of the national industrial strategy to be pursued over the coming years. This institutionalised dialogue, which is evidently not very common internationally, also adds to the understanding of the interplay between technology policy and labour market flexibility actions underlying the economic success of the Finnish economy since the mid 90s.

3.2 NIS and cluster thinking drives technology policy

Finnish technology policy thinking has, ever since the early 1990s, been strongly influenced by the national innovation system (NIS) approach[18]; that is, by the idea of the complex linkages and interactions between technology, science and economy being the engine of social change and economic growth. Other major concepts that were introduced into the technology policy debate at much the same time were competitiveness and networking, grasped by means of the cluster approach.[19] With the adoption of the *National industrial strategy* of 1993, traditional industrial policy was gradually replaced by technology, education and competition policies.[20]

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[18] The national innovation system concept was introduced into Finland's science and technology policy in 1990, through the Council's review of that year (STPC 1990). It is defined in STPC (2000) in the following way: "…is a domain for interaction in the production and utilisation of knowledge and know-how built on cooperation between all producers and utilisers of new knowledge" (p. 11). For more information on the national innovation system, see e.g. Schienstock & Hämäläinen (2001).

[19] A cluster can be defined as "an industrial agglomeration of producers, customers and competitors that promotes efficiency, increases specialization and is a source of competitive advantage" (Ylä-Anttila 2002). Cluster-based policies with reference to Finland are also discussed in Rouvinen & Ylä-Anttila (1999).

[20] For more information on the adoption and implementation of cluster-based industrial policies, see Pietarinen & Ranki (1993).

The adoption of NIS thinking shifted the focus in Finnish technology policy towards the innovation process and, as indicated below, more recently also to the environment in which innovations are born and commercialised. This innovation-centred approach requires policy actions to acknowledge a number of key issues through which innovations can be encouraged and facilitated. Among these are the knowledge and skills base; technology accumulation, transfer and diffusion; inter-organisational co-operation; commercial utilisation; and the business environment. Apart from improving the global competitiveness of national companies, such conditions providing policies can also help make the country an attractive location for foreign companies.

The implementation of the cluster approach in Finnish technology policy was seen to provide an important complementary view to the existing policy basis founded on "innovation systems thinking".[21] Both approaches depart from whole systems and attempt to identify key actors, framework structures and conditions, as well as interactions and their relation to outcomes. Whereas in the NIS approach these outcomes are measured indirectly as competitiveness, they are in the cluster approach measured directly in economic terms. Other notable differences between the two approaches are that clusters are implemented not at the national level but on a smaller scale, and that cluster analyses generally overlook flows of knowledge and skills.

A recent outcome of the introduction of cluster thinking are the so-called inter-ministerial cluster-based programmes that were introduced in the *STPC Review of 1996* and that came to constitute a major new concept of technology policy in the late 1990s.[22] The novelty of these programmes compared to the already implemented industrial cluster-based approach was to join and combine the efforts of all stakeholders in an attempt to strengthen the competitiveness of the whole cluster. Apart from universities, research institutes and companies, these stakeholders also include sectoral government research laboratories and main users. The second generation of inter-ministerial cluster-based programmes will be launched in the near future.

The *STPC Review of 1996* also integrated a third key concept into the national innovation system – the knowledge-based society. This change shifted the emphasis of Finland's economic policy to globalisation, innovations and productivity growth, which were regarded as requiring increased knowledge and expertise through R&D, education and training.

The strong integration of NIS, cluster and knowledge-based society thinking into Finnish technology policy-making is also evident from the five policy challenges that were identified by the STPC in its most recent review (STPC 2000):

- How to enable growth of the ICT cluster in Finland? Here the main challenge is to secure the match between the demand for and the supply of skilled labour.

- How to ensure innovation and growth in social, cultural, as well as other sectors of the economy? Here the challenge is to transform the whole society into a knowledge economy.

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[21] The adaptation of the cluster approach in Finnish technology policy and its relation to policy-making are analysed in detail by Jääskeläinen (2001).

[22] The government's additional appropriation in 1997 – 2000 based on industrial clusters amounted to a total of 550 mill. euros.

- How to identify potential clusters and how to enable their growth? Here the challenge is to identify clusters which can potentially become strong and fast growing. Otherwise, there is the risk of the economy of being too dependent on the ICT cluster.

- How to enhance technology transfer and diffusion to enable widespread use and benefits of new technologies throughout society? Here the challenge is to ensure that all organisations, regardless of location and capability, can utilise the high-quality innovation services that the innovation system provides.

- How to strengthen the science base? Here the challenge is the funding situation of Finnish universities.

This outline of Finnish technology policy dating from 2000 also reflects the particular challenges that the adopted NIS and cluster approaches themselves are inevitably facing in the coming years. A major part of these challenges arises from the continuous restructuring of industries and the ongoing globalisation of both companies and value chains. As discussed by Romanainen (2001), this development makes it increasingly difficult to predefine clear borders of systems to allow analysis of their contents. He, therefore, suggests a solution whereby the systemic approaches of NIS and clusters are complemented with "analysing and thinking in terms of environments", which basically means that only the core needs to be defined while the analysis is focused on the environment surrounding it.

Indeed, the current Finnish technology policy has already extended its innovation systems approach to the complementary concept of innovation environment in an attempt to fuel the discussion with perspectives that originate not only from the innovation system, but also from innovation as such. Hence, the strong influence of innovation thinking could well justify the use of the term "innovation policy" instead of "technology policy".

3.3 The ICT cluster[23]

As was evident from the above policy challenges, as identified by the STPC, the ICT cluster and its growth conditions are of major concern in the Finnish technology policy. The ICT cluster in Finland relies on a core of industries engaged in the manufacture of telecommunications – particularly mobile – equipment and in telecommunications operation and services. Among the supporting industries is a highly specialised electronics industry. The associated services include the venture capital market, which has evolved to become a notable source of funding for ICT companies. A major contribution of the related industries, finally, is the digitalisation of content, the success of which will decisively affect the future demand for telecommunications infrastructure.

The 1990s witnessed a substantial strengthening in the economic relevance of the ICT cluster, a trend that was strongly influenced by successful implementation of the policy actions supporting the evolution of the national innovation system. Towards the end of the decade, the share of the ICT cluster in GDP amounted to almost 7% (in 1999). This outstanding performance is mainly attributable to the development of ICT manufacturing, the value added of which has grown at an average annual rate of 35%.

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[23] This sub-chapter builds on the comprehensive analysis of the Finnish ICT cluster undertaken by Paija (2001a, 2001b).

The share of the ICT cluster in total national employment is much more moderate, or some 4% in 1999. The employment potential of the cluster, however, is clearly higher but has not been fully realised because of a continuous shortage of skilled labour.[24] Nokia employed nearly 30% of the cluster's labour force. If adding a cautious quantification of the indirect employment effects of Nokia – through sub-contractors – its share is likely to be one-half, at least.[25]

Nokia also dominates the ICT cluster in other respects. Its domestic sales accounted in 1998 for almost one-half of the total cluster turnover, and for two-thirds of cluster exports. Most (some 60% in 1998) of the ICT cluster production is exported, with the export share being even larger for ICT manufacturing, that is, equipment. Towards the end of the 1990s, ICT product exports covered some 20% of total exports, compared to only 5% in 1990. These numbers reflect the strong position of Finland among the providers of ICT.

Apart from advantageous factor conditions, like favourable capital market developments, the ICT cluster has also benefited from fruitful demand conditions, not least from the alleged "technology-oriented" character of the Finnish population. The enthusiasm with which Finns adopted the mobile phone contributed strongly to the success of Nokia. Today, however, with the explosive expansion of Nokia, only a few per cent of the company's total revenue come from the Finnish market.

The future prospects and growth potential of the ICT cluster depend on three challenges, at least. First, and as also emphasised by the STPC, one challenge is to provide the ICT companies with a sufficient supply of skilled labour. And a recent evaluation report (Prihti *et al*. 2000) emphasises, more generally albeit with strong reference to the ICT industry, the need to develop the future competencies of the Finnish workforce. For these purposes, the ICT industry association and the public sector have jointly outlined the future needs for skilled labour in the ICT industry. Previous to this, the Ministry of Education initiated a programme, implemented in 1998 – 2002, to expand education in the information industry fields. One of the goals is to increase the number of academic degrees in these fields by one-third during 1999 – 2006.

Second, in addition to telecommunications technology, the digital content industry also needs to be developed. There is, in other words, a need to obtain a better balance within the ICT cluster between technology-oriented and market-oriented activities. Also the aforementioned evaluation report stresses the need to focus more strongly on a customer-driven innovation policy. This challenge ranks high in the Finnish technology policy, which is also reflected in the *Content Finland Programme* that the government initiated in 1999. The main task of this inter-ministerial agenda, which extends from 2000 to 2003, is to improve the preconditions for Finland to become a leader also in the provision of digital content industrial products.

Finally, the ICT cluster still relies heavily on the cluster companies themselves. This reveals an obvious need to link the ICT companies more strongly to the rest of the economy. Moreover, this challenge relates to two aspects underlined in the previously mentioned evaluation report (Prihti *et al.* 2000): first, to integrate the old and new industries so as to preserve conventional jobs and create new ones, and second, to improve further the cluster approach, especially through the creation of entirely new linkages. One already adopted

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[24] For a detailed analysis of skill shortages in Finnish manufacturing, see Pelkonen (2002).

[25] Estimations of the indirect employment effects of Nokia are presented in Ali-Yrkkö *et al.* (2000) and Ali-Yrkkö (2001). Nokia's share of industrial employment is about 5% and of total employment only 1%. If adding the employment effects of suppliers, Nokia's share of total employment rises to almost 2.5%.

solution is to supplement the flow of ICT into other industries with a flow in the opposite direction, that is, with other industries providing, to an increasing extent, new technologies to ICT companies. Moreover, one of the most significant changes within the national technology policy in recent years has been to create new organisations associated with technology transfer, diffusion and commercialisation.

3.4 Major trends in public R&D funding

It is commonly argued that the successful development of the Finnish ICT cluster builds on two historical circumstances. First, the telephone network operation was never monopolised by the state, as was the case in most other countries. Second, unlike many foreign markets the Finnish telecommunications equipment market allowed competition.[26] Swift deregulation and full liberalisation of the telecommunications market were finalised as early as 1994. Paija (2001a) describes the regulatory approach adopted in the Finnish telecommunications policy with three illustrative terms – pro-competitive policies, light-handed regulation and technology-neutral competition.

Moreover, the evolution of the Finnish economy has, over the past few decades, involved several fundamental changes that have contributed to strengthening the competitive advantage of the ICT cluster. Further pre-conditions for rapid growth have been laid down by government policy actions. In the 2001 competitiveness rankings of WEF, successful public support of ICT use is put forth as one main factor behind the outstanding competitiveness performance of the Finnish economy over the past few years.

The extraordinary increase in R&D expenditure towards the end of the decade was the outcome of a joint commitment of the private sector and the government in 1996 to increase R&D expenditure to 2.9% of GDP by 1999 (STPC 1996). As noted earlier, this goal was, in effect, already exceeded in 1998, and new, more ambitious goals were set. A substantial portion of the increase in public R&D funding came from the sell-off of state-owned companies. These funds were mainly allocated to technology, targeted basic research and education. In relation to this re-orientation in Finnish technology policies, also a new Subsidies Act concerning the general conditions for the provision of industrial subsidies was passed in 1997. With this new provision, the whole support system was also placed under continuous evaluation.

The government's strategy of raising the R&D intensity level of the Finnish economy close to that of the world leaders has, in other words, been highly successful. As a percentage of GDP, the share of public funding of R&D remained at the 0.8 – 0.9% level through most of the 1990s (compared to less than 0.7% in the 1980s). In 1998 and 1999, it rose, however, to around 1% due to the notable increases in government R&D funding that occurred in those years, and is estimated to be 1.04% of GDP in 2001 – 2004.

The target set for the share of public R&D funding to reach 40% has not been realised, though (Figure 3.1). At the turn of the millennium, public funds covered about one-forth of total R&D expenditures, which falls below the EU average of almost 35% and the OECD average of some 30%. The reason for this is simple: despite a considerable increase in public R&D funding in absolute terms, its share in total R&D funding has lagged behind because of an exceptionally intense growth in private R&D funding. The lagging trend is fur-

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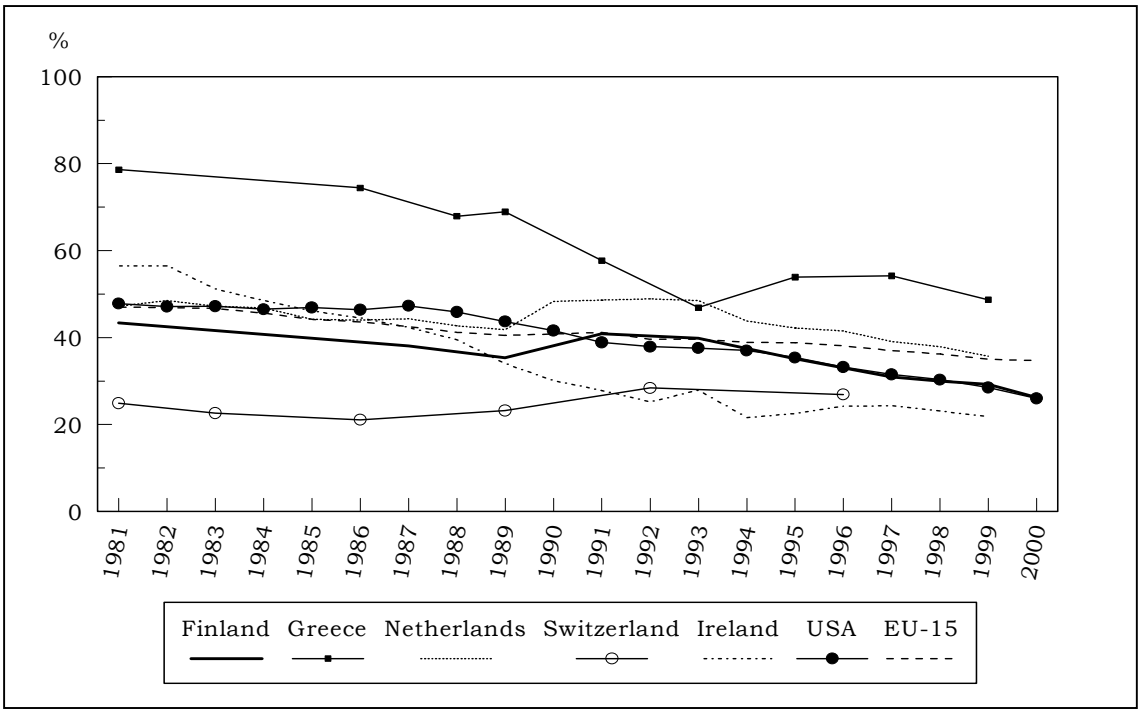
[26] For further information, see e.g. Paija (2001a), Turpeinen (1996) and Toivola (1992).

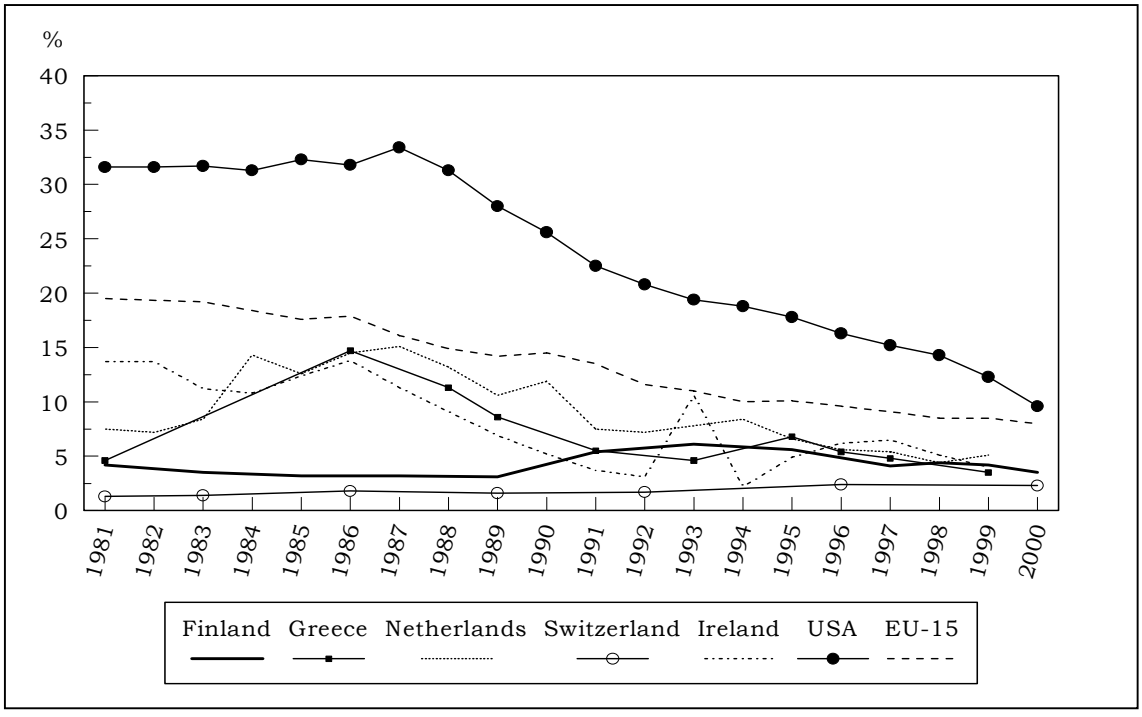
ther fuelled by the fact that the government's R&D input has remained unchanged in nominal terms over the past four years.

Figure 3.1 Public funding as a percentage of total R&D expenditure compared to selected countries and economic areas, 1981 – 2000



Source: OECD STI

Figure 3.2 Public funding as a percentage of business R&D expenditure compared to selected countries and economic areas, 1981 – 2000



Source: OECD STI

This slowdown is evident also from Figure 3.2, giving the share of public funding in business R&D funding. Equally important, the figure reveals that public R&D funding of business R&D input is far less important in Finland than in the EU on average (which is very close to the OECD average).[27] If also accounting for the tax reductions for R&D activities in use in other countries, Finland's situation from an international perspective weakens further. The relative shares of the other small European economies drawn into the figure are close to that of Finland, but in absolute terms the differences are huge.

3.5 Conclusions

In conclusion, the business sector has a much more outstanding role in the financing of R&D investment in Finland compared to most other countries, as was shown also in Section 2.3 above. Finnish firms have also been willing to invest their own money into rather risky projects, which can undoubtedly be seen as one major factor having contributed to the ICT success of the Finnish economy.

Public R&D funding has complemented rather than substituted business R&D funding, which is also the conclusion drawn in the evaluation report on the government's additional appropriation programme for research implemented in 1997 to 1999 (Prihti *et al.* 2000).[28] The evaluation report further points to public R&D policies also having improved corporate profitability and the know-how level of the personnel, fuelled productivity growth, intensified the adoption of new technologies through diffusion and spill-over mechanisms, and affected employment positively. All these effects have added to the competitiveness of the Finnish economy. It is, therefore, proposed in the report that policy-makers should continue to set ambitious aims for research funding to safeguard Finland's economic success and prosperity.

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[27] If excluding Nokia, the share of public funding would in Finland be slightly higher, or close to 6% for 2000 (Ali-Yrkkö and Hermans 2002).

[28] For research results, see Asplund (2000).

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4. LABOUR MARKET LEGISLATION

A distinctive feature of Finnish industrial relations is the strong influence of the social partners in legislative matters. This tripartite co-operation has occasionally been criticised, but has also been noted to guarantee labour laws that are as good as possible from the standpoint of both employers and employees. This chapter outlines the major cornerstones of Finnish labour market legislation while simultaneously pointing to some recent, more specific reforms.

4.1 Employment contracts legislation

The first Employment Contracts Act came into force in 1922 to replace a collection of individual acts on the role of employees. This Act served well until the post World War II years when Finland started to become increasingly unionised. Collective agreements at this time were often made at a sectoral level, creating a host of acts and exceptions to labour market legislation, and applying to a varying number of employees. This caused Finnish labour market regulation to become significantly more complex than before the War.

Simultaneously, legislation became a subject of study at Finnish universities, giving a new angle from which to observe employment contract legislation. The focus moved to seeing employment as a contract between employer and employee. Finally, developments in social security in the 1960s made it necessary to update legislation, which eventually led to the 1970 Employment Contracts Act. This Act collated, clarified and summarised the changes made over the past decades.

After 1970, the changes continued unabated until in the mid 1990s a new legislative overhaul was sorely needed to clarify the situation, especially in light of Finland's EU membership from 1995. A tripartite committee was set up in 1995 with the task of reforming the 1970 Act. The committee completed its report in February 2000. However, a dispute concerning the new provisions on the "general validity" of collective agreements delayed the adoption of the new Act, which came into force in June 2001.[29]

The Employment Contracts Act is a cornerstone of Finnish employment law. It sets the "constitution for working life" by governing fundamental employment related issues such as drawing up contracts of employment; the terms and conditions of employment; the rights and duties of employers and employees; the grounds for, and the procedure to be observed on, termination of employment; and rules on the application of collective agreements. Although it reformed the legislation in its entirety, the new Act follows its two predecessors in the sense that it does not strive primarily to change issues but rather to clarify the changes already in place in the Finnish labour market. The new Act aims, in particular, to improve the position of fixed-term and part-time employees, to clarify provisions concerning employment security, and to define more precisely the system of "general validity" of collective agreements.

The overarching principle is to protect the weaker contractual partner – the employee. In the new Act, this principle is extended to apply to all work done as gainful employment

[29] For a comprehensive discussion of the new Act, see e.g. Kahri *et al.* (2001), Koskinen & Mikkola (2001) and the EIRO web site at http://www.eiro.eurofound.eu.int/2001/07/feature/ FI0107193F.html.

(thus excluding specific groups such as military personnel, voluntary workers and convicts) with the aim of narrowing the gap between traditional open-ended, full-time employment contracts and fixed-term or part-time ones. In particular, the new legislation forbids the use of worse terms for the employment contracts of fixed-term and part-time employees, as well as unequal treatment of employees in other respects, unless the employer can justify such exceptions on grounds connected with the employee's duties or position. The new Act further provides for employment contract benefits for employees who have a succession of fixed-term contracts with the same employer. Moreover, whenever employers need more personnel they are obliged, in the first instance, to take into account their part-time and fixed-term employees. In other words, the new Act implemented most of the EU Council Directive on part-time and fixed-term contracts (1999/70/EC).

Employment contracts that are valid for an indefinite period may be terminated by giving notice to the other contracting party. For the employer, the minimum notice period varies from 14 days to six months depending on the length of the employment relationship.[30] Compared to the 1970 Employment Contracts Act, the notice period has been cut in the case of short-term contracts and lengthened for long-term contracts. Previously, a notice period of six months applied only to employment relationships that had continued for 15 years, a limit that was lowered to 12 years in the new Act. For an employee, the minimum notice period is 14 days if the employment relationship has continued for no more than five years, and one month for longer employment relationships.

The new Act clarifies and is more specific on the grounds for cancellation and dissolution of an employment relationship. In particular, there are now separate provisions on when reasons related to the employee, on the one hand, and to changes in operational preconditions of the employer, on the other, may be used for cancelling the employment contract, possibly even sooner than stated by the notice period. The guiding principle thereby is that the grounds for termination need to be factual and "very weighty" in line with the established legal practice.

Groundless termination of the employment relationship by the employer means the employer is obliged to pay compensation and possibly face sanctions as well. The comprehensive compensation system introduced in the new Act stipulates the compensation normally awarded to the employee to be from a minimum of three months' pay to a maximum of 24 months' pay. This upper limit can be extended up to a maximum of 30 months in the case of unjustifiable termination of a shop steward or delegate's[31] employment contract. There are, however, also noteworthy exceptions to this minimum compensation rule. For instance, it does not apply when the employment contract is cancelled only on production-linked or economic grounds.

In case the employer has a financial or production-related reason for terminating the employment contract, the Act provides for an alternative to termination in the form of layoffs.

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[30] A notable exception to this rule relates to collective dismissals in order to avoid bankruptcy, in which case the maximum notice period is reduced to two months regardless of the length of the employment relationship. The 14-day notice period, however, applies even in the case of an employer's bankruptcy – in such a case the bankruptcy estate is held liable. Payment of employees' claims arising from an employment relationship in the event of the employer's insolvency is ensured and regulated in a separate law, the Payment Security Act of 1998.

[31] According to the new Act, employees have the right to choose a "delegate" when they are not represented by a shop steward chosen on the basis of the relevant collective agreement. This delegate is then subsidiary to the shop steward referred to in the collective agreement.

The employer is also entitled to lay off an employee if the work, or the employer's potential for offering work, has diminished temporarily (estimated to last a maximum of 90 days) and the employer cannot reasonably provide the employee with other suitable work or relevant training. The employee may be laid off either for a fixed period or indefinitely by interrupting the work completely, or by reducing the employee's regular working hours prescribed by law or contract to the extent necessary in view of the grounds for laying off the employee. Apart from the work, the employee's remuneration is also temporarily interrupted, while the employment relationship continues in other respects. The minimum notice period is 14 days before the layoff begins. Less strict preconditions concerning layoff grounds and notice apply if the layoff is based on an agreement between the employer and employee and not on a decision or initiative made by the employer alone.

As already noted, it was a dispute over the definition of a collective agreement's "general validity" that delayed the final adoption of the new Employment Contracts Act. Since a collective agreement with "general validity" is deemed to be binding on not just members of the signatory employers' organisations, but on all employers in the sector, the system needed to be more precisely defined. The overall rule, however, still is that the generally valid collective agreement for a sector determines the minimum terms to be applied by the employer in drawing up employment contracts. Whether or not the national collective agreement is representative in the sector concerned to the extent that it can be considered generally valid is a task to be confirmed by a committee set up by the Council of State. Decisions of the committee can be appealed in the Labour Court, whose ruling is final. The confirmation of the general validity of collective agreements is, by now, regulated by a separate Act – Act on Confirmation of the General Applicability of Collective Agreements, which came into force in 2001.[32] The difficulties in interpreting the concept of general validity are, nevertheless, expected to continue, especially in relation to outsourcing, subcontracting and the persistent adoption and implementation of new company arrangements.

4.2 Working time legislation

The Working Hours Act

The new Working Hours Act came into force in 1996, and it is applied to employees, as well as civil servants and officeholders. The 1996 Act replaced its 1946 predecessor, as well as four later additions: the bakery act (1961), the janitorial working time act (1970), the working time act for shops and offices (1978), and the working time act for agriculture (1989). The Working Hours Act governs basic issues related to the length or time of the working day or week, while simultaneously providing for the possibility of deviating from its working hours regulations through collective agreements, or at the workplace level by the use of the Act's local-level agreement model. Working time related issues such as annual holidays, study leaves and job alternation leaves are regulated by separate acts.

The Working Hours Act lays down the maximum number of regular working hours at eight hours a day or 40 hours a week. The regular weekly working hours can also be arranged in such a way that the average is 40 hours over a period of no more than 52 weeks. In period-

[32] See further Section 5.5 (Collective bargaining).

based work, the regular working hours can be arranged such that they do not exceed 80 hours during a two-week period or 120 hours during a three-week period. During those hours, the employee must be on hand for the employer.

The employer and the employee can agree on lengthening the regular working hours in the form of overtime. The maximum amount of overtime during a four-month period is 138 hours, though 250 hours must not be exceeded in a calendar year. Additional overtime can be agreed upon up to a maximum of 80 hours in a calendar, but also then the aforementioned 138 hours' rule must be respected.

If the number of normal working hours per week is below the legal maximum, which is generally the case[33], then at the employer's initiative and with the employee's assent it is possible to do additional hours of work, at no less than the same pay as the regular hours. It is also possible to agree on additional hours in the employment contract, but even then the employee may refuse the additional hours by presenting a good reason.

Hours beyond the legal maximum of normal working hours are defined as overtime. Working overtime also requires the employee's assent, and has a legal cap of 138 hours over four months, or 250 hours per calendar year, whichever is less.[34] Overtime is normally compensated separately by higher pay, corresponding to +50% for hours worked in excess of the weekly quota or for the first two hours in excess of the regular daily working hours, and increasing to +100% for any additional hours. Overtime compensation may also be exchanged for increased compensation adjusted free time.

Any work lasting for at least six hours must include a daily rest period of sixty minutes, which can by agreement between the employer and employee be reduced to 30 minutes. The rest period may not be placed at the very beginning or end of the daily work period. Additionally, the employee is entitled to a minimum rest period of 11 hours per day or 35 hours per week away from work.

Night work is defined as work done between 23:00 and 06:00. It can legally be requested in work performed on a cyclical basis, in work done in three or more shifts (or up to 01:00 in work done in two shifts), or when the nature of the task itself requires nocturnal hours (e.g. newspaper work, public sanitation or security). There is also a limit of seven night shifts in a row, where night shift refers to a work shift with at least three hours of work done between 23:00 and 06:00.

The weekly rest should, if feasible, include Sunday. Sunday work must be agreed on either separately or in the employment contract, and must be compensated at no less than double pay rates. Unless the employee specifically agrees to it, Sunday work may only be required of the employee if the nature of the work is such that it must be done regularly also on Sundays.

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[33] Usually the working time agreed on in collective agreements is shorter than the maximum statutory regular working hours. A commonly used maximum is 7,5 hours a day and 37,5 hours a week. If the normal working time included in the collective agreement is identical to the one set out in the Working Hours Act, then rules are included in the collective agreement on shortening of the annual working time by use of so-called *pekkas*-days, which stand for payable free-time for the employee.

[34] Trade unions may agree to additional overtime of up to 80 hours per year, but the legal maximum of 138 hours per four months must, nevertheless, be followed.

Holidays and leave

Annual holidays: The Annual Holidays Act dates back to 1973, but has over the years been amended by several acts. Annual holidays are earned according to the number of working months and years of service. The main rule laid down in the Act is that an employee is entitled to two weekdays of holiday at full pay for each full holiday credit month. For an employee whose employment has lasted for at least one year without interruption, the corresponding entitlement is two and a half weekdays for each full holiday credit month. A full holiday credit month is defined as a calendar month during which the employee has worked for the employer on at least 14 days or for at least 35 hours. The usual length of holiday leave in full-time employment is five weeks per year.

Maternity leave is granted, and a benefit paid, for 105 days. Parental leave, entitling to an earnings-related allowance, may be taken by either parent for up to 158 working days. It is, however, still quite unusual for fathers to utilise this opportunity; half of all fathers exercise the right to take paternity leave for a period of three weeks, at most. Either of the parents is entitled to stay at home to care for the child for the first three years, while retaining the right to return to their previous employment. During this time, the parent receives an allowance paid by the state, through the Social Insurance Institution (KELA). Alternatively, this time off can be taken in the form of a partial care leave with the working day reduced to six hours. In this case, the leave can continue until the child has finished the first autumn term of primary school, which means the end of that calendar year when the child starts compulsory education (typically at the age of seven).[35]

Study leave: The Study Leave Act came into force in 1979, but has later been amended by several acts. The purpose of the Act is to improve the opportunities for training and study available to the working population. In other words, the aim is to design a system of study leave that enables employees to seek additional education and training in a flexible manner, typically without pay, but also without interruption in their employment relationship. "Study leave" is defined as any period for which an employer has released an employee from the performance of the duties pertaining to the person's employment, to enable him or her to pursue training or study. Thus, the period of study leave does not include, for instance, statutory training prescribed for the employee's occupation, unless the employee has agreed to this in writing. The right to take unpaid study leave, while retaining the right to return to work, applies to those whose full-time employment relationship with the same employer has lasted for at least one year. During a period of five years in the same employer's service, the employee is entitled to up to two years of study leave, either continuously or in multiple sequences. Where the full-time employment relationship with the same employer has lasted at least three months, the right to study leave is restricted to a total of five days. A study leave may be granted for studies in a programme subject to public supervision undertaken at home or abroad, as well as for trade union studies, as separately agreed in a collective agreement concluded between national labour market organisations.

[35] For a comprehensive review, see e.g. Stockholm Conference – national report of Finland (1999).

Job alternation leave or sabbatical switch leave: The Act on the Job Alternation Leave Experiment came into force on January 1, 1996, with the aim of cutting unemployment and helping employees "cope" at work.[36] Job alternation leave refers to a system under which an employee is given fixed-term leave from the duties of his or her employment relationship in accordance with a job alternation agreement made with the employer, on a voluntary basis. The employer engages to hire, for the same period, an unemployed jobseeker registered with the employment office. The Act applies to full-time employees[37] in the private and public sectors having worked for and been employed by the same employer continuously for at least one year immediately before the job alternation leave begins. The duration of a job alternation leave is a minimum of 90 calendar days continuously, and a maximum of 359 calendar days altogether. The employee is entitled to job alternation compensation for the period of leave while the replacement earns wages. The full amount of this leave compensation is 70% of the daily unemployment allowance to which the person would be entitled if unemployed. In addition, the employee has right to a partial vocational training grant. This Act remained in force until the end of 2002.

In due time before the end of this experimental job alternation leave scheme, a tripartite working group agreed on the continuation of it for another five years. This effort resulted in the Act on Job Alternation Leave, which entered into force on January 1, 2003 for a five-year period, that is, until the end of 2007. This new Act tightened several of the preconditions for taking such sabbatical leave. Thus, the new Act introduced a requirement of a total minimum of 10 years' prior employment for entitlement to leave; employment for at least five more years after the previous leave to be entitled to take a subsequent period of leave; the temporary substitute employee being preferably a young person, a long-term unemployed, or a person with recent university or professional education. In addition the compensation for longer-serving employees (employment for at least 25 years) was raised to 80% of the unemployment allowance, but was kept unchanged at 70% for all other employees.

So far the job alternation leave scheme has been most frequently used in female-dominated parts of the public sector, such as health care, but also in other parts of the public sector, where employees have faced great difficulty in "coping" with work. The scheme is also seen to have offered unemployed people a "gate-of-entry" into working life.[38]

4.3 Pension legislation

The Finnish statutory earnings-related pension scheme comprises a broad number of pension laws governing the statutory pension provision based on employment or self-

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[36] In this context it may also be mentioned that the Finnish government launched an action programme in November 1999 to promote employees' "ability to cope" at work, lasting for the duration of the government's term of office. Other working life programmes introduced for promoting coping abilities at work are the national workplace development programme and the five-year national programme for older workers. For more details, see the web sites of the Ministry of Labour and the Ministry of Social Affairs and Health, as well as e.g. the EIRO web site at http://www.eiro.eurofound.eu.int/1999/11/feature/FI9911127F.html

[37] Including employees whose working hours are more than 75% of the working hours of full-time employees in the field.

[38] For details on the use, usefulness and experiences from the job alternation leave experiment, see e.g. http://www.eiro.eurofound.eu.int/1997/04/feature/FI9704110F.html

employment, and the administration handling the implementation of the scheme.[39] The statutory earnings-related pension scheme covers all gainfully employed persons. Although based on acts approved by Parliament, the earnings-related pensions simultaneously constitute an important part of the labour market and labour costs. As a consequence, earnings-related pension issues also often appear on the negotiation agenda of the labour market organisations.

The Employees' Pensions Act (TEL), introduced in 1962, is the principal earnings-related pension act. First, it is a framework act, on which the other earnings-related pension acts are modelled. Second, it is applied if no other earnings-related pension act can be applied. Indeed, it covers nearly half of all those insured for earnings-related pension benefits.

Apart from TEL, the statutory pension provision of the private sector is regulated by a number of laws that are applicable to specific groups in the labour market. The Temporary Employees' Pensions Act (LEL) is implemented in forestry and log floating, work on board vessels in domestic traffic, agriculture and gardening, civil engineering and housing construction and dock work. The Pension Act for Performing Artists and Certain Other Employee Groups (TaEL) applies to various occupational groups listed in the act, such as musicians, actors and journalists. The Self-Employed Persons' Pensions Act (YEL) applies to the self-employed, that is to those not working under an employment contract. The Farmers' Pensions Act (MYEL) covers farmers, fishermen and reindeer herders. The Seamen's Pensions Act (MEL), finally, applies to employees who perform the kind of work defined in the law, e.g. work on board a Finnish merchant vessel in international traffic.

The statutory earnings-related pensions of the private sector are administered by private pension institutions, which collect the pension contributions, manage the funds and pay the pensions. All private pension institutions operate according to common principles, and are jointly and severally liable for payment of pensions to the insured in case of insolvency of any of the institutions. The central body of the private-sector pension institutions is the Finnish Centre for Pensions, the activities of which are under the supervision of the Ministry of Social Affairs and Health, as well as the Insurance Supervision Authority.

The rules for the earnings-related pensions of the public sector are laid down in three laws. The State Employees' Pensions Act (VEL) applies to officials and employees of the state, with certain exceptions, and partly also to comprehensive and upper secondary school personnel. The Local Government Employees' Pensions Act (KVTEL) applies, in turn, to persons employed by the municipalities. The Evangelical-Lutheran Church Pensions Act (KiEL), finally, applies to persons employed by or in the service of the Church and its parishes, as well as to certain other groups as defined in the law. There is a separate administrative body for handling the pension provision related to each of these three laws.

Depending on the working history of the insured person, his or her earnings-related pension is based on employment under one or more pension acts. The latter situation is not inconvenient, since the pension benefits are the same under the different pensions acts.[40]

One major shortcoming that the current pension system is argued to suffer from is the fact that the effective pension age is on average just below 60 years[41], while the default maxi-

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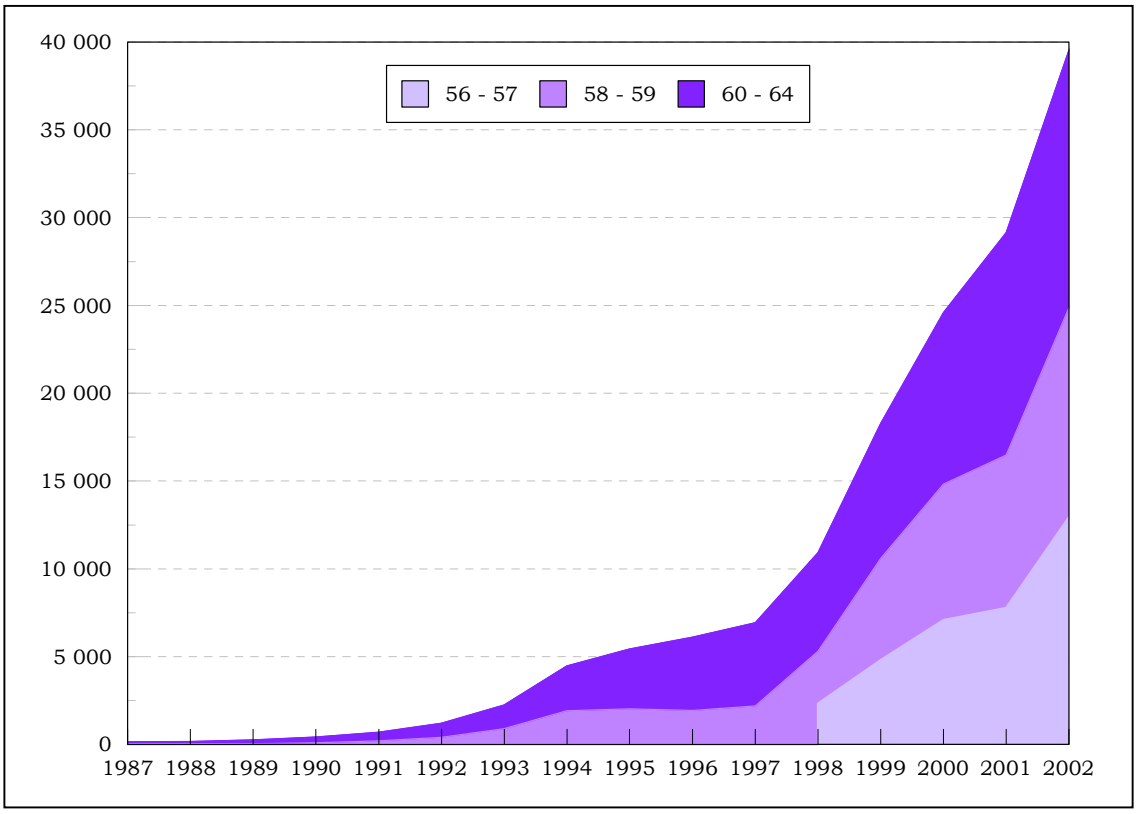
[39] See e.g. the web site of The Finnish Centre for Pensions at http://www.etk.fi/english

[40] For details on the current statutory earnings-related pensions, see e.g. the web site of the Finnish Centre for Pensions at http://www.etk.fi/english, and Huovinen & Piekkola (2002).

mum legal pension age is 65 years. This rather low effective retirement age is the result of the various early retirement arrangements in force. Apart from the early retirement option written into the statutory earnings-related pension system, these also include different modes of special retirement arrangements such as disability and unemployment pensions.[42] The past decade has seen several attempts to raise the average effective pension age; the age limit at which an employee is eligible to retire, at the earliest, was recently raised from 58 to 60 years, and the preconditions for being eligible for special early pensions have been tightened. Moreover, the Finnish statutory earnings-related pension system is currently subject to profound revision with the overarching aim of postponing the effective retirement age by two or three years.[43] Among the reforms suggested for achieving this goal are regulation of vocational rehabilitation by law, abolition of the individual early retirement pension, changing the prerequisites for the disability pension, transferring the unemployment pension to the income security for the unemployed, making the age limit for the old-age pension flexible up to 68 years-of-age, and changing the calculation rules for the pensionable wage. Most of the suggestions will be implemented from the beginning of 2005.

Figure 4.1 Number of part-time pensioners by age, 1987 – 2002



Source: The Finnish Centre for Pensions

[41] It may be noted that when the actual pension age is calculated in the same way as for other European countries, then it is on average 61,6 years. With this figure Finland ranks sixth among the EU countries, with Ireland taking the lead with an average actual retirement age of 63,1. Calculations presented by the Finnish Centre for Pensions http://www.etk.fi/english

[42] These special pensions are overlooked in this context. A brief presentation of them can be found e.g. at the web site of the Finnish Centre for Pensions at http://www.etk.fi/english

[43] For information on this work, see e.g. the web site of the Finnish Centre for Pensions at http://www.etk.fi/english

A tightening of the conditions has been considered necessary also in relation to the part-time retirement opportunity, introduced in 1986, due to a tremendous growth in popularity in the late 1990s. Its popularity was boosted further when the minimum age of part-time pensions without a medical cause was lowered from 58 to 56 years in 2000. Simultaneously the average age of part-time pensioners started to decrease (Figure 4.1). By the end of 2001, nearly 30,000 Finns were on part-time pension arrangements.

As a part of the ongoing total revision of the private-sector earnings-related pension scheme, the labour market organisations agreed in November 2001 to raise the age limit and cut the accrual rates of part-time pensions. While persons born in 1946 or earlier can take a part-time pension at the age of 56 also in the future, the age limit for those born in 1947 or later was raised to 58 years from the beginning of 2003. Hence, these younger age groups can take a part-time pension in 2005, at the earliest. Simultaneously the conditions for a part-time pension were maintained for those born in 1946 or earlier, whereas the accrual rate for a new pension was decreased for those younger than this. This reduction in the accrual rate also reduces the old-age pension granted after a part-time pension. As a consequence of this reform, the number of new part-time pensioners boomed, especially among those aged 56 – 57, and by the end of 2002, almost 40,000 persons were on part-time retirement.

Part-time retirement is an attractive option for both the employee and the employer.[44] Combining part-time work with part-time retirement increases flexibility while simultaneously enabling people to stay in working life for longer by working in a less strenuous manner, possibly also seeking additional education. Moreover, in contrast to full-time pensions, the part-time pension is paid entirely by the state, and it leaves the old-age pension that the person will receive when fully retired almost unaffected. The part-time pension, however, does not seem to be a successful arrangement in all contexts. Many part-time pensioners feel that they actually work a full week in three days, while having no possibilities to get paid for their overtime work. Difficulties in matching the working tasks with part-time work stand out as a major reason for the increasing number of part-time pensioners returning fully to working life (some 900 in 2001 and over 1,400 in 2002).

Finally, apart from the statutory earnings-related pension scheme there is a national pension scheme that covers all citizens.[45] The purpose of this scheme is to guarantee a basic income security for those who do not receive an earnings-related pension, or whose pension is small due to, for instance, breaks in the working history. The role of the national pension scheme has diminished considerably over the years because of improved earnings-related pension coverage and benefits, as well as tightened conditions for receiving a national pension.

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[44] The part-time retirement option is also available for entrepreneurs. For more information on the part-time retirement system, see e.g. http://www.etk.fi/english/parttimenotice.htm

[45] For more information, see the web site of The Social Insurance Institution of Finland, http://www.kela.fi/english

Literature of Chapter 4

Action programme launched to promote ability to cope at work. http://www.eiro.eurofound.eu.int/1999/11/feature/FI9911127F.html

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Huovinen, P. & H. Piekkola (2002), *The time is right? Early retirements and use of time by older Finns.* ETLA / MOL Labour Policy Studies #238, Helsinki.

Kahri, T. et al. (2001), *The new job contract law in practice*. Kauppakaari, Gummerus, Helsinki. (in Finnish)

Koskinen, S. & H. Mikkola (2001), *The New Work and Labour Law*. Sitra Reports series 13, Hakapaino, Helsinki.

Ministry of Labour; http://www.mol.fi

Ministry of Social Affairs and Health; http://www.stm.fi

New Employment Contracts Act in force. http://www.eiro.eurofound.eu.int/2001/07/feature/FI0107193F.html

Part-time pension under previous conditions for persons born in 1946 or earlier. http://www.et.fi/english/parttimenotice.htm

Sabbatical leave scheme gains in popularity. http://www.eiro.eurofound.eu.int/1997/04/feature/FI9704110F.html

Social Insurance Institution of Finland; http://www.kela.fi/english

Stockholm Conference – national report of Finland. Towards a Child-friendly Society, Conference of European Ministers responsible for Family Affairs, Stockholm 1999. Downloadable at http://www.social.coe.int/en/cohesion/fampol/stockholm/finland.htm

List of acts referred to in Chapter 4

Act on Confirmation of the General Applicability of Collective Agreements; http://www.finlex.fi/english/laws/index.php

Act on the Job Alternation Leave Experiment; http://www.finlex.fi/english/laws/index.php

Act on Job Alternation Leave; http://www.mol.fi/english/working/index.html

Annual Holidays Act; http://www.finlex.fi/english/laws/index.php

Employment Contracts Act; http://www.finlex.fi/english/laws/index.php

Pay Security Act; http://www.finlex.fi/english/laws/index.php

Pension Acts; see The Finnish Centre for Pensions; http://www.etk.fi/english

Study Leave Act; http://www.finlex.fi/english/laws/index.php

Working Hours Act; http://www.finlex.fi/english/laws/index.php

5. LABOUR MARKET ORGANISATIONS AND COLLECTIVE BARGAINING

This chapter provides a brief presentation of key agencies involved in labour market policies. It also outlines the major features of the Finnish collective bargaining system.

5.1 Ministry of Labour

The Ministry of Labour (MOL) is responsible for the pursued labour market policy and administers the policy through labour districts and employment offices. The mission of MOL is to promote the functionality of the labour market and its organisations, to improve employment, and to help immigrants settle down. MOL provides training, information, employment services and support, and is active in seeking various new ways to alleviate unemployment and labour market exclusion.

Employment training

MOL employment training consists of practical and vocational adult training. It is intended primarily for job seekers (90% of the time) or those in danger of losing their jobs. Applicants under 20 years-of-age are admitted only as exceptional cases. The trainees are chosen by MOL, with priority given to those deemed most likely to benefit from the training. It is free of charge for the participants, and does not prevent the trainees from receiving whatever unemployment benefit to which they are eligible.

Table 5.1 MOL employment training, 1985 – 2002

Year	Applicants for training courses	Monthly average of persons who			
		started training	completed training	interrupted training	are on training
1985	4.800	2.600	1.900	390	16.000
1986	4,700	2,500	2000	370	15,400
1987	4,800	2,600	2,100	410	15,900
1988	3,700	2,500	2,100	360	15,600
1989	3,800	2,500	2,000	350	15,600
1990	4,300	2,800	2,100	340	16,800
1991	8,000	4,000	3,000	350	17,300
1992	11,600	5,700	4,100	370	26,300
1993	12,100	5,300	4,900	350	27,200
1994	14,300	6,900	5,600	570	28,400
1995	16,100	7,300	5,300	590	33,900
1996	18,200	8,400	7,000	760	42,300
1997	20,500	9,300	8,100	870	46,800
1998	18,100	7,500	6,600	760	41,400
1999	17,600	7,300	6,000	850	38,100
2000	17,000	6,400	5,500	820	30,900
2001	14,100	5,600	4,600	760	26,100
2002	14,300	6,000	4,300	720	26,300

Source: *Finnish Labour Review* 1/2003

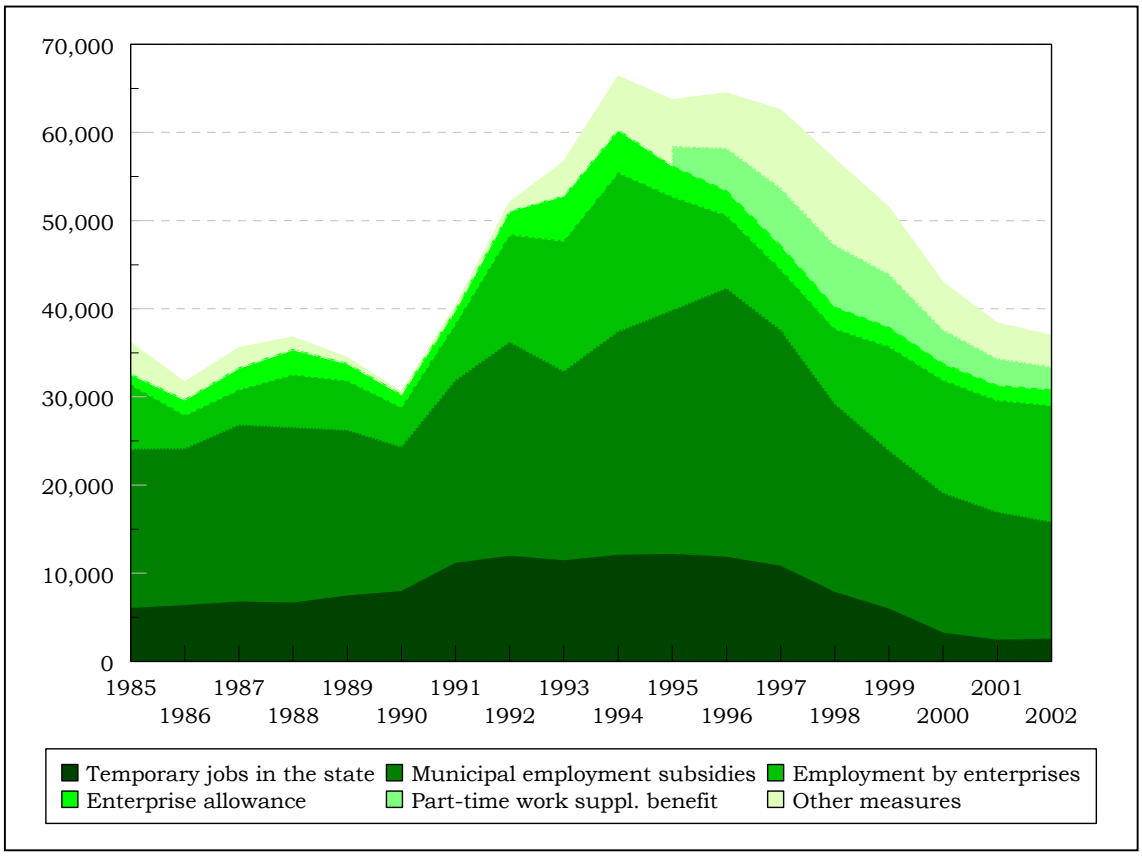
In 1985, there were 16,000 persons in MOL employment training, and from 1991 to 1992 – the first years of the economic crises – their number grew from 17,300 to 26,300 (Table 5.1). In the years that followed, MOL provided employment training became more frequent, due to worsening employment, reaching its peak of 46,800 trainees in 1997. Since then the number has decreased to 26,300 in 2002. There are between 8,000 and 9,000 courses arranged per year, covering a variety of skills closely related to the requirements of various jobs. The largest single field of studies is teleinformatics.

The results of the training have been evaluated as being good. MOL measures by the share of trainees who are employed three months after completing training. In 2001, that figure was 58%, slightly exceeding the MOL goal of 57%.

Selective measures

In addition to employment training, MOL co-ordinates a variety of selective measures designed to actively provide employment by enhancing the functioning of the labour market and to balance regional differences in employment rates. These measures range from temporary jobs in the public, as well as the private, sector to part-time work benefits and enterprise subsidies. At most, in 1994, these measures applied to some 66,400 persons (Figure 5.1), with about five per cent of the labour force still employed through various selective measures in 1997. By 2002, their number had dropped to about 37,000.

Figure 5.1 Persons employed by selective measures, 1985 – 2002



Source: *Finnish Labour Review* 1/2003

Temporarily paid employment refers to funds paid by MOL directly to an employer for the purpose of hiring an unemployed person. This employment can take place in the public or private sector. MOL also provides funding for entrepreneurs in the form of enterprise allowances.

The *part-time work supplementary benefit* system was implemented in 1995, whereby a person switching voluntarily from full-time to part-time work is eligible to compensation paid by the public employment service – given that the employer hires a formerly unemployed person to likewise work part-time. This compensation is paid for 12 months, and is 50% of the lost wage. The compensation cannot exceed the base unemployment benefit by more than 70%.

A special version of this arrangement is the 6+6 working time experiment, also known as the "job sharing", the "day shift model", or the "Seppänen model" in honour of Paavo Seppänen, Professor of Sociology, who first proposed it in 1967. In job sharing, a formerly full-time job is replaced by two part-time jobs. This provides a variety of benefits to all parties involved. The employer gains from invested capital being used more effectively through longer opening hours or production runs, additional flexibility due to the way in which the work is organised, and the option of a faster production pace during crunch hours by having the two part-timers active at the same time. The new employee gains a job, whereas the formerly full-time employee benefits from reduced exhaustion and additional free time. The state benefits from a reduction in unemployment. The experiment officially ended in 1998 in the public sector, but some of the enterprises that were involved in it found the Seppänen model useful and adopted it into their business practices. A major experience from the experiment was that the model is not at its best for reducing long-term unemployment, but in aiding fresh graduates enter the job market successfully.

In addition to the selective measures covered by Figure 5.1, MOL has also implemented a broad set of other measures including job alternation leave (often also called sabbatical leave), apprenticeship training, "head hunting" and finding jobs in the non-profit sector for the long-term unemployed.

As outlined in Section 4.2 above, the *job alternation leave* scheme was adopted in 1996 and has been used ever since by MOL as a tool to alleviate unemployment and help employees "cope" at work. The total number of people making use of the job alternation leave option has increased steadily, from 1,578 in 1996 to 6,244 in 2001. The length of the leave has been seven months, on average. Possibly a declining use of the scheme can be expected due to the tightened conditions laid down in the new Act that came into force on January 1, 2003.

Apprenticeship training merges, by means of MOL support, work with the appropriate training. Although the principle has been in use for centuries, apprenticeship training has only recently gained an official framework in Finland. Moreover, this form of entering the job market is quickly gaining ground. During the 1990s the number of apprentices quadrupled, to some 26,000 at the turn of the millennium, half in advanced training, half in basic training.

Head hunting refers to a three-year experiment that started in 2002. It involves finder's fees to people or organisations that find jobs for a person formerly unemployed.

Altogether, MOL employment training and selective measures have provided jobs for tens of thousands of Finns, especially during the country's recovery from the economic crisis in the early 1990s.

Employment service

The public employment service is co-ordinated by MOL. The regional and local administration of the employment service consists of 15 labour market departments and 176 employment offices. The labour market departments support the regional development of labour and the labour market. The employment offices, which are subordinate to the labour market departments, are responsible for supplying and training the labour force, giving career guidance and providing study information services for young people, as well as for adults.

A person may sign up as a job seeker at a public employment service whether unemployed or not. After an initial interview, the job seeker's skills are charted and a job-seeking plan made. To improve the likelihood of a person finding employment, selective measures and training may be used. Table 5.2 gives an overview of the evolution of the number of job seekers with the public employment service between 1985 and 2002.

Table 5.2 Number of job seekers at the public employment service, 1985 – 2002

Year	Job seekers during a month	of these unemployed (excl. layoffs)	New job seekers during a month	of these unemployed (excl. layoffs)	Ended job seekings
1985	273,400	155,100	38,400	26,900	37,000
1986	292,500	160,500	36,200	25,400	36,000
1987	298,600	156,300	35,000	25,000	36,600
1988	287,000	146,100	34,200	23,700	37,500
1989	260,300	122,100	33,500	21,800	36,100
1990	259,600	116,800	38,000	22,500	36,500
1991	396,300	208,400	52,400	25,800	38,300
1992	572,100	351,300	53,300	25,400	41,200
1993	714,000	470,800,	49,200	23,400	41,800
1994	755,400	509,400	39,500	21,600	42,000
1995	729,200	513,700	39,000	21,400	42,100
1996	724,400	479,400	39,100	21,100	43,000
1997	691,700	444,300	36,400	19,700	47,400
1998	642,900	404,800	36,100	20,400	42,100
1999	618,800	377,700	36,700	20,100	42,200
2000	584,100	352,700	34,800	19,100	43,300
2001	556,000	329,700	35,200	19,100	41,600
2002	553,200	319,200	34,800	18,400	40,400

Source: *Finnish Labour Review* 1/2003

There are two parallel systems of unemployment security running in Finland: a basic mode of security provided by the state, through the Social Insurance Institution of Finland (KELA), and a form of unemployment insurance guaranteeing earnings-related benefit,

administered by the unemployment insurance funds[46]. The earnings-related benefit is restricted to insurance-fund members who have been members of an unemployment insurance fund for at least ten months and have worked for at least 43 weeks prior to unemployment. Other unemployed persons may apply for state compensation. State unemployment assistance is paid to unemployed persons who have worked for at least 43 weeks prior to unemployment, but who are not members of an unemployment insurance fund. Labour market support, introduced in 1994, is of a discretionary (means-tested) nature and is paid to those who do not fulfil the preconditions for receiving earnings-related unemployment benefit, but also to those who have received earnings-related unemployment benefit for the maximum number of days (500).

Table 5.3 Unemployment security 1985 – 2002

Year	Unemployed job seekers	Unemployed members of insurance funds	Recipients of state unempl. assistance	Recipients of labour market support	Recipients of unemployment pension
1985	141.400	64.000	71.000	-	50.200
1986	150,700	70,800	73,600	-	61,400
1987	140,500	42,500	72,800	-	68,800
1988	127,600	56,900	59,600	-	68,700
1989	103,400	46,900	39,200	-	65,200
1990	103,200	47,500	35,,500	-	59,300
1991	213,200	109,500	87,700	-	52,000
1992	363,100	194,400	150,500	-	46,500
1993	482,200	268,200	195,900	-	45,500
1994	494,200	264,000	165,300	53,300	44,800
1995	466,000	238,700	76,400	142,700	39,800
1996	448,000	237,100	28,700	178,300	37,900
1997	409,000	208,500	25,500	173,300	41,100
1998	372,400	169,900	19,200	180,500	44,900
1999	348,100	150,000	16,700	175,900	48,,000
2000	321,100	135,700	15,900	159,600	50,900
2001	302,200	122,400	15,800	153,500	52,700
2002	294,000	118,200	n.a.	n.a.	54,700

Source: *Finnish Labour Review* 1/2003

Signing up as a job seeker at a public employment service is a prerequisite for receiving either type of unemployment benefit. Additional conditions are that the beneficiary is between 17 and 64 years old, seeks full-time employment and is able and willing to work. Both modes of state compensation are designed to provide a basic livelihood with the daily allowance being 23.02 Euro for five days a week, minus income tax of about 20%, supplemented by a child increment that varies with the number of dependent children. The insurance-based daily allowance consists of a base component of 23.02 Euro and an earnings-related component amounting to 45% of the difference between the daily pay and the base component. If the average monthly earnings exceed a certain threshold (currently

[46] The unemployment insurance fund may operate independently or be linked to a trade union, whereby membership of the fund automatically implies membership of the trade union.

2,071.80 Euro), then the benefit rate declines to 20% of this excess amount.[47] For someone with average monthly earnings (around 2,176 Euro), the daily allowance would be 56.02 Euro before tax, about twice the state compensation. On average, the rate of unemployment benefit is approximately 60% of the earnings while working.

State compensation or an insurance-fund daily allowance can be paid for a maximum of 500 working days for four consecutive years. Persons over 57 can be paid an allowance until they are 60. Long-term unemployed aged 60 and over are entitled to an unemployment pension under the specific terms laid down by law. But even while receiving such a pension, the person must remain a job seeker at an employment service. The distribution of the unemployed in the Finnish unemployment security system for 1985 – 2002 is displayed in Table 5.3.

In addition to public employment services, there are so-called temporary employment agencies that arrange hired labour and provide employment services. This mode of flexibility is discussed in Section 8.3.

5.2 Ministry of Social Affairs and Health

The Ministry of Social Affairs and Health (STM) directs and guides the development and policies of social protection, social welfare and health care. It defines the main course of social and health policy, prepares legislation and key reforms and steers their implementation, and handles the necessary links with the political decision-making process. The domain of the ministry also embraces safety at work, in which task it works in close cooperation with the labour market organisations.

Poverty and social exclusion

Finland's national action plan to combat poverty and exclusion is based on broadly agreed national premises laid down in the national social protection strategy.[48] The action plan is goal-oriented and binds various actors to joint objectives. The plan aims at promoting an ethically and economically sustainable model of society where solidarity supports in a constructive way the individuals' independent living and control over their own life. The action plan lists the measures to combat poverty and exclusion that the government, labour market organisations and the third sector have committed themselves to and deals with questions that will occur during the period covered by the plan (2001 – 2003). These measures are reviewed in relation to economic poverty, health problems, exclusion from the labour market, housing and education, and to other factors causing exclusion. The action plan actually incorporates a list of indicators evaluating the various dimensions of exclusion.

Social exclusion is estimated to apply to, depending on the definition used, tens or hundreds of thousands of Finns, making it a vast national problem. Due to profound and continuous changes in the skills demanded in the labour market, those who have lost their jobs are at great risk of losing contact with the labour market permanently. According to Ministry of Labour statistics, in 2002 there were still almost 80,000 Finns who had been without

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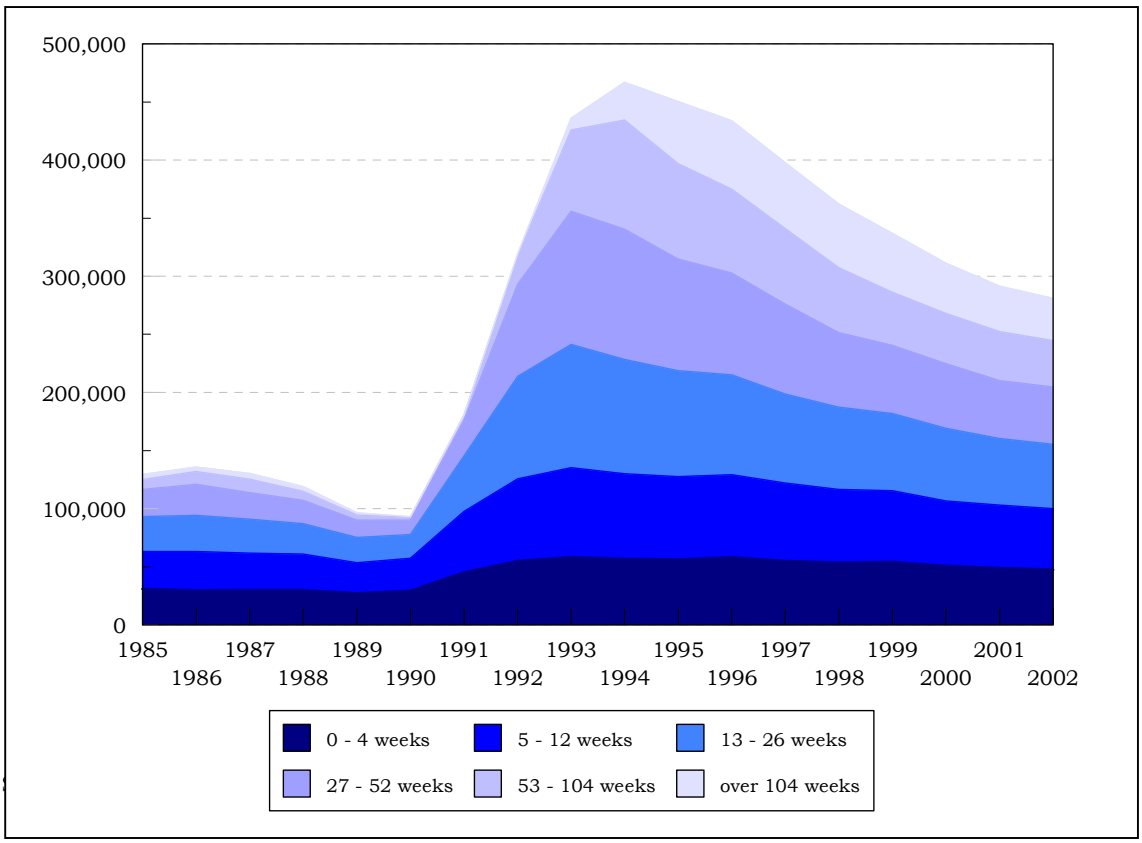
[47] Unemployed persons with work experience of over 20 years are entitled to slightly higher earnings-related unemployment benefit for 150 days.

[48] Ministry of Social Affairs and Health (2001).

work for more than 12 months consecutively, nearly half of them for more than 24 months (Figure 5.2). The average duration of unemployment was 50 weeks, a slight reduction compared to the situation since 1997 (51 – 52 weeks compared to only 15 weeks in 1990). Moreover, long-term unemployment is often accompanied by other problems, such as indebtedness, alcohol or drug abuse or homelessness.

Figure 5.2 Unemployed job seekers by duration of unemployment, 1985 – 2002

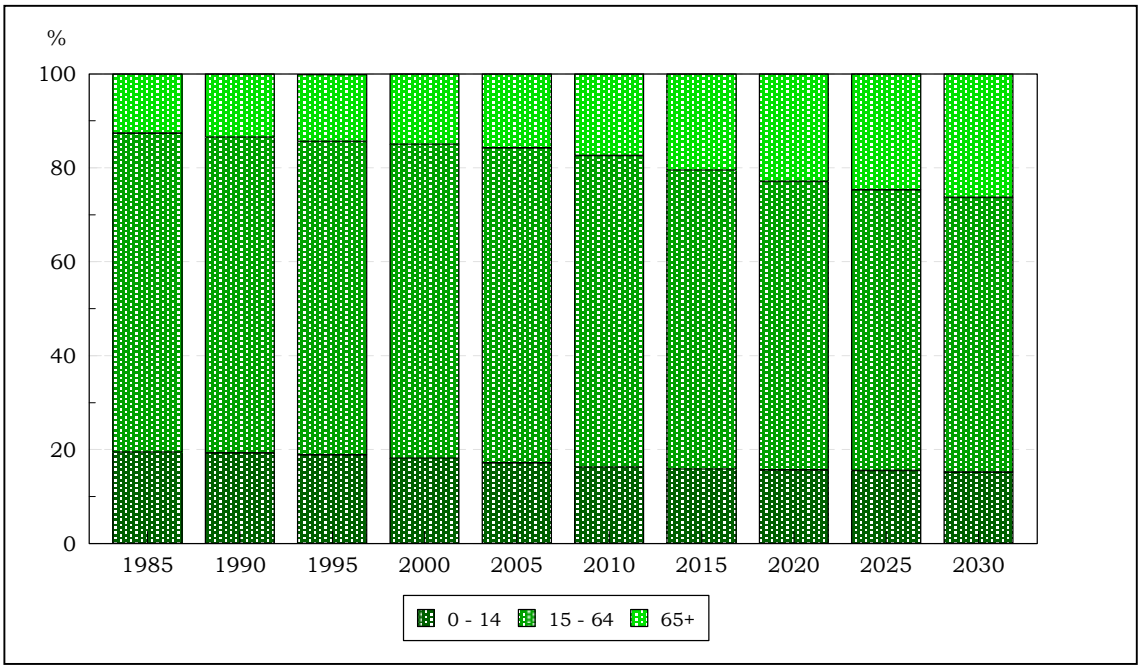


Ageing

The ageing of the population is seen as a great challenge to most European economies and to the Nordic welfare states, in particular. Already in 1998, 14.5% of Finns were over 65 years old. The Finnish baby boom generation is reaching retirement age, and the birth rate has been modest ever since World War II. Together with increasing life expectancy, this has meant that the number of Finns age 64 or less stayed nearly the same in 1985 – 2000 while, at the same time, the number of Finnish senior citizens increased by around 27% (Figure 5.3). According to stochastic simulations, this trend will significantly accelerate by the end of the decade, and by 2030 the ratio of people over 64 to the working age population will more than double, from about 0.22 in 2000 to around 0.45 in 2030.[49]

Figure 5.3 Population by age, 1985 – 2000, and forecasts up to 2030

[49] Also see Lassila & Valkonen (2002).



Gender equality

Judging by female participation in the labour force, Finland is one of the most gender-equal nations in the world. According to Eurostat Labour Force Survey results for 2001, almost half (47.4%) of the Finns in gainful employment are women compared to an average of 42.8% for EU-15. The labour force participation rate of Finnish females has traditionally been high and very close to that of Finnish males (Figure 5.4). Moreover, it is high in practically all age groups (Figure 5.5) and educational categories (Table 5.4), especially compared to other European countries. In addition, most working women are in full-time employment. The extensive availability of nursery care stands out as one of the major factors enabling such broad-based female participation in working life.

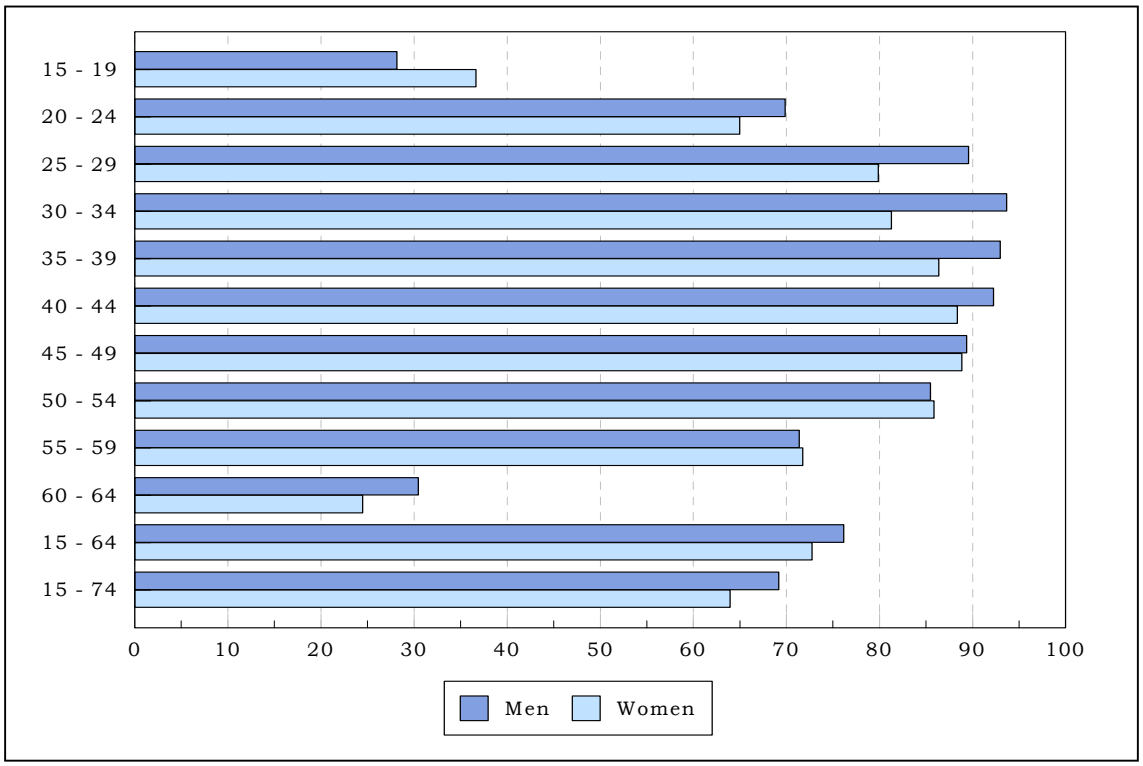
The Finnish labour market has, nevertheless, remained highly segregated, also by EU standards, as have the other Nordic labour markets. Gender segregation in the labour market is both horizontal and vertical in nature. There is still a strong female dominance in certain jobs, occupations and industries, while others are outstandingly male dominated.[50] Simultaneously, women are less likely to be promoted, and "glass ceilings" have been shown to prevent women from reaching top positions. With segregation occurring in all these dimensions, it is hardly surprising that the gender wage gap is still notably large, with women's average pay still only some 82% of that of men, compared to an EU average of 80.8%.[51]

Figure 5.4 Labour force participation rates (%) by gender, 1987 – 2002

the
4%

Source: Statistics Finland

Figure 5.5 Labour force participation rates (%) by age and gender, 2002



Source: Statistics Finland

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http://www.stm.fi/english/equality/equality_fset.htm and The Office of the Ombudsman for Equality at http://www.tasa-arvo.fi/www-eng/index.html for useful information and publications, especially Vartiainen (2002). Also see e.g. Pay developments – 2002 on the EIRO web site at http://www.eiro.eurofound.eu.int/2003/03/Update/TN0303102U.html

Mainstreaming rather than enforcing individual changes is the concept adopted in Finland to promote equality. Equality issues are to be taken into account in all decision-making. This has involved supporting female entrepreneurship and guiding men increasingly towards the paternal roles of father and grandfather, for example, facilitating the match between fatherhood and working life. Mainstreaming is also inherent in the text of the Act on Equality Between Women and Men that came into force in 1987. The Act requires both public authorities and employers to promote gender equality in working life. For instance, where possible, state committees and similar institutions must have a representation of no less than 40% from both genders. An Ombudsman for Equal Opportunities oversees the application of the Act.

A reform of the Equality Act is currently under way. A commission set up by the government for these purposes submitted its proposals in November 2002. The main goal of the commission's recommendations is to bring the Act into line with EU legislation and European Court of Justice decisions, as well as to remedy problems and deficiencies in its application. The principal social partners, however, strongly disagree on the proposed amendments and complements.[52]

Table 5.4 Labour force participation rates by level of educational attainment and gender for 25 to 64 year-olds, selected countries, 2001

	Below upper secondary education	Upper secondary and post-secondary non-tertiary education	Tertiary-type B education	Tertiary-type A and advanced research programmes	All levels of education
Men:					
Finland	**70**	**86**	**90**	**93**	**83**
Greece	82	88	85	90	85
Ireland	79	93	95	94	87
Netherlands (-00)	77	89	90	92	86
Switzerland	87	93	96	96	94
OECD mean	77	88	92	93	86
Women:					
Finland	**61**	**79**	**86**	**88**	**77**
Greece	40	57	79	83	52
Ireland	40	64	74	85	60
Netherlands (-00)	46	73	80	83	64
Switzerland	62	74	85	86	74
OECD mean	50	70	80	83	65

Source: OECD *Education at a Glance 2002*

Employee welfare, health and safety

The employer must appoint an employee welfare, health and safety manager in every workplace, while the employees are represented by a Labour Protection Delegate and a Labour Protection Committee. Labour Protection Inspectors, subordinate to the Ministry of

[52] See footnote 51 above for useful web sites and also the EIRO web site at http://www.eiro.eurofound.eu.int/2002/12/InBrief/FI0212108N.html

Social Affairs and Health, oversee and direct measures to promote employee welfare, health and safety.

A new Occupational Safety Act came into force on 1 January 2003. Compared to its predecessor, it is somewhat broader and much more specific, clarifying the responsibilities of employers. In particular, employers are obliged to apply safety management methods in all operations, including planning and organising work; to match human resources with the volume of work; to arrange monitoring of workloads and to monitor how these workloads correspond to employees' physical as well as mental capacity. Employers are also required to take actions to prevent harassment in the workplace. Employees are, however, also expected to actively take care of their own safety, as well as that of other employees.

A major aim of the new Act is to address the accelerating pace of work and the increased stress that characterises today's working life, by promoting "coping" with work through reorganisation of workplace conditions. The new legislation is seen to respond to a clear need as the number of workplace accidents has increased dramatically in the 1990s despite extensive measures to promote occupational safety. The total number of workplace accidents increased from under 86,000 in 1993 to almost 103,000 in 2001. As a further step towards improved occupational safety, the Finnish government has launched a medium-term occupational accident prevention programme for the period 2001 – 2005.[53]

One year earlier, on 1 January 2002, an Occupational Health Care Act had come into force, stipulating that occupational health care must be arranged for every employee. This can be done either at an enterprise health centre or at a corresponding private or municipal facility.

5.3 Ministry of Education

The Ministry of Education states as its vision that "Finland's future depends on know-how, the ability to capitalise on know-how and the ability to create innovations". Increasing the skill level of the entire population supports the development of Finland as a civilised nation, as well as Finnish competitiveness. This means answering to the training needs of society, as well as the economy, building Finland into a society where knowledge and know-how are the most important factors of production and where total investment in R&D remains high.

Considerable public funding of education has traditionally been a social priority in Finland. The public sector pays most of the costs of primary, secondary, as well as tertiary educational institutions. Private expenditure on educational institutions is negligible, and mostly made up of subsidies received from public sources. Measured by public expenditure on education as a percentage of GDP, Finland has persistently exceeded the OECD average. With a share of 6.2% for 1999, Finland reached a top-level ranking in the OECD area, beaten only by the other Nordic countries.

[53] For more details, see e.g. the EIRO web site at http://www.eiro.eurofound.eu.int/2003/03/ Feature/ FI0303203F.html

Table 5.5 Total public expenditure on education, 1995 and 1999, selected countries

	Public expenditure on education as a percentage of GDP		Public expenditure on education as a percentage of total public expenditure	
	1999	1995	1999	1995
Finland	**6.2**	**7.0**	**12.5**	**12.3**
Greece	3.6	2.9	7.0	5.2
Ireland	4.3	5.1	13.2	13.0
Netherlands	4.8	5.0	10.4	9.1
Switzerland	5.5	n.a.	15.2	n.a.
OECD mean	5.2	5.4	12.7	12.0

Source: OECD *Education at a Glance 2002* (Table B3.1)

Table 5.6 Distribution of the population and the labour force of 25 to 64 year-olds, by highest level of education attained, 2001, selected countries

	Primary and lower secondary education	Upper secondary education	Tertiary education	All levels
Finland				
- **population**	**26**	**42**	**32**	**100**
- **labour force**	**21**	**43**	**36**	**100**
Greece				
- population	49	28	22	100
- labour force	42	29	29	100
Ireland				
- population	43	22	36	100
- labour force	35	23	42	100
Netherlands				
- population	35	37	28	100
- labour force	28	40	32	100
Switzerland				
- population	12	55	33	100
- labour force	11	54	35	100
OECD mean				
- population	34	41	26	100
- labour force	29	42	29	100

Source: OECD *Education at a Glance 2002* (Tables A3.1a and A3.1b)

The educational policies pursued in Finland over the past decades are strongly reflected in the educational attainment level of the total population and, consistently, also of the labour force. In particular, while the proportions of the population and the labour force with an upper secondary level education are close to the OECD means, the corresponding proportions with a tertiary education are markedly higher than those for the OECD area on average (Table 5.6). Nevertheless, albeit steadily shrinking, the average difference in the educational attainment level between the younger and the older age groups is still notably high

in Finland. However, this is not due to the older age groups being exceptionally poorly educated but rather to young Finns of today being exceptionally well educated both compared to earlier generations and to the young people in other OECD countries (Table 5.7).

Table 5.7 Percentage of population having attained at least upper secondary education, by age group, 2001, selected countries

	25 – 64	25 – 34	35 – 44	45 – 54	55 – 64
Finland	**74**	**87**	**84**	**70**	**51**
Greece	51	73	60	43	28
Ireland	57	61	60	56	46
Netherlands	65	74	69	60	51
Switzerland	87	92	90	85	81
OECD mean	64	74	68	60	49

Source: OECD *Education at a Glance 2002* (Table A1.2)

5.4 Labour market organisations

The consensus-based interaction between the labour market organisations has contributed notably to the development of the knowledge and know-how infrastructures that lay the foundation for Finnish competitiveness. In contrast to the situation in many other countries, Finnish trade unions have over the past decades grown increasingly positive about technology, seeing it as a means of creating more welfare to be shared rather than a way to move a larger portion of the profits to the employers. This positive attitude has been strengthened further by the trade unions' representation in the Science and Technology Policy Council (STPC), and occasionally also on the board of Tekes (see Chapter 3).

Central confederations of trade unions

There are three central confederations of trade unions in Finland: SAK, STTK and AKAVA, organising close to 80 trade unions and more than two million union members. This corresponds to one of the highest rates of union membership in the industrialised world, or some 80% of the labour force. The three trade unions have been working together in accordance with a general agreement dating back to 1978.

The Central Organisation of Finnish Trade Unions (SAK) is the largest and oldest of the three, founded in 1907 (ten years before Finland gained her independence). SAK has 24 member trade unions and some 1.1 million members, who work in a wide variety of professions, ranging from industry and transport to private services, local government, and the state. SAK functions to a great extent through co-operation with other employee organisations, as well as with its one hundred thousand shop stewards. Traditionally SAK is associated with blue-collar workers but the distinction has become more blurred over the years.

The Finnish Confederation of Salaried Employees (STTK), founded in 1946, has 21 member unions with a total of 650,000 members, working in health care, industry, the local government and state sectors, as well as services and specialised occupations.

The Confederation of Unions of Academic Professionals in Finland (AKAVA) has 32 affiliated unions based on profession or line of education. The total membership of 420,000 represents employees with university-level or other high-level specialist education and training. Its members often occupy managerial, expert or teaching positions, with some 54% of them working in the public sector and some 53% of them being women.

Employers' associations

Employers are represented in collective bargaining by five confederations, of which the key actors are *The Confederation of Finnish Industry and Employers (TT)* and *The Employers' Confederation of Service Industries (PT)*. Each confederation covers a distinct sector with little overlap.

- *The Confederation of Finnish Industry and Employers (TT)* was founded in 1992 as a result of a merger between the Confederation of Finnish Industry (TKL) and the Confederation of Finnish Employers (STK). It is an interest group for employers functioning in industry, construction, traffic, and industry-related service sectors. It has over five thousand member corporations, which together provide over half a million jobs and account for some 75% of Finnish exports. Practically all corporations exporting goods from Finland are members of TT, which makes it the largest and most powerful organisation in Finnish domestic production and exports. TT provides counselling and lobbying, and represents its members in political decision-making, in particular in matters involving labour market policy or business, as well as economy, energy and trade policy. It can justifiably be said that TT is the employers' counterpart to SAK.

- *The Employers' Confederation of Service Industries (PT)* consists of 13 service sector member confederations from private business such as teleinformatics, education, banking and insurance. It has some 8,500 member companies, which together employ nearly 350,000 people.

- *The Commission for Local Authority Employers (KT)* is the confederation of the 448 Finnish municipalities, promoting their interests as employers. Its members employ some 416,000 incumbents and employees, 80% of which work in education and health and social services.

- *The State Employers' Office (VTML)* is part of the Department of Treasury, and represents the state as an employer in discussions and debates relating to income and labour policies, including collective bargaining. The state employs some 200,000 people in its 164 agencies.

- *The Church Delegation for Collective Bargaining (KiSV)* represents the 586 parishes of the Evangelical Lutheran Church, which together employ nearly 20,000 people.

5.5 Collective bargaining

Centralised collective bargaining in Finland began with the employers acknowledging the trade unions in 1940. The central labour market organisations agreed on an incomes settlement system in 1944, and collective bargaining has been the norm ever since the 1960s. Municipalities and the state have been part of the system since 1970 and parishes since 1975.

Incomes settlements [54]

Centralised incomes settlements can be negotiated between the central confederations of employers and employees. These settlements may also involve the Finnish government, which has been the case since 1968. The concluded tripartite *centralised incomes policy agreements* typically last from one to two years. They cover not only wages, but also aim to secure improvements in working life and the social security system through measures concerning gender equality, benefits and contributions to social welfare and pension schemes, taxation and principles of good practice in the labour market. Indeed, much of the system of basic social welfare end employment-related benefits derives from these centralised incomes policy agreements, which gives an indication of their considerable influence on the Finnish economy and society. In recent years, particular efforts have been made to reduce unemployment and to keep inflation low.

If the central confederations of employers and employees, supported by the Finnish government, have managed to reach agreement on a comprehensive centralised incomes policy settlement, then the next step is for individual trade unions and employers' federations to negotiate *collective agreements* for each branch of the private and public sectors. The general principles laid down in the centralised incomes policy settlement regarding wage increases and other working life reforms serve as guidelines in these sector-level negotiations. If, on the other hand, the central confederations have failed to negotiate a centralised agreement, then the trade unions and employers' federations formulate collective agreements separately for each sector.[55] In any case, the terms of employment stipulated in these collective agreements set the legally enforceable minimum standards for the respective sector. This also includes minimum wages, as there is no minimum wage legislation in Finland.

A national collective agreement is binding for all employers belonging to the federation. If about half of the employees in the sector in question work for these organised employers, then the collective agreement has been seen to be universally binding; that is, to apply also to those employers who are not members of the federation. The status of the collective agreement for the road haulage sector remained largely unclear, however. The new Employment Contracts Act that came into force in June 2001 ended this inflexible rule by providing a more precise definition of "representativeness". More precisely, the Act explicitly stipulates that a collective agreement with general validity is binding on all employers, not just on employers that are members of the signatory employers' organisations. A special committee was appointed to examine the issue of "general validity". It completed its work in November 2002, confirming that the agreement for the road haulage sector is also to be considered generally valid.[56]

After negotiations have been completed at the central confederation and individual union level, a final step involves local negotiations to meet particular needs of various enterprises, public authorities and institutions. Sector-level collective agreements have been made increasingly open to *locally settled agreements* concerning terms of employment.

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[54] The text of this sub-section is heavily based on the joint publication "*Together*" by SAK, STTK and AKAVA from 2001.

[55] The period 1990 – 2003 includes three collective wage settlements agreed at the sectoral level (for 1994, 1995 and 2000), each lasting for one year; for the other years, a total of six centralised incomes policy agreements were signed, all of two years' duration.

[56] For more details, see e.g. the EIRO web site at http://www.eiro.eurofound.eu.int/2002/12/ InBrief/ FI0212109N.html and http://www.eiro.eurofound.eu.int/2002/12/study/index.html.

This increased flexibility has been used especially when it comes to working hours, but increasingly also in relation to remuneration systems. In these workplace negotiations, the employees and their trade union are represented by a shop steward.

The three-stage system outlined above represents a new, more flexible model of collective bargaining, the development of which started in the first half of the 1990s.[57] The tendency of centralised bargaining giving way to more localised bargaining intensified in the mid 90s when an increasing number of issues in collective agreements were made negotiable at a local level. Important aspects contributing to this development were a high unemployment rate in combination with a positive attitude towards local bargaining in workplaces. Gradually this resulted in the present system, where the implementation of collective agreements is actually agreed upon at the local level in accordance with the special needs of each workplace, but within the limits predefined by national and sectoral bargaining, as well as legislation.

After a collective agreement has been reached and concluded for a branch, the employers' federation and the trade union are to supervise compliance with the agreement. Moreover, an industrial peace obligation applies while a collective agreement is in force, during which period it is illegal to organise strikes in an attempt to change the content of the agreement. If a collective agreement expires and no new agreement has been made, then employees are entitled to go on strike and employers may declare a lockout. However, the Ministry of Labour can have the strike delayed by up to two weeks if the damage it will cause is unreasonable or it threatens functions vital to the society. Political strikes are likewise possible and legal, as are sympathy strikes. These are also subject to pre-notification.

On the whole, there have been rather few strikes in Finland in recent years (Figure 5.6). Compared to other European countries, industrial action in Finland over the period 1998 – 2001 stands out as rather moderate with dispute activity often following the course of the bargaining cycle.[58] When it comes to the sectors most strongly affected by industrial action, as well as major reasons for industrial action, Finland is very similar to the rest of Europe. In particular, industrial action is heavily concentrated on the transport and manufacturing sectors with the leading dispute issues being pay and employment (e.g. redundancies and job losses).

The *National Conciliator's office* is a public authority, subordinate to the Ministry of Labour, with the duty of promoting industrial peace. A state conciliator, appointed by the President for four years at a time, and six part-time district conciliators facilitate the negotiation partners in reaching collective agreements. It is the conciliator's task to find a solution that avoids a labour dispute. Should no agreement be reached, a strike notice may follow. Then the conciliator strives for an amenable solution that would prevent the strike – or failing that, to end the strike as soon as possible.

The *Labour Court* concentrates on disputes regarding collective agreements, and those only. Agreements between an individual employer and employee – that is, contracts of

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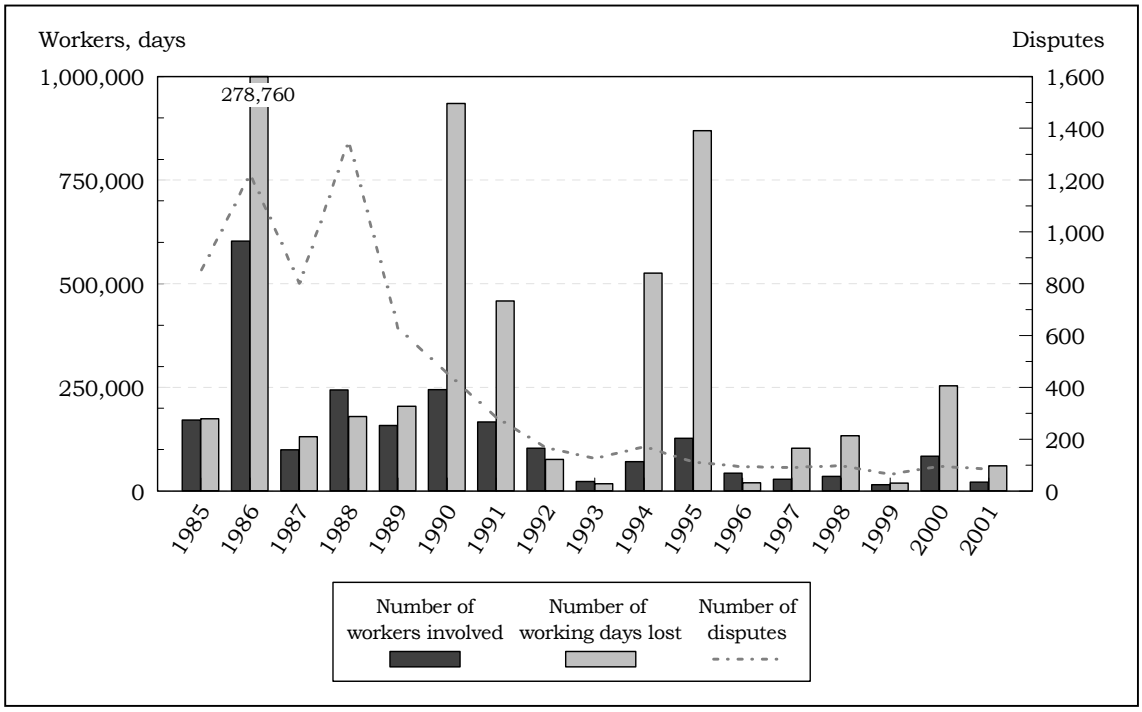
[57] For a brief background outline, see e.g. the EIRO web site at http://www.eiro.eurofound. eu.int/1997/08/inbrief/FI9708127N.html

[58] See e.g. the EIRO web site at http://www.eiro.eurofound.eu.int/2003/03/Update/ TN0303104U.html. Measured by the number of working days lost per 1,000 employees over the period 1991 – 2000, Finland ranks fourth, though, among the 15 European countries covered in a recent study by Seip & Stokke (2002). Finland's relative position was unchanged compared to the period 1981 – 1990, albeit the absolute number of lost working days per 1,000 employees was considerably higher in that earlier period, or 373 (compared to 135 in 1991 – 2002).

employment – are outside its bailiwick. Annually, some 70 – 90 cases are settled by the Labour Court, typically involving either different interpretations or breaches of collective agreements. It has the right to levy fines for a breach of the collective agreement.

Figure 5.6 Industrial action, 1985 – 2001



Source: Statistics Finland

The centralised incomes policy agreement for 2003 – 2004 [59]

A new two-year central incomes policy agreement for 2003 – 2004 was formally signed by the social partners in December 2002. It covers over 90% of all wage earners.[60] After the central agreement had been signed, the government announced that it will implement the promised tax cut and employment package containing various employment supporting measures.

The overall cost of the agreed wage increases is 2.9% in 2003 and 2.2% in 2004. These wage increases contain both general increases for all workers and a separate union increment and gender increment in support of, respectively, sectoral distribution (low-paid workers) and gender wage equality. The wage deal also includes a general negotiation clause, a wage development clause and an index clause. Apart from wage provisions, the social partners also agreed on a broad range of measures of a more qualitative nature: improved status for workers' representatives and labour protection (health and safety) dele-

[59] For more details, see e.g. the EIRO web site at http://www.eiro.eurofound.eu.int/2002/12/Feature/FI0212103F.html

[60] Among the employees working in industries organised by unions affiliated to the three central confederations of trade unions, the coverage of the new centralised incomes policy agreement is 86% for SAK, some 95% for STTK, and no less than 98% for AKAVA. The collective bargaining coverage in Finland is one of the highest in Europe and is achieved by the dominance of intersectoral agreements and the principle of "general validity". For a cross-country comparison, see e.g. the EIRO web site at http://www.eiro.eurofound.eu.int/2002/12/feature/ TN0212101F.html

gates[61]; improved supervision of the employment terms of foreign workers; implementation of a daily working time minimum of four hours, and more effective control of working hours; improved redundancy protection in the form of employment programmes to help redundant employees to find a job quickly[62]; extension of the period of increased earnings-related unemployment benefits for employees with 20 years' employment; extended adult training opportunities and increased adult training benefits; extension of the partial care leave scheme, allowing parents of young children to reduce their working hours, to cover a child's first years in school.

Only a few strategically important sectors decided to reject the deal. These trade unions represent workers in seafaring, aviation, road transport, and the forest processing and food industries. During the first months of 2003, however, most of these sectors and specific employee groups also managed to sign collective agreements, the wage increases of which are, moreover, well in line with those in the centralised incomes policy agreement.[63]

Unionisation [64]

Organised employees pay membership dues to their trade unions. In return they enjoy benefits such as contractual security, training, legal aid and leisure-time services. Through their trade unions, they are generally also members of an unemployment benefit fund for their various industries, which entitles them to earnings-related benefit in case of unemployment, given that their unemployment fund membership has lasted for at least ten months (cf. Section 5.1 above). On the other hand, all employees who are members of an unemployment fund are not necessarily also members of a trade union. The number of

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61 These representatives and delegates are regulated by law. The Act on Co-operation Within Undertakings (from 1978) aims to promote interaction between business management and the staff, as well as among members of the staff by increasing the opportunities of the employees to influence the handling of matters relating to their work and workplaces. The Act actually requires employers and employees to co-operate in relation to several important workplace matters, including changes affecting the status of staff, retooling, closure of the enterprise, employee welfare, health and safety at work, training programmes, and promotion of gender equality. The Act applies to undertakings normally employing at least 30 persons, but applies in some cases also to smaller undertakings. Similar purposes are set forth for the Act on Personnel Representation in the Administration of Undertakings (from 1990). It entitles personnel representation in decision-making in executive, supervisory or advisory bodies of the undertaking when they are handling matters of importance to the business operations, finances, and the personnel's position in undertakings with a regular staff of at least 150 working in Finland.

62 The trade unions were not successful in obtaining better compensation for, and protection against, collective redundancies. They claimed that the cost for employers of making employees redundant in Finland is among the lowest in the EU countries, when comparing the level of compensation for employees in collective redundancies (Hellsten 2001). Measured by the proportion of total labour costs made up of severance payments, Austria ranked highest (3.1%), while Finland ranked third (0.3%) from the bottom of the list, followed by Sweden (0.2%) and Luxembourg (0.1%). Denmark, Ireland and the UK were not included in the study, though. One explanation for Finland's low ranking is that in contrast to many other EU countries, companies closing down in Finland do not have to make any specific direct redundancy payments; they only pay the dismissed employees what they are entitled to on the basis of the Employment Contracts Act. Instead the statutory redundancy payment scheme is financed collectively by employers through a levy of 0.06% of the payroll. See further e.g. the EIRO web site at http://www.eiro.eurofound.eu.int/2002/09/feature/FI0209102F.html.

63 For details, see e.g. the EIRO web site at http://www.eiro.eurofound.eu.int/2003/03/InBrief/FI0303202N.html

64 This text is heavily based on two recent reports published at the EIRO web site, *viz.* http://www.eiro.eurofound.eu.int/2002/12/feature/TN0212101F.html and http://www.eiro. eurofound.eu.int/2003/02/Feature/FI0302204F.html

non-unionised unemployment fund members has, in effect, grown steadily over the past decade or so. Indeed, the number of members of the only unemployment fund that does not require union membership (YKT) more than trebled (from 48,000 to 180,000) between 1994 and 2001. Correspondingly, the organisation rate of the unions' unemployment funds declined and stood at 74.7% in 2001 (83.8% with YKT members included).

Needless to say, this growth in the number of non-unionised unemployment fund members has had a depressing impact on trade union density (measured as the organised labour force as a proportion of the potential membership, that is, people who are either wage-earners or unemployed). The exact contribution of this trend to the overall development of union density remains open, though. One major reason for this is that there is no unique measure of union density in Finland. Instead union density is measured differently in different studies. Apart from the union density based on unemployment fund statistics – and reported above – other measures also exist in parallel.

The Ministry of Labour reports two different measures of union density: one based on a comprehensive survey of trade unions, and one based on a sample of wage-earners. So far, the Ministry has conducted three trade union surveys: in 1989, 1994 and, most recently, 2002. According to these surveys, union density fell by more than 7 percentage points between 1994 and 2001, from 78.2% to 71.2%.[65] According to the Ministry's wage earner based working life barometer, union density was 83% in 2001. Based on a sample of the labour force, Statistics Finland reports a union density of 65.6% for 2001. The trade unions themselves put union density on average at some 80–83% for 2001. The European Foundation reports a trade union density of 79% for Finland for 2001, one of the highest in the industrialised world. A common feature of all these union density measures, however, is that they all point to a decline in union density since the mid 90s.

The decline in union density has been more marked among men (–10 percentage points) than among women (–4 percentage points), giving a union density in 2001 of 66.8% for men and 75.6% for women.[66] This gender difference in the union density and its evolution over time is largely explained by the fact that union density is highest (almost 87%) in the public sector and has also remained at a high level. Some 70% of the sector's employees are women, which corresponds to about 40% of female employment.

The decline in trade union density since the mid 90s can be explained mainly by the economic upturn during the latter half of the 1990s, accompanied by structural changes in the economy and consequently also in the labour force. Union density in Finland typically increases during economic downturns and decreases during periods of economic growth. The concentration of employment growth in private services in combination with the relatively low union density in this sector (55.3% in 2001) stand out as yet another major factor contributing to the decline in overall union density since the mid 90s.

A distinct feature of the period since the mid 90s, however, is that union density among the unemployed has dropped more than among the employed, which is probably, at least in

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[65] The trade union survey for 2001 indicates that the total number of trade union members was 2.08 million in 2001, an increase of 18,000 members compared to 1994. Of this total membership, more than one-fourth represents various special groups such as students, pensioners or self-employed; i.e., they are not to be classified as wage earners or unemployed. If these special groups were retained, then union density would be as high as 90.6% for 2001.

[66] Women's unionisation rate exceeds that of men also in Denmark and Sweden, while the reverse situation prevails in other industrialised economies for which information is available.

part, due to the rapid growth in long-term unemployment in these years despite strong economic recovery. The persistently high unemployment rate among young people may also partially explain it. On the whole, unionisation is much less common among young people (only some 40% in 2001), and the gap between the age group with the highest union density (50 – 59 year-olds with a union density of close to 79% in 2001) has widened further since the mid 90s. With labour market entrants being increasingly less unionised, but still facing a relatively high risk of becoming unemployed, a depressing impact on union density is only to be expected. This tendency is further strengthened by the frequency of part-time and fixed-term employment contracts among young people, as union density has declined notably among those in atypical forms of employment.[67]

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[67] According to EIRO figures the unionisation rate of non-permanent employees is 70% compared to 85% among permanent employees, http://www.eiro.eurofound.eu.int/2002/ 02/study/TN0202101S.htlm.

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The Commission for Local Authority Employers (KT); http://www.kuntatyonantajat.fi

The Confederation of Finnish Industry and Employers (TT); http://www.tt.fi

The Confederation of Unions of Academic Professionals in Finland (AKAVA); http://www.akava.fi

The Employers' Confederation of Service Industries (PT); http://www.palvelutyonantajat.fi

The Federation of Finnish Enterprises; http://www.yrittajat.fi

The Finnish Confederation of Salaried Employees (STTK); http://www.sttk.fi

The Office of the Ombudsman for Equality; http://www.tasa-arvo.fi/www-eng/index.html

The State Employers' Office (VTML); http://www.vm.fi

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List of acts referred to in Chapter 5

Act on Co-operation Within Undertakings; http://www.mol.fi/english/working/actoncooperation2.html

Act on Equality Between Women and Men; http://www.tasa-arvo.fi/www-eng/legislation/

Act on Personnel Representation in the Administration of Undertakings; http://www.mol.fi/english/working/personnelrepresentation2.html

Occupational Health Care Act; http://www.finlex.fi/english/laws/index.php

Occupational Safety Act; http://www.finlex.fi/english/laws/index.php

6. EMPLOYMENT TRENDS AND FLEXIBILITY

This chapter outlines recent employment trends in the Finnish labour market and their interplay with the performance of the Finnish economy. It also comments on two key types of employment flexibility: unemployment (through individual or collective redundancies) and layoffs. The use of foreign labour is also briefly discussed. Working time flexibility and flexible types of employment – that is, part-time and temporary work – are discussed in the next two chapters.

6.1 Employment trends

Table 6.1 provides some basic information on the evolution of the total Finnish population, the active age population (aged 15–64), and the employment and unemployment trends of this particular age group of the population. Most conspicuous are the dramatic drop in employment in the early 1990s, the consequent explosion in the number of unemployed, and the rather slow recovery in employment in post-recession years.

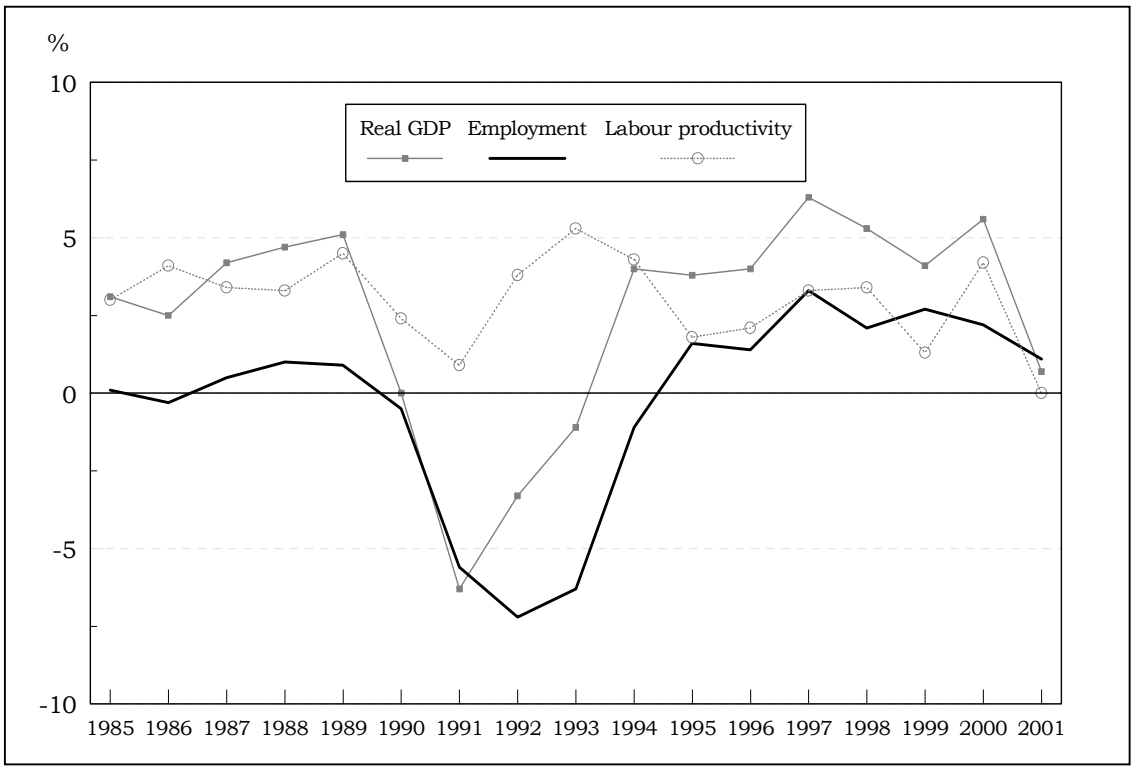
Table 6.1 Population, employment and unemployment trends, 1985 – 2001

	Total population ('000)	Population aged 15–64 ('000)	Total employment 15–64 year-olds ('000)	Total unemployment 15–64 year-olds ('000)
1985	4,902	3,339	2,413	128
1986	4,918	3,345	2,405	142
1987	4,932	3,347	2,401	136
1988	4,946	3,345	2,414	119
1989	4,964	3,344	2,460	90
1990	4,986	3,351	2,461	89
1991	5,014	3,367	2,340	182
1992	5,042	3,383	2,181	301
1993	5,066	3,393	2,050	410
1994	5,088	3,403	2,039	411
1995	5,108	3,409	2,084	381
1996	5,125	3,415	2,112	365
1997	5,140	3,426	2,155	315
1998	5,154	3,441	2,207	288
1999	5,165	3,455	2,283	260
2000	5,176	3,465	2,321	253
2001	5,188	3,471	2,350	238

Source: Statistics Finland

The trends outlined in Table 6.1 reflect the turbulence in the Finnish economy over the past decade or so with steep shifts between business cycle upturns and downturns. This in combination with substantial efforts to improve productivity provides an important explanation for the less than expected growth in employment in the post-recession period (Figure 6.1). The economic crisis of the early 1990s also speeded up the ongoing structural change both between and within sectors, which simultaneously affected the gender distribution between, as well as within, sectors (Table 6.2).

Figure 6.1 Real GDP, productivity and employment growth, 1985 – 2001



Source: Statistics Finland

Table 6.2 Employed persons by industry, 1985 – 2002

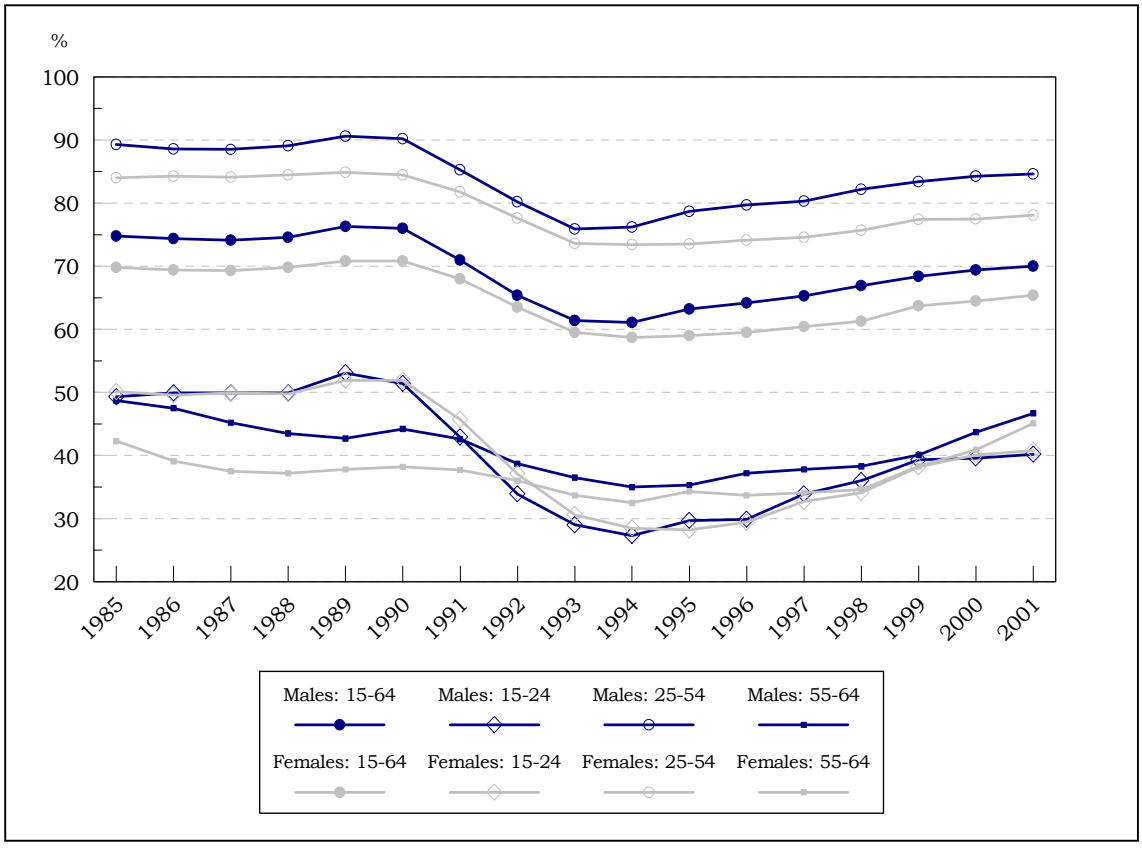
	Total ('000)	Relative share of			Female proportion in		
		primary sector	secondary sector	tertiary sector	primary sector	secondary sector	tertiary sector
1985	2,437	11.4	31.8	56.5	38.0	29.6	60.7
1986	2,431	10.9	31.8	57.1	36.5	29.5	60.6
1987	2,423	10.4	31.1	58.5	35.9	29.1	60.2
1988	2,431	9.8	30.5	59.6	35.3	28.2	60.1
1989	2,507	9.3	30.3	60.3	34.3	27.4	60.0
1990	2,504	8.9	30.2	60.8	35.6	26.9	59.9
1991	2,375	8.8	28.7	62.4	36.2	27.0	60.1
1992	2,206	8.9	27.3	63.6	34.5	27.2	60.2
1993	2,071	8.8	26.5	64.4	32.8	26.8	59.8
1994	2,054	8.7	26.1	64.9	34.3	26.1	59.4
1995	2,099	8.1	27.3	64.4	33.5	24.8	59.3
1996	2,127	7.5	27.2	65.0	33.3	24.2	58.9
1997	2,170	7.1	27.4	65.3	32.7	23.9	58.8
1998	2,222	6.5	27.6	65.6	32.6	24.1	58.3
1999	2,296	6.3	27.7	65.7	31.9	24.5	58.7
2000	2,335	6.2	27.5	66.1	29.9	24.0	58.8
2001	2,367	5.7	27.1	66.9	31.1	24.1	58.5
2002	2,372	5.4	26.9	67.4	32.3	24.1	59.2

Source: Statistics Finland

Figure 6.2 shows the evolution of employment rates[68] by gender for the active age population as a whole and separately for three specific age groups. The following main patterns emerge. First, the difference in employment rates between men and women has been persistently small. Second, not surprisingly the employment rates of the youngest and oldest age groups are considerably lower than for the in-between age groups. Finally, the deep recession strongly affected the employment rates of all age groups, but only the oldest age group (55–64 year-olds) has experienced a full recovery of employment rates to pre-recession levels.

The activity rate[69] of the active age population also fell due to the recession, but less dramatically than the employment rate. The activity rate of roughly 79% that characterised the active age male population in the pre-recession years had dropped to some 75% by 1994, at which level it remained until 1998. By 2001, it had crept up to almost 77%. The activity rate of the active age female population was about six percentage points lower, or around 73%, in the pre-recession years. By 1994, it had declined to some 69%, after which it has slowly increased towards its pre-recession level, standing at 72.4% in 2001.

Figure 6.2 Employment rates of the active age population by gender, 1985 – 2001



Source: Statistics Finland

In this context it may also be noted that self-employment has traditionally been of marginal importance in balancing the employment situation in the Finnish labour market. Self-employment measured as a percentage of total employment was about 16% among men in 1985, peaked at about 19% in the recession years, and by 2001 had returned to its pre-

[68] The employment rate illustrates the proportion of employed persons in the population category in question.

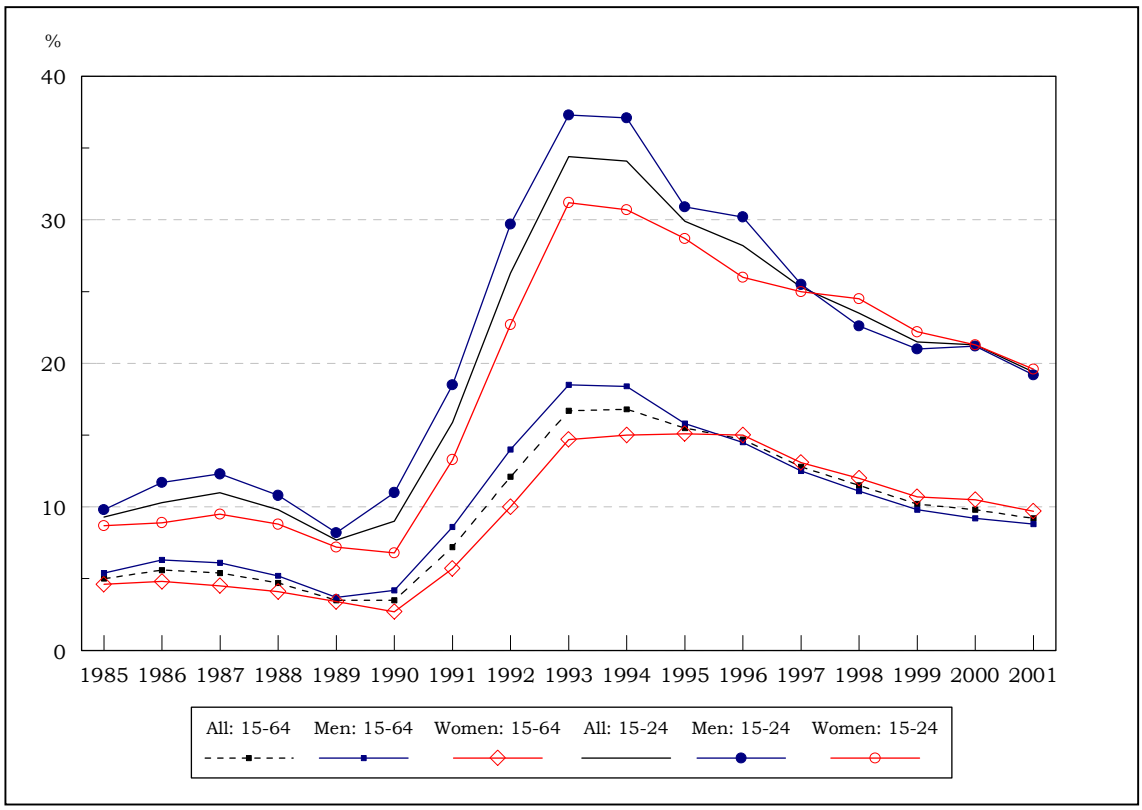
[69] The activity rate measures the sum of the employed and unemployed as a share of the population category in question.

recession level. Self-employment is even less frequent among women and has, moreover, steadily declined in the period 1985 to 2001 (from some 11% to 8%) irrespective of boom and recession years.

6.2 Unemployment trends

The deep economic crises of the early 1990s into which the Finnish economy was suddenly plunged, starting in autumn 1990, led to a loss of nearly half a million jobs in three years and exploding unemployment. As shown in Figure 6.3, the unemployment rate of the active age population rose from 3.5% in 1990 to almost 17% in 1994. Despite the economic recovery in the late 1990s, the unemployment rate has only slowly dropped. The figure also reveals that unemployment spread first in the male workforce, and had already started to decline when unemployment was still rising in the female workforce. In 1996, the unemployment rate of women exceeded that of men, and this rather exceptional situation has continued until recently. The divergence in gender-specific unemployment trends primarily reflects the outstanding segregation of men and women across industries. The economic crisis first hit the male-dominated export sectors, spread to domestic-led female-dominated branches and, finally, also to the female-dominated public sector.

Figure 6.3 Unemployment rates of the active age population and of the youngest age group, 1985 – 2001



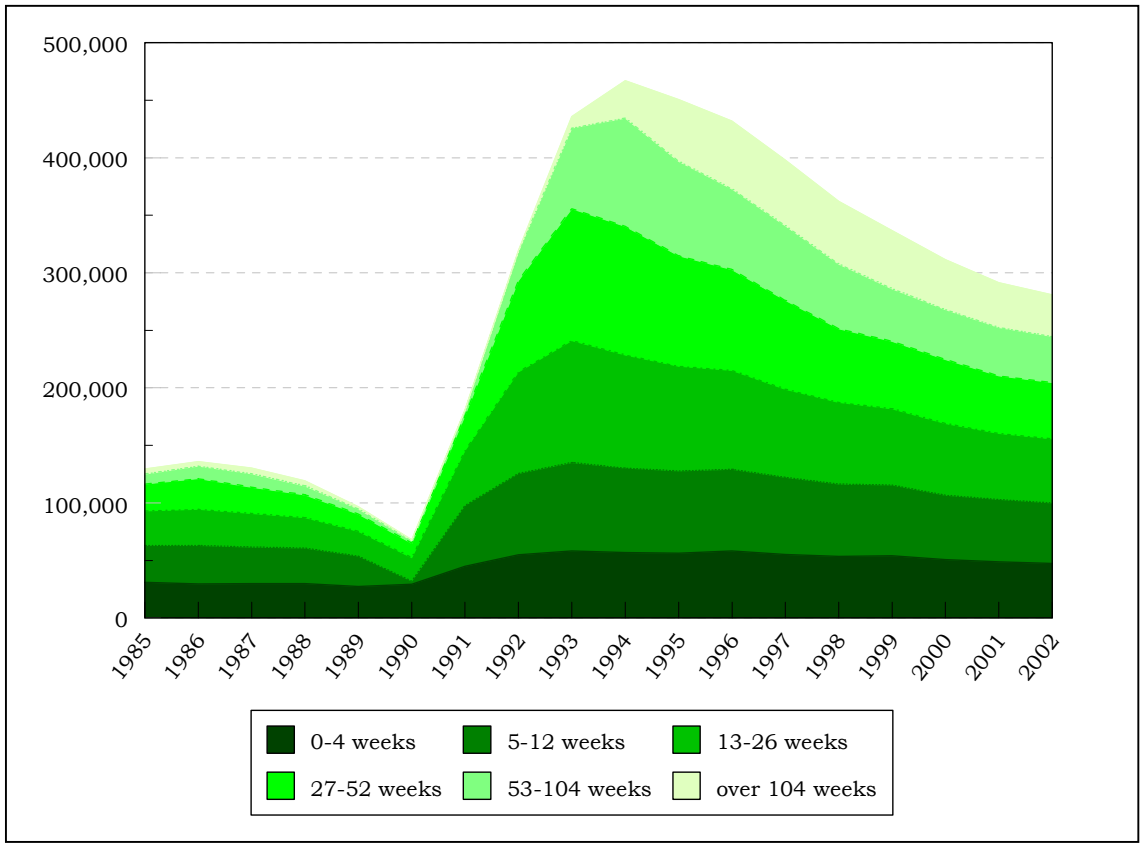
Source: Statistics Finland

Two categories of unemployed, especially, have remained of particular political concern, *viz.* youth unemployment and long-term unemployment. As can be seen from Figure 6.3, unemployment among young people has remained at a very high level in the post-recession

period both when compared to pre-recession youth unemployment rates and post-recession average unemployment levels of the total labour force.

The worsening long-term unemployment problem is evident from Figure 6.4. In 1991, less than 3% of the unemployed had experienced an unemployment spell of one year or more. Only 0.3% had been unemployed for over two years. In 1994, the corresponding shares were close to 30% and 7%, respectively. The relative share of the long-termed unemployed continued to grow and has started to decline only very recently. In 2001, the respective shares stood at some 27% and 13%.

Figure 6.4 Unemployed job seekers by duration of unemployment, 1985 – 2002



Source: *Finnish Labour Review* 1/2003

6.3 Layoffs

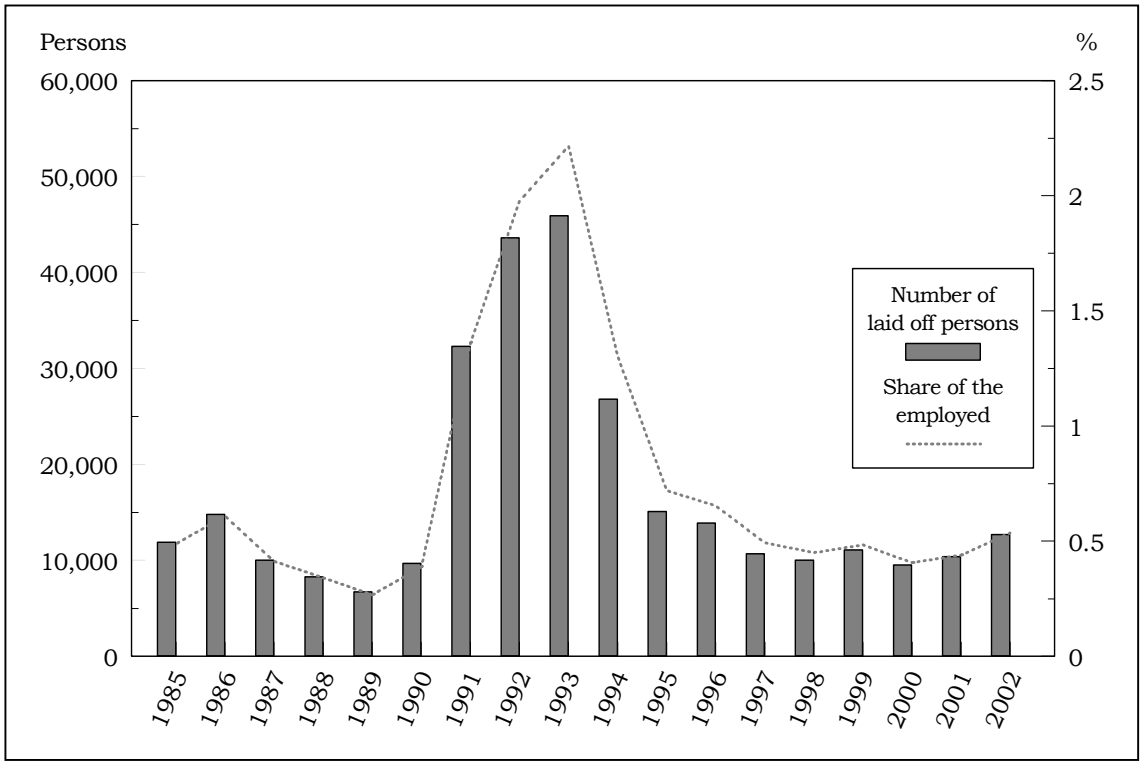
The number of laid off persons varies considerably with the business cycle, and reached its highest level ever during the economic crises in the early 1990s (Figure 6.5). The use of layoffs diminished rapidly during the economic recovery period, but has in the last few years tended to increase rather than decrease further.

According to statistics compiled by the Confederation of Finnish Industry and Employers, manufacturing workers were laid off for an average of 9 hours in 2001 compared to 14 hours in 2000. The variation across industries is huge, however. The average number of layoff hours per worker was three times higher, or 25, in the textile industry (34 in 2000).

In recent years, higher-than-average numbers of layoff hours have been recorded also for metal and electronic equipment industry workers.

Statistics compiled by the Confederation of Finnish Industry and Employers further show that in 2002 layoffs occurred in 9% of manufacturing workplaces, in 25% of construction workplaces, but only in some 6% of the Confederation's service sector member workplaces. The average share of manufacturing workplaces using layoffs has varied between 5 and 9% in the post-recession period. Measured by the proportion of the workforce laid off, this corresponds to between 0.4 and 0.9%. In the recession years 1992 and 1993, this share was considerably higher or around 3.4%.

Figure 6.5 Frequency of layoffs, 1985 – 2002



Source: *Finnish Labour Review* 1/2003

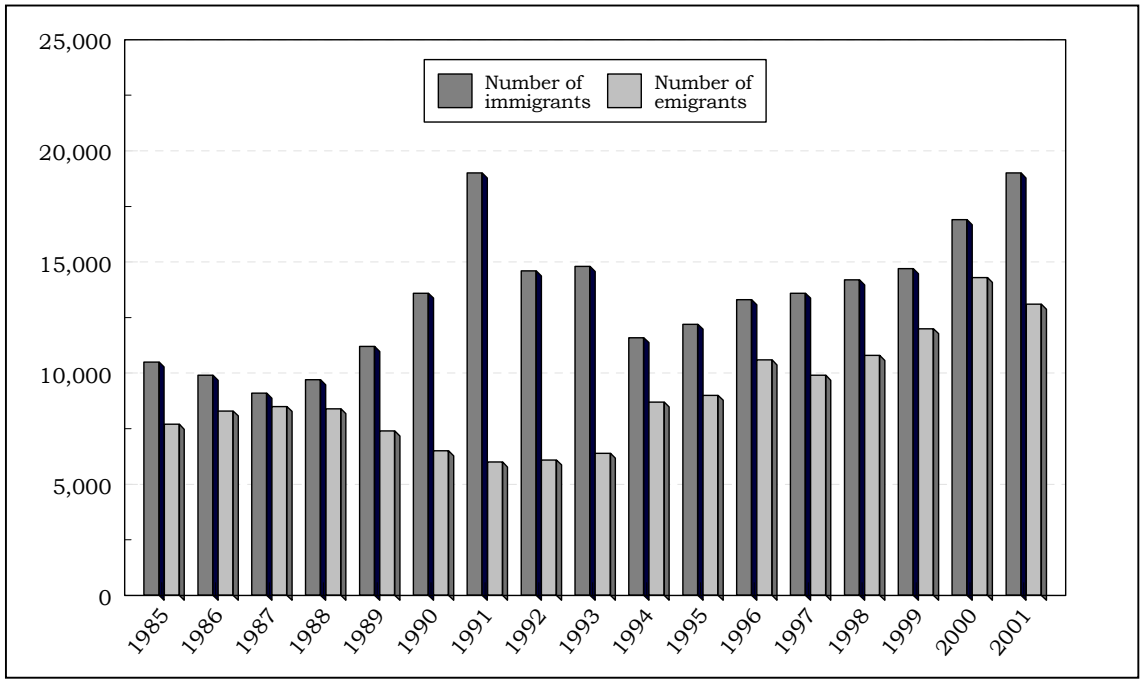
6.4 Foreign labour

Migration to Finland is very moderate (Figure 6.6). The total number of immigrants was 19,000 in 2001, the highest since 1991. Of these, about one-fourth or some 5,000 came from the other Nordic countries. The number of immigrants has ever since the early 1980s exceeded the number of emigrants, keeping net immigration positive.

In view of the moderate migration pattern, it is only to be expected that the foreign population, and its share in the total Finnish population, is still low. In 1985, only 16,500 foreigners lived permanently in Finland (0.3% of the total Finnish population). By 1990, their number had increased to almost 26,300 (0.5% of the population), and in December 2002 to 103,700 (2.0% of the population). Although the number of foreign nationals more than quadrupled since the early 1990s, Finland accounts for the lowest percentage of foreigners in the EU

area. Russians form the largest immigrant group (23%) followed by Estonians (12%) and Swedes (8%).

Figure 6.6 Migration to and from Finland, 1985 – 2001



Source: Statistics Finland

The labour market experience of foreign labour was minor still in the early 1990s, simply because there were virtually no foreign workers. With the rapid growth of immigrants in the 1990s, the situation of foreigners in the Finnish labour market also started to become evident. The most striking feature when it comes to the labour market status of foreign labour is a low employment rate and a high unemployment rate (Table 6.3). Indeed, the unemployment rate of foreign labour is approximately three times higher than that of Finns. The unemployment rate has declined in both categories but at a clearly slower pace among foreigners.

Table 6.3 Relative position of foreigners in the Finnish labour force, 1991 – 2000

	%-share of foreigners in			Unemployment rate among	
	labour force	employed	unemployed	foreigners	whole population
1991	0.66	0.53	2.42	24.4	12.2
1992	0.76	0.49	2.81	43.3	18.0
1993	0.88	0.51	2.75	51.3	22.2
1994	0.99	0.56	3.15	52.8	20.6
1995	1.09	0.65	3.46	49.1	19.9
1996	1.19	0.73	3.92	47.9	19.5
1997	1.34	0.87	4.56	43.2	16.6
1998	1.44	0.99	4.94	39.1	14.9
1999	1.49	1.05	5.34	36.6	14.0
2000	1.57	1.19	5.11	31.8	12.5

Source: Statistics Finland

A major factor having contributed to the declining trend in the unemployment rate of foreigners is a gradual change in immigrant profiles. It is, in fact, only in the last few years that the number of immigrants coming to Finland specifically to work has started to increase rapidly. In previous years the majority settled in Finland as refugees, students or returnees from the territory of the former Soviet Union.[70]

There are, however, huge differences in employment and unemployment rates between immigrants depending on the country of origin.[71] These differences are further strengthened by differences in skill levels. Compared to the EU average, non-EU nationals face a rather disadvantaged position in the Finnish labour market (Table 6.4).

Table 6.4 Employment rates (%) for foreign nationals by skill level, 2001

	Finland	EU average
High skilled (tertiary education):		
EU nationals	**86**	83
- non-EU nationals	**59**	66
Low skilled (less than upper secondary education):		
- EU nationals	**50**	49
- non-EU nationals	**38**	45

Source: Reproduced from http://www.eiro.eurofound.eu.int/2003/03/Feature/FI0303204F.htlm

It is argued that ethnic discrimination can be held at least partly responsible for especially low-skilled immigrants being jobless in Finland. Intimately linked to this is the tendency for certain low-paid jobs to be increasingly occupied by immigrants[72], often on an atypical basis, albeit no industry in Finland has so far gained a reputation for offering mainly "immigrant work". Apart from ethnic discrimination, more attention is also being paid to the risk of social dumping of foreign labour. Of particular concern is the growing problem of illegal immigrant labour, although this remains a marginal phenomenon in Finland when compared to the situation in many other EU countries.

At the same time as employers are being accused for ethnic discrimination and backward attitudes, they are reported to support actions to promote work-related immigration in Finland, particularly from non-EU countries. The situation is less paradoxical than it may seem. This support for work-related immigration stems from concerns about the threat of labour shortages in a few years' time when major age groups retire. An urgent challenge for Finnish industry, therefore, is to secure specialists by flexible hiring especially from countries outside Europe. Labour recruitment from outside the European Economic Area is, however, in Finland regulated through work permit procedures, albeit several groups of foreigners are exempt from these procedures.[73] Not surprisingly, companies find the present work permit system too bureaucratic, with too long processing times and too short permits.

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[70] An in-depth analysis of immigrants arriving in Finland over the period 1989 – 1993 is provided by Forsander (2002).

[71] See e.g. Artto (2002) and the references therein.

[72] In the Helsinki Metropolitan Area, for instance, one-fifth of bus drivers and of the labour force employed by large cleaning firms are immigrants (Artto 2002, Forsander 2002).

[73] For a brief outline of the work permit procedures currently in force in Finland, see e.g. the EIRO web site at http://www.eiro.eurofound.eu.int/2003/03/Feature/FI0303204F.html

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Artto, J. (2002), *Ethnic discrimination partly responsible: One third of immigrants in Finland jobless.* http://www.artto.kaapeli.fi/unions/T2002/f29

Forsander, A. (2002), *Conditions of trust: immigrants in the 1990's Finnish labour market*. PhD thesis, Turku University. (in Finnish)

Industry employers want to speed up work-related immigration. http://www.eiro.eurofound.eu.int/2003/03/Feature/FI0303204F.html

7. WORKING TIME DEVELOPMENTS AND FLEXIBILITY

Working time arrangements have traditionally been a fundamental issue in industrial relations in Finland. This is reflected in the efforts put into working time legislation, as well as in the high status of working time issues in collective bargaining. Especially in the 1990s, working time adjustments became a major tool for achieving greater flexibility in the Finnish labour market in order to meet market needs. Both the Finnish bargaining system, albeit heavily centralised, and the current Working Hours Act allow local agreements on flexible working time arrangements "tailored" to individual workplaces.[74] Indeed, because of the increased use of local agreements on working time, the national-level social partners agreed in spring 2002 to issue a joint statement on good working time practices. The statement maintains that flexible working hours should be arranged to meet not only the requirements of markets and customers, but also of individual employees.[75]

This chapter provides a brief overview of working time developments in Finland, contrasts the prevailing working time patterns with those in other European countries, and points to commonly used working time re-arrangements in response to economic upturns and downturns, including so-called working time accounts.

7.1 Average working hours

The average number of annual hours worked has diminished continuously ever since the implementation of the eight-hour working day, which was laid down by law in 1917 (Figure 7.1). The length of the working week was reduced to 45 hours in the late 1950s, to 40 hours in the 1960s, and in the 1980s gradually to 37,5 hours for all employee categories.[76] Simultaneously, there has been an increase in the paid annual leave that the employees are entitled to. The total number of days of annual leave increased to 12–24 days in 1946, 18–24 days in 1959 and, in several stages, to 24–30 days in the period 1972 to 1983. In addition, various days have been listed as national paid public holidays (e.g. Epiphany and Ascension Day).

Compared to other industrialised countries, the average number of working hours per year is rather low and correlates strongly with the total paid annual leave (Table 7.1). Indeed, IMD interprets this low number as a weakness of Finnish competitiveness. In the *World Competitiveness Yearbook 2002*, the average of 1,723 hours worked per annum in 2000 ranked Finland 43 out of 49.

Based on annual working hours, Finland thus stands out as a country with short working times. This picture, however, changes radically when focusing on average weekly instead of average annual working hours. If measured by means of average collectively agreed weekly hours, Finland climbs as high as second among the EU-15 plus Norway countries (Table 7.1). The average collectively agreed normal weekly hours for full-time workers

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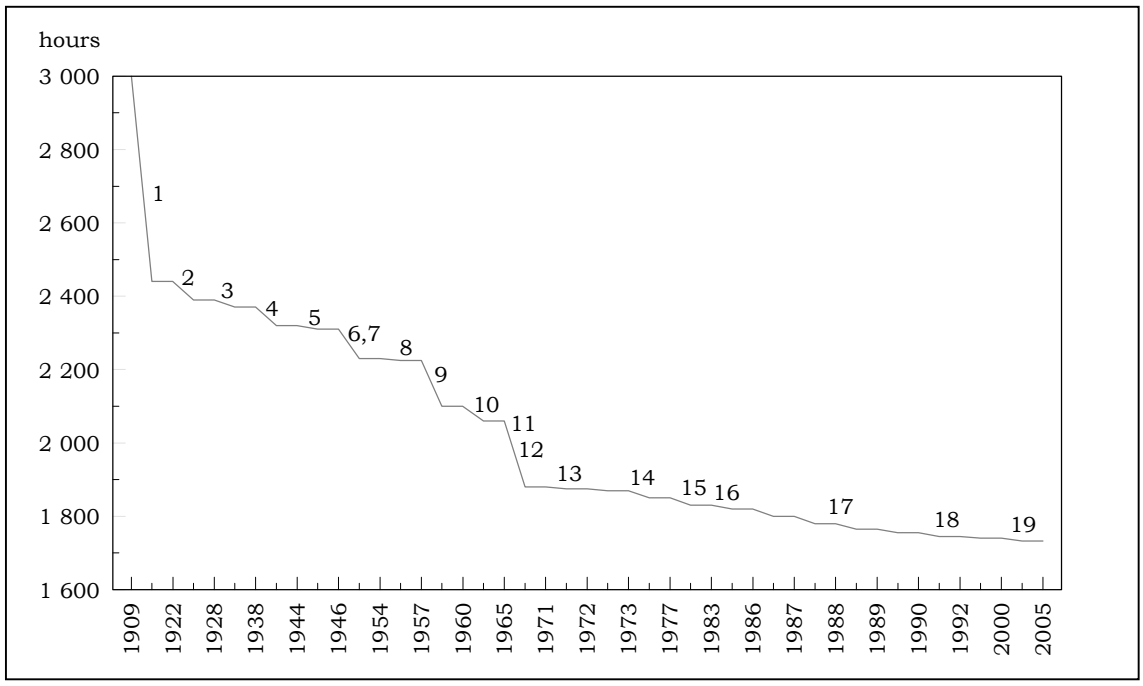
[74] See Sections 4.2 (Working Hours Act) and 5.5 (Collective bargaining) above, and also the EIRO web site at http://www.eiro.eurofound.eu.int/1998/03/feature/FI9803153F.html.

[75] See the EIRO web site at http://www.eiro.eurofound.eu.int/2002/05/InBrief/ FI0205101N.html.

[76] The regular annual working time of Finnish manufacturing workers has shortened by more than 500 hours over the past 50 years.

(39.3) are, moreover, very close to the statutory maximum (40), which might be interpreted as the working time law playing a more active role in Finland than in many other EU countries. On the other hand, the Working Hours Act does allow longer weekly working hours provided that the average over given reference periods does not exceed the statutory maximum. Similar flexibility governs the statutory working day of eight hours, one of the shortest in the EU. An illustrative example of the degree of flexibility built into working time schemes is that both daily and weekly hours may be varied over a 52-week reference period, if an average 40-hour week is maintained.

Figure 7.1 Evolution of average number of working hours per year



Explanations: *1* = eight-hour working day; *2* = 4 – 7 days of annual holiday; *3* = Independence Day public holiday; *4* = 5 – 12 days of annual holiday; *5* = May Day public holiday; *6* = 12 – 24 days of annual holiday; *7* = regular working time 47 hours per week; *8* = All Saints' Day and Midsummer Day moved to Saturday; *9* = regular working time 45 hours per week; *10* = 18 – 24 days of annual holiday; *11* = Christmas Eve, Holy Saturday and Midsummer Eve public holidays; *12* = regular working time gradually down to 40 hours per week over the years 1966 – 1970; Saturday becomes working day in weeks with a workday being a holy day; *13* = Saturdays of weeks with a working day being a holy day are gradually turned into public holidays in 1971 – 1979; *14* = 24 – 26 days of annual holiday; *15* = 24 – 28 days of annual holiday; *16* = 24 – 30 days of annual holiday; *17* = gradual shortening of the regular working time; *18* = Epiphany public holiday; *19* = Saturday of Ascension Day week public holiday.

Source: ETLA

When turning the focus from agreed to usual weekly working hours, Finland again ranks rather low among European countries; now to position 10 out of 16. This is due to average actual working hours being identical to average collectively agreed hours, which is also to be expected in view of the "smoothing rule" referred to above and the fact that both measures include overtime hours. In the other European countries, usual hours are persistently higher than the agreed ones.

Table 7.1 Finnish working time from a European perspective

	Average collectively agreed normal annual working time (2002) (1)	Average number of days of collectively agreed annual paid leave (2001) (2)	Average collectively agreed normal weekly hours for full-timers (2002) (3)	Average usual weekly hours worked for full-timers (2002) (4)	(4) – (3)
Finland	**1,752.8 (4)**	**25**	**39.3 (2)**	**39.3 (10)**	**0.0**
Austria	1,709.4 (9)	25	38.5 (9)	40.1 (5)	+1.6
Belgium	1,794.0 (3)	n.a.	39.0 (5)	38.5 (15)	-0.5
Denmark	1,639.1 (14)	29	37.0 (15)	39.3 (11)	+2.3
Germany	1,661.8 (13)	29.1	37.7 (11)	40.1 (6)	+2.4
Greece	1,808.0 (1)	23	40.0 (1)	40.9 (2)	+1.9
France	1,599.4 (16)	25	35.7 (16)	38.9 (13)	+3.2
Ireland	1,801.8 (2)	20	39.0 (4)	39.9 (8)	+0.9
Italy	1,672.0 (12)	28	38.0 (10)	38.6 (14)	+0.6
Luxembourg	1,731.6 (8)	28	39.0 (3)	39.8 (9)	+0.8
Netherlands	1,633.2 (15)	31.3	37.0 (14)	39.0 (12)	+2.0
Norway	1,687.5 (10)	25	37.5 (12)	38.5 (16)	+1.0
Portugal	1,735.5 (6)	24.5	39.0 (6)	40.3 (4)	+1.3
Spain	1,732.5 (7)	n.a.	38.5 (8)	40.6 (3)	+2.1
Sweden	1,738.2 (5)	25	38.8 (7)	40.0 (7)	+1.2
UK	1,685.2 (11)	24.5	37.2 (13)	43.6 (1)	+6.4
Average	1,710.6	25.9	38.2	39.8	+1.7

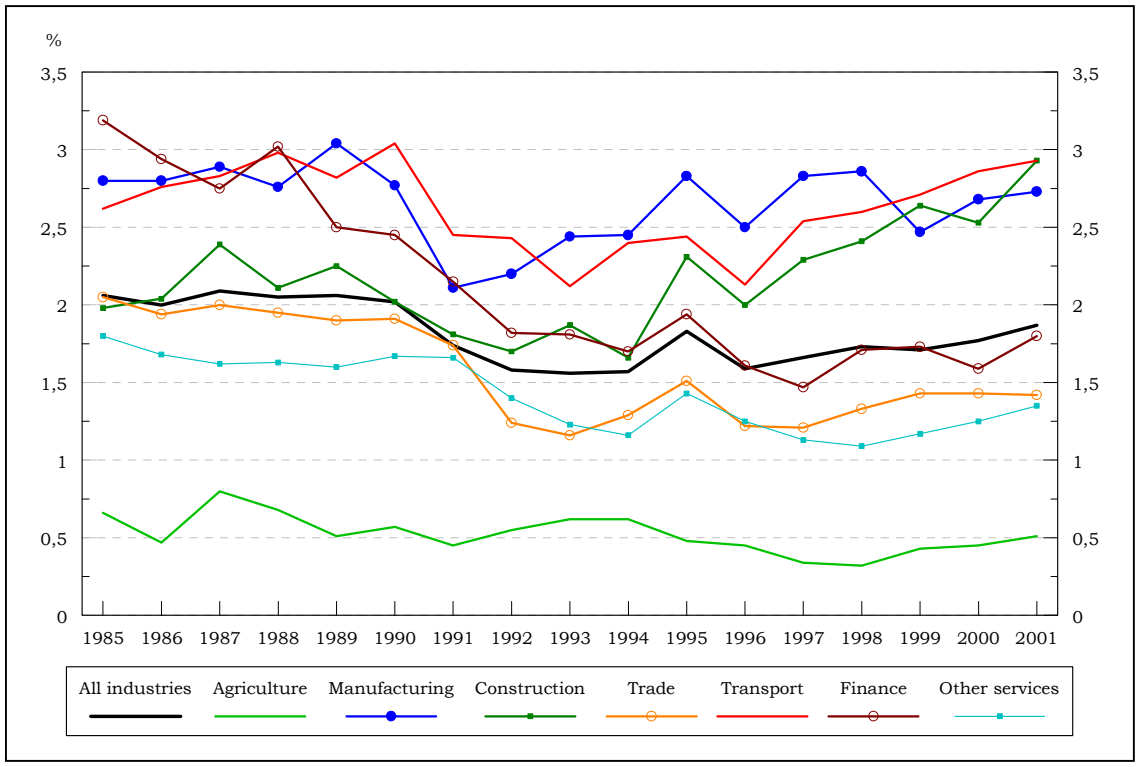
Source: Working time developments – 2002 (The countries' respective ranking numbers are added in parentheses.)

7.2 Overtime

Overtime represents a crucial way of stretching the working day in order to respond to temporary increases in demand. The use of overtime is, however, strictly regulated by law, as is also the compensation to be paid for these extra working hours (see Section 4.2 above).

Of all hours worked in 2001, close to two per cent were paid overtime. The overall trend points to a steady increase in overtime frequency over the post-recession period (Figure 7.2). Nonetheless, the relative share of overtime hours was still in 2001 clearly below the overtime load of the boom years in the late 1980s. The figure also reveals that there is considerable variation across industries in paid overtime. Overtime is heavily concentrated in manufacturing, construction and transport. But while the relative share of overtime in total hours worked is only approaching pre-recession levels in manufacturing and transport, in construction it has for some years outperformed these boom-year levels.

Figure 7.2 Relative share of paid overtime hours in total hours worked, 1985 – 2001



Note: Breaks in the series in 1988/89 and 1999/2000.
Source: Statistics Finland

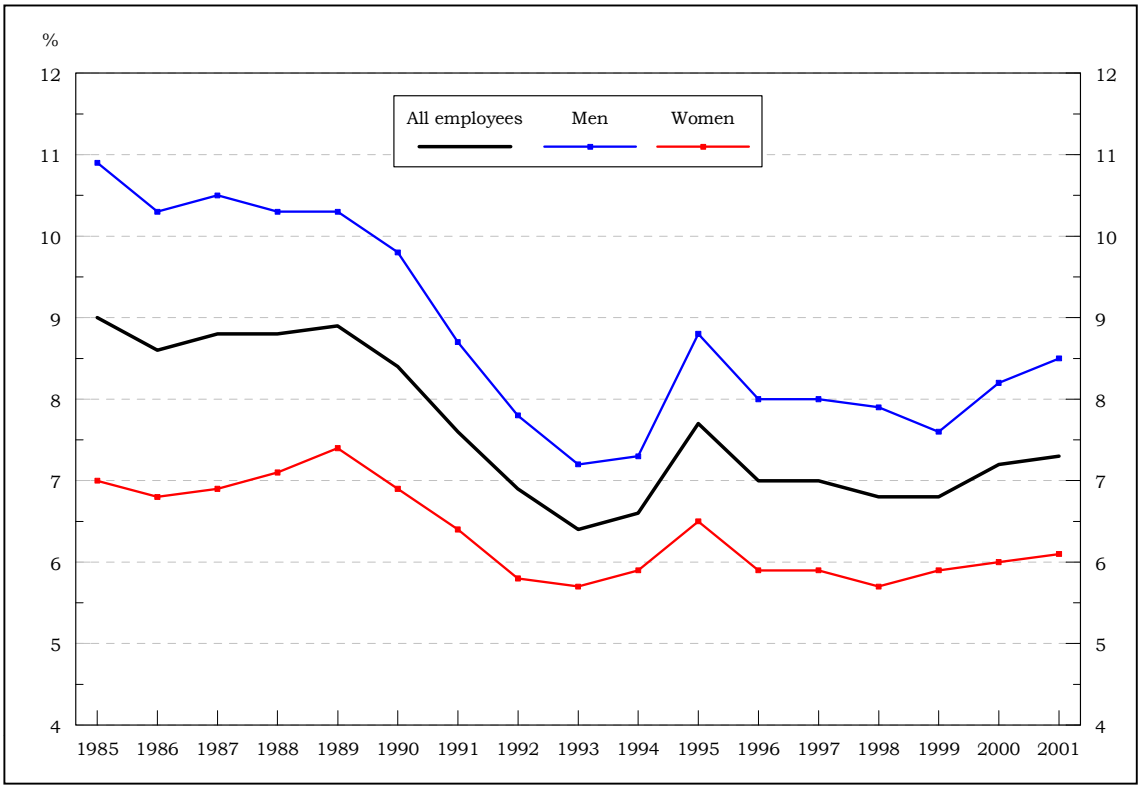
The overtime load in manufacturing is recorded to be slightly higher – since the mid 90s between 3.5 and 4% of total hours worked – according to data compiled by the Confederation of Finnish Industry and Employers. A possible explanation for this divergence from official statistics is that the member firms of the Confederation represent mainly medium-sized and large companies, covering some 75% of the whole manufacturing sector. Additionally, the Confederation's numbers include not only legal overtime, but also additional hours compensated for as if they were performed as overtime. In 2000, some 63% worked overtime, the average number of hours being 82. When distributed over all manufacturing workers, the number of paid overtime hours drops to an average of 52.

A closer look at the different manufacturing industries reveals that overtime is most frequent in the chemical industry (5.2% of total hours worked in 2000). Overtime shares exceeding the manufacturing average are also found in the paper and wood industries (over 4% of total hours worked in 2000), while overtime is least frequent in the textile industry (1.5% of total hours worked in 2000).

Overtime is more frequent among men than women. For 2001, 8.5% of male employees and 6.1% of female employees were recorded to have worked overtime for which they had been reimbursed (Figure 7.3). Moreover, the gender gap in overtime frequency narrowed considerably in the deep recession years of the early 1990s, and has remained roughly unchanged ever since, albeit the trend seems to point to a re-widening of the gap due to a stronger increase in male overtime in recent years. Overtime being more frequent among male than female employees is also reported in a recent study of Finnish manufacturing (Böckerman 2002). The study also points to substantial differences in overtime depending on the worker's

age, tenure and wage level. Also the size and the female-dominance of the employing company are shown to exert a significant influence on the frequency of paid overtime.

Figure 7.3 Relative share (%) of all employees with paid overtime, and separately by gender, 1985 – 2001



Source: Statistics Finland

The overtime statistics displayed above refer to paid overtime. All overtime worked is not paid for, though. Unpaid overtime is especially frequent among white-collar workers and, moreover, correlates positively with the person's hierarchical position. This rather unsatisfactory situation has led a growing number of both private and public sector employers to create, on a voluntary basis, so-called working time accounts. Through these arrangements overtime hours may be saved and taken at a later date in the form of time off. The way these working time accounts are structured varies considerably among workplaces. So far no general agreement has been reached on common rules, although the working time accounts have been discussed in relation to national incomes policy agreements ever since the 1970s.

Table 7.2 Share of the employed having worked paid or unpaid overtime, 1993 – 2002, %

Worked overtime:	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
- paid	21	25	22	22	26	22	27	27	26	22
- compensated with time off	19	21	21	23	23	23	25	25	25	22
- uncompensated	19	17	16	17	17	17	18	15	13	14

Source: Ylöstalo (2003)

Based on annual working hours, Finland thus stands out as a country with short working times. This picture, however, changes radically when focusing on average weekly instead of average annual working hours. If measured by means of average collectively agreed weekly hours, Finland climbs as high as second among the EU-15 plus Norway countries (Table 7.1). The average collectively agreed normal weekly hours for full-time workers (39.3) are, moreover, very close to the statutory maximum (40), which might be interpreted as the working time law playing a more active role in Finland than in many other EU countries. On the other hand, the Working Hours Act does allow longer weekly working hours provided that the average over given reference periods does not exceed the statutory maximum. Similar flexibility governs the statutory working day of eight hours, one of the shortest in the EU. An illustrative example of the degree of flexibility built into working time schemes is that both daily and weekly hours may be varied over a 52-week reference period, if an average 40-hour week is maintained.

7.3 Unsocial hours and reduced working hours

Unsocial hours refer to night work, Sunday work, and shift work. The Working Hours Act sets the legislative limits for working unsocial hours but provides, nevertheless, for relatively flexible possibilities to regulate these working time arrangements in collective agreements.

National-level statistics on the use of different working time schemes in the Finnish labour market are scarce. Table 7.3 shows the relative frequency of key working time arrangements for 1984, 1990 and 1997. The table reveals a steady decline in the relative share of regular daytime work, but only marginal differences across genders.

As noted in Section 4.1, the Employment Contracts Act entitles the employer to reduce an employee's regular working hours prescribed by law or contract to the extent necessary in view of the grounds for laying off the employee. In practice, this can take the form of reduced working days or reduced working weeks. For instance, shift work extended over the entire week might be limited to Monday to Friday, thereby leaving out more expensive weekend hours, or three-shift-work might be cut down to two-shift-work.

Table 7.3 Relative frequency of different working time arrangements in 1984, 1990 and 1997, all employees and by gender, %

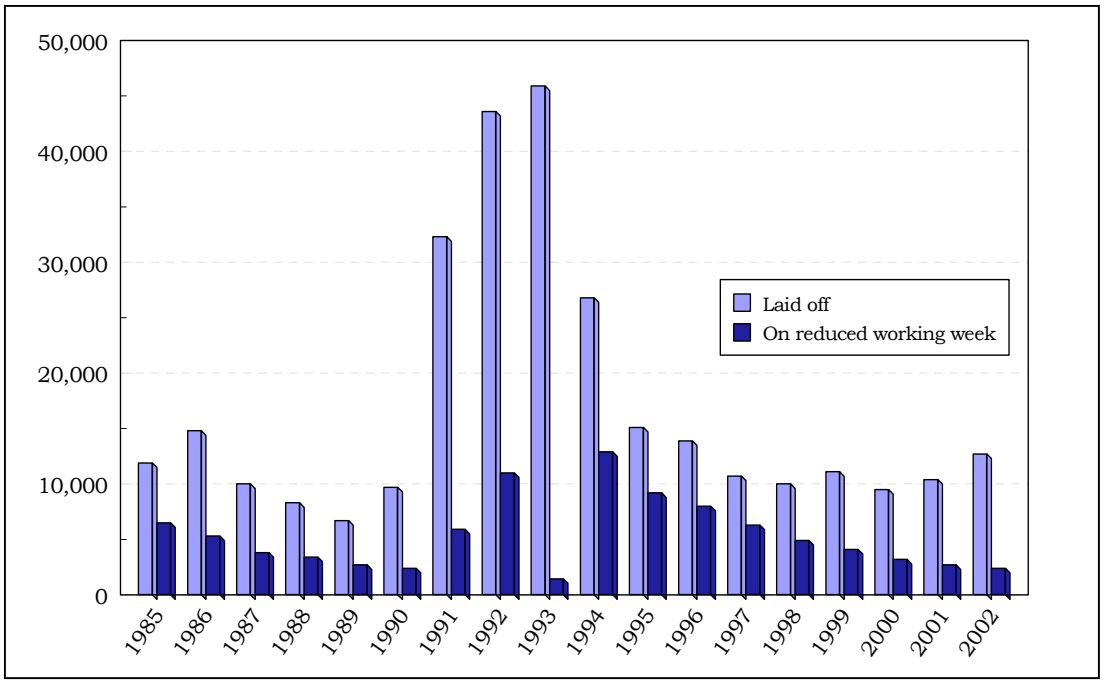
	All employees			Male employees			Female employees		
Working time scheme:	1984	1990	1997	1984	1990	1997	1984	1990	1997
Regular daytime work	76	74	70	75	73	69	77	75	71
Two-shift-work	10	9	10	11	10	11	9	8	9
Three-shift-work	6	5	7	6	4	7	7	6	7
Regular evening or night work	3	2	2	4	3	3	1	1	1
Other working time	5	10	11	4	10	10	6	10	12
Total	100	100	100	100	100	100	100	100	100

Source: Lehto & Sutela (1999)

The use of reductions in regular working hours has, however, persistently been much less common than the use of layoffs when looking at the absolute number of individuals in the Finnish labour market hit by these measures in the period 1985 to 2002 (Figure 7.4). The situation varies considerably by sector and industry. In manufacturing, some 0.7% of the workforce was laid off and another 0.7% worked reduced hours in 2002. This corresponds to a total of 7,000 persons. The share of the manufacturing workforce working reduced hours has ever since 1994 been, at most, around 1% but has, nevertheless, mostly exceeded the share of manufacturing workers being laid off. The share in the manufacturing workforce working reduced hours was considerably higher in 1993 (over 3%) and especially in 1992 (almost 8%), while the share of those laid off stayed at almost 3.5% in those two deep recession years.

A comparison of the situation in the different manufacturing industries in 2002, finally, reveals that most industries make use of reduced working hours but the extent to which this flexibility tool is implemented varies a lot. Reduced working hours stand out as a more common measure than layoffs particularly in the textile, basic metal and graphical industries. The use of reduced working hours is much less common in construction and services than in manufacturing, which is also to be expected in view of production-related shiftwork being heavily concentrated in the manufacturing sector.

Figure 7.4 Total number of persons laid off and on reduced working week, 1985 – 2002



Source: *Finnish Labour Review* 1/2003

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8. FLEXIBLE FORMS OF WORK

Full-time, regular, and open-ended employment has traditionally dominated the Finnish labour market. These conventional job contracts have, however, steadily given way to part-time and, especially, to fixed-term employment. This development was fuelled by the economic crises in the early 1990s when companies were seeking for increased flexibility to be able to better respond to fluctuations in the business environment. The share of workplaces recruiting new personnel on a non-permanent basis has varied between 26 and 34% since the mid 90s, compared to only 10% in 1993 (Ylöstalo 2003). The corresponding share of workplaces offering permanent employment has persistently been more than 10 percentage points lower.

Flexible forms of work have commonly been argued to be important job-creating tools in solving the long-lasting unemployment problem of the Finnish economy; that is, non-permanent employment is seen as providing stepping-stones into open-ended employment by improving the employability of unemployed people.[77] It has, however, also been argued that the implementation of these so-called atypical modes of employment has resulted in a clear segmentation of the Finnish labour force into those having a permanent job and those being more or less constantly employed on a flexible basis (Parjanne 1997).

This chapter discusses two main forms of atypical employment, that is, part-time jobs and temporary jobs (fixed-term contracts and temporary agency work). Finally, the emerging role of teleworking is briefly commented on.

8.1 Part-time work

At the whole-economy level, part-time employment makes up a relatively small share of total employment (10.5% in 2001 according to OECD statistics[78]). Moreover, the part-time share has increased only slowly over the past few decades (Table 8.1). This holds for both male and female employees. The female dominance in part-time jobs is still outstanding with roughly two out of three part-timers being women.

Part-time work is considerably less common in Finland than in most other European countries (Table 8.2). Nevertheless, when it comes to its distribution by gender and sector, the same patterns are repeated across Europe irrespective of the overall frequency of part-time employment; part-time jobs are much more common among women and in the services sector – due to its female dominance – also in Finland. Finnish part-time workers do not differ from average European part-timers with respect to average usual hours worked per week.

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[77] See further e.g. the EIRO web site at http://www.eiro.eurofound.eu.int/2002/12/study/ TN0202101S.htlm.

[78] National official statistics report a slightly higher part-time share, or 12.2% for 2001. This number reflects the share of employees describing themselves as part-time workers. This national series is the one published also in the European Commission's Employment in Europe report. Eurostat's Labour Force Surveys, finally, report slightly lower shares: 12.0% for 2001.

Table 8.1 Incidence and composition of part-time employment, 1985 – 2001

	As a proportion of employment, %			Gender composition, %	
	All	Men	Women	Men	Women
1985	8.3	4.7	12.3	28.9	71.1
1986	8.1	5.0	11.6	31.8	68.7
1987	8.1	4.8	11.6	31.1	68.9
1988	7.4	4.5	10.5	31.6	68.4
1989	7.8	5.0	10.7	33.9	66.1
1990	7.5	4.7	10.6	32.8	67.2
1991	7.9	5.4	10.6	35.1	64.9
1992	8.1	5.8	10.6	36.4	64.2
1993	8.9	6.4	11.5	37.0	63.0
1994	8.9	6.5	11.5	37.2	62.8
1995	8.6	5.9	11.5	35.8	64.2
1996	8.4	5.7	11.3	35.6	64.4
1997	9.4	6.5	12.5	36.6	63.4
1998	9.6	6.7	13.0	36.6	63.8
1999	9.9	6.6	13.5	35.1	64.9
2000	10.4	7.1	13.9	36.3	63.8
2001	10.5	7.3	14.0	36.6	63.4

Source: OECD, Labour Force Statistics

Two features of Finnish part-time employment deserve particular attention in this context. First, part-time employment in Finland is not only rather uncommon, but often also involuntary. Second, the slow but steadily increasing trend in part-time employment, especially over the past few years, is largely a consequence of the rapidly growing popularity of part-time retirement arrangements.

There are highly divergent reasons for working part-time. However, for two-thirds of the part-timers the explanation relates either to studies or because a full-time job could not be found (Table 8.3). Unsurprisingly, studies stand out as a major explanation in the youngest age groups[79], while involuntary part-time working increases with age among both men and women. Among those aged 30 to 49, involuntary part-time work is most frequent; about one-half of both male and female part-timers would have preferred a full-time job. The share of part-timers that explicitly declare that they do not want a full-time job is only about 10% among women and is even less (6.2%) among men.

Table 8.2 Finnish part-time working from a European perspective, 2001

[79] According to a Ministry of Education study (Nyyssölä 1999), part-time work amongst Finnish young adults is significantly more common than indicated by the OECD average. Of those aged 16–29, 53% of females and 34% of males worked part-time, mainly for reasons relating to education, whereas the corresponding OECD averages were 34% and 24%, respectively.

Country	All, % of total employment	Women, % of female employment	% of all part-timers employed in industry	% of all part-timers employed in services	All, average usual hours worked per week
Finland	**12.0**	**16.7**	**27.1**	**67.1**	**20.6**
Austria	17.2	33.6	29.4	64.8	22.0
Belgium	18.2	36.6	25.5	73.1	22.2
Denmark	20.1	31.6	25.4	71.1	20.1
Germany	20.3	39.3	32.8	64.6	18.0
Greece	4.1	7.2	22.8	61.2	21.4
France	16.4	30.4	26.0	69.9	23.3
Ireland	16.6	31.1	29.1	63.9	18.8
Italy	9.1	17.8	31.7	63.1	23.6
Luxembourg	11.3	25.6	21.4	77.0	20.8
Netherlands	42.2	71.3	21.6	75.3	19.0
Norway	26.0	42.7	21.8	74.2	21.9
Portugal	11.1	16.5	34.0	53.0	19.9
Spain	8.1	17.3	31.6	61.9	18.2
Sweden	22.8	36.3	24.4	72.7	22.8
Switzerland	31.8	57.2	25.0	70.6	20.2
UK	24.8	44.4	24.9	73.7	18.8
Average	18.4	32.7	26.7	68.1	20.7

Source: Eurostat Labour Force Survey – Principal results 2001.

Table 8.3 also shows that pension arrangements are a major explanation for working part-time in the oldest age group.[80] This explanation is given by no less than two-thirds of the male part-timers aged 50 to 64.

All in all, part-time employment has not been adopted as a flexible mode of employment to the same extent as in most other European countries, albeit its use varies considerably across Finnish industries and sectors with wholesale and retail trade and public services offering almost 60% of all part-time jobs. This overall impression is further supported by the fact that among both men and women, only one out of three part-time jobs is of a fixed-term nature.

One reason for the rather modest implementation of part-time working in Finnish working life might be the traditionally strong preference for full-time jobs among both men and women. Indeed, Finnish women have long traditions of working outside home. This tendency has been further strengthened by high education attainment levels also among women in combination with a day-care system that enables and income taxation rates that virtually necessitate that both parents work full-time.[81] These features may explain why Finland is so egalitarian when it comes to part-time work. The flexibility offered by part-time employment relationships seems to have been a success story only when it comes to the oldest age groups of the Finnish workforce.

Table 8.3 Major reasons for working part-time, 2001, %

[80] In 2001, almost one-quarter of all part-timers were aged 50 to 64 among both men and women.

[81] Finnish couples with children are not especially likely to have a part-time job; in 1996 only 17% of mothers and 5% of fathers in families with two parents had part-time jobs (Stockholm Conference – national report of Finland 1999).

Reasons for working part-time:	Age groups:					
	15 – 64	15 – 19	20 – 24	25 – 29	30 – 49	50 – 64
Men:						
Studies	41.9	77.9	76.3	59.8	8.8	0.2
Ill health	2.5	0.3	0.6	0.8	6.7	3.3
Could not find a full-time job	25.4	13.4	15.6	28.6	52.4	20.1
Child care	1.0	-	0.2	-	4.2	0.4
Pensioner or partly retired	17.6	-	0.2	0.4	7.1	65.3
Did not want a full-time job	6.2	6.2	4.1	3.2	10.1	6.1
Other reason or cannot say	5.3	2.1	3.1	7.3	10.9	4.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Women:						
Studies	29.6	74.7	65.1	38.6	6.9	0.6
Ill health	2.2	0.1	0.3	0.6	2.3	5.4
Could not find a full-time job	35.9	16.6	27.2	40.9	49.2	34.9
Child care	8.6	-	1.7	8.9	21.9	1.2
Pensioner or partly retired	9.4	-	0.1	0.4	1.7	36.8
Did not want a full-time job	10.1	6.9	3.7	7.3	12.2	15.2
Other reason or cannot say	4.3	1.6	2.0	3.4	5.7	5.8
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Statistics Finland

8.2 Fixed-term work

The economic crises of the early 1990s brought about a radical change in the type of job contracts typically offered to new employees. Job contracts of a fixed-term length became increasingly common and their share of all new job contracts was occasionally almost 80%. Still in 2001, approximately two out of three new jobs were of a non-permanent nature.

This tremendous and rapid shift away from permanent job contracts was soon reflected in the overall share of fixed-term work, more strongly among women than men (Table 8.4). In a longer-run perspective (1983 to 2000), the share of fixed-term employment relationships in total dependent employment increased by 6.6%, compared to an EU-15 average increase of 4.3%.[82] Moreover, this increase occurred entirely in the 1990s; throughout the 1980s, the proportion of fixed-term employment relationships remained at roughly 10%.

Table 8.4 Share (%) of fixed-term contracts in total employment, 1990 – 2001

	1990 – 1997	1998	1999	2000	2001
All	18.2	17.4	16.7	16.3	16.4
Men	15.5	14.4	13.8	12.8	12.8
Women	20.9	20.5	19.7	19.7	19.9

Source: European Commission, *Employment in Europe 2002*

Another conspicuous feature is that the relative share of fixed-term work has declined only slowly in the post-recession period despite a marked strengthening of the economy. From having initially been used mainly as a tool for minimising the financial risk inherent in hiring

[82] See the EIRO web site at http://eiro.eurofound.eu.int/2002/02/study/TN0202101S.htlm.

new people in times of economic uncertainty, fixed-term contracts seem to have remained an appealing choice in particular sectors, at least. Still in 2001, one in four public-sector employee was employed on a fixed-term basis, compared to only one in ten in the private sector. Fixed-term employment relationships are most common in the educational, health and social care fields[83], albeit fixed-term contracts have increased in relative importance in all occupational categories. The difference in fixed-term work between men and women is minor within the public sector (21.4% versus 24.1% in 2001), but notable in the private sector (11.1% versus 16.7% in 2001). The considerably higher incidence of fixed-term work among private-sector women than men, coupled with an even higher overall incidence in the female-dominated public sector, explains the outstanding concentration of fixed-term work in the female workforce. In 2001, some 60% of all fixed-term employees were women.

Compared to most other European countries, fixed-term employment relationships are very common in Finland (Table 8.5). Still in 2001, the frequency of fixed-term job contracts exceeded the EU average for men and even more so for women, albeit the difference with the European leader – Spain – is notable. Moreover, the correlation between the occurrence of fixed-term work and the prevailing unemployment rate seems to have strengthened over time within the EU area.[84] Whether this is a "true" correlation or merely an indication of some underlying phenomenon remains an open question.

Table 8.5 Finnish fixed-term work in a European perspective, 1990 and 2001

	All, % of total employment		Men, % of male employment		Women, % of female employment	
	1990	2001	1990	2001	1990	2001
Finland	**18.2**	**16.4**	**15.5**	**12.8**	**20.9**	**19.9**
Austria	8.0	8.1	8.1	7.1	7.9	9.4
Belgium	5.3	9.0	3.1	6.4	8.8	12.4
Denmark	10.6	9.2	10.5	7.7	10.8	10.7
Germany (-91)	10.2	12.4	9.5	12.2	11.0	12.7
Greece	15.0	12.6	15.6	10.9	13.9	15.0
France	10.4	14.9	9.1	13.6	12.0	15.3
Ireland	8.5	3.7	6.6	3.0	11.5	4.6
Italy	7.1	9.8	5.9	8.3	9.4	11.9
Luxembourg	3.3	5.8	2.5	5.2	4.6	6.6
Netherlands	7.6	14.3	6.0	11.9	10.3	17.4
Portugal	16.1	20.6	14.3	18.8	18.5	22.8
Spain	30.3	31.7	28.0	30.0	35.2	34.2
Sweden	8.3	13.5	5.9	11.0	10.7	16.0
UK (-94)	7.0	6.8	6.0	6.0	8.0	7.6
Average	n.a.	13.4	n.a.	12.4	n.a.	14.6

Source: European Commission, *Employment in Europe 2002*

As in the case of permanent work, most of the fixed-term work is done on a full-time basis, albeit part-time work is clearly more frequent in fixed-term than in continuous open-ended employment relationships. In 2001, the relative share of part-timers was almost 28%

[83] For example, less than 70% of the personnel in the health and social care fields in the municipalities are permanently employed (Stakes 2002). Of the newly recruited nurses over 90% are hired on a temporary basis.

[84] The simple correlation between fixed-term contracts and the unemployment rate across the EU countries is 0.4 for 1990 and 0.5 for 2001.

among females with a fixed-term work but only a half of that, or some 14%, among females with a permanent work. The corresponding shares for men were 5.5% and 18%, respectively. In other words, the combination of part-time and fixed-term work is much more common among women than men.

It is also worth noting that while fixed-term work is more frequent in the public sector, it is done more often on a part-time basis in the private sector. Of all women having fixed-term work in 2001, some 36% worked part-time in the private sector compared to 20% in the public sector. The part-time difference is much smaller among fixed-term working men; 22% in the private sector compared to 17% in the public sector.

Approximately three out of four fixed-term employees are aged 20 to 49. For both genders, the age distribution of those in fixed-term work peaks twice, first in the age group 20 – 24 and next in the age group 30 – 49. But while the two peaks are of much the same height for fixed-term male employees, the latter peak dominates for fixed-term female employees. In other words, fixed-term work is no longer clearly associated with youth and the beginning of a working career. These observations should, however, not be interpreted as fixed-term work being most common among 30 – 49 year-old women. Contrasting these age distributions with the age distribution in total employment reveals that the "relative risk" of working on a fixed-term basis continues to be highest among young employees and is, indeed, one of the highest among OECD countries (OECD 2002).

As with part-time work, fixed-term employment is usually involuntary (Table 8.6). Of all men working on a fixed-term basis in 2001, 61% could not find a permanent job, while the corresponding share for women was even higher, or 71%. Moreover, the difficulty of finding a permanent job stands out as a reason that grows dramatically in importance with the age of the employee. The age effect works in the opposite direction for the other two major reasons for taking up fixed-term work, simply because both relate to the person studying.

Fixed-term work is not only more common and more often involuntary among female than male employees. In addition, male and female fixed-term employees tend to differ also with respect to key background characteristics (Lehto & Sutela 1999). This also explains the marked gender differences in fixed-term employment between the private and public sector that were briefly noted above. In particular, a higher education and more work experience do not necessarily reduce the propensity of females to be hired on a fixed-term basis. Indeed, highly educated women with a work career of over ten years make up an increasing number of those in fixed-term work. For instance, the incidence of fixed-term work among female employees with a tertiary-level education increased from 21% in 1990 to 27% in 1997 (one in four), which significantly exceeds the corresponding rate among female employees with a lower education. Compared to this, tertiary-level educated male employees experienced an increase in fixed-term work from 9% in 1990 to 10% in 1997 (one in ten), with the corresponding rate being notably higher among less well educated male employees. A higher education, thus, reduces the probability of a male employee of working on a fixed-term contract, but appears to have the opposite effect on female employees. Obviously, one major explanation for this rather paradoxical situation is the high overall incidence of fixed-term employment in the female-dominated and fairly high-

skilled public sector. Further support for this contention is due to female upper clerical workers facing the highest incidence of fixed-term employment.[85]

Table 8.6 Fixed-term employees by gender, age and major reason for fixed-term employment, 2001, %

	Age groups:					
	15 – 64	15 – 19	20 – 24	25 – 29	30 – 49	50 – 64
Men						
Overall age distribution:	100.0	16.1	28.0	19.5	28.0	8.5
Reasons for fixed-term work:	100.0	100.0	100.0	100.0	100.0	100.0
Part of the education	8.4	10.4	14.4	8.9	4.9	1.6
Could not find a permanent job	61.3	27.4	43.7	69.6	79.3	79.8
Did not want a permanent job	25.5	60.9	36.3	17.2	9.9	13.7
Trial period	3.7	1.0	4.9	3.5	4.5	2.2
Cannot say	1.1	0.3	0.6	0.9	1.2	2.7
Women						
Overall age distribution:	100.0	10.8	20.1	16.2	41.7	11.3
Reasons for fixed-term work:	100.0	100.0	100.0	100.0	100.0	100.0
Part of the education	5.3	8.3	8.7	5.3	3.7	1.8
Could not find a permanent job	70.7	31.9	53.2	74.6	83.6	85.9
Did not want a permanent job	21.8	58.2	35.9	17.8	10.0	10.9
Trial period	1.7	1.4	2.0	1.7	1.8	0.9
Cannot say	0.6	0.2	0.3	0.5	0.9	0.4

Source: Statistics Finland

Finally, the fact that most fixed-term employees work on a fixed-term basis involuntarily rather than by choice is likely to explain much of the stressfulness that these people experience; women more than men, and older more than younger people. Despite legal regulations, in practice, fixed-term contracts often also weaken the individuals' access to various workplace benefits such as education and training, health care and various bonus and profit-sharing systems.[86] Prolonged fixed-term employment can, thus, be expected to cause aggravating stress and exert a damaging influence on the employee's commitment, self-esteem and perseverance, as well as on his/her work experience and competence building. Simultaneously, surveys reveal that the prevalence of fixed-term work among employees with a job history of at least a decade doubled between 1984 and 1997, and that repeated fixed-term employment is more prevalent among female employees. Last, but not least, early careers consisting of short spells of fixed-term work, part-time work and unemployment seem to have become more of a norm than an exception.

[85] See further e.g. Lehto & Sutela (1999), Kauhanen (2002), Naumanen (2002) and, for a EU-level comparison, Franco & Winqvist (2002).

[86] In 2001, only 27% of fixed-term employees had participated in training during the previous 12 months compared to 50% of permanent employees (Statistics Finland 2002). Measured by the average annual duration of training, fixed-term employees received 4,4 days of training compared to 7,9 days of training for permanent workers. The working life barometer of 2001, in turn, shows that discrimination of temporary workers is clearly more common than discrimination based on sex, age or ethnic background (Ylöstalo 2003). See also the comparative studies reported in OECD (2002) and the EIRO web site at http://www.eiro.eurofound. eu.int/2002/02/study/TN0202101S.htlm.

8.3 Temporary agency work and outsourcing

Temporary agency work was the most rapidly growing form of atypical employment in the EU area over the past decade. Some 6 million are estimated to have been employed by a temporary employment agency in 2000. This also explains the recent attempts of the European-level social partners to impose a directive on working conditions for temporary agency workers.[87]

Also in Finland, the use of temporary agency work has increased markedly in recent years. Simultaneously, the new Employment Contracts Act that came into force in June 2001 clarifies the position of temporary agency workers as regards the applicability of collective agreements to the employment relationships of hired employees.[88] Previous to the new Act the general validity of sectoral collective agreements caused friction not least in the restaurant and hotels sector.[89]

According to information compiled by the Ministry of Labour, some 40,000 were engaged in temporary agency work in 2001. The share of workplaces using temporary agency work was just below 1.5% in 1999 compared to only 0.5% in 1995. In 2001, temporary agency workers were hired by some 10,000 workplaces, which was a little less than in 1999. The total number of temporary agency contracts has also declined slightly, but this is mainly due to longer hiring contracts. Compared to the EU average level of some 2.5% of the workforce representing temporary agency workers, Finland still has some way to go; the corresponding proportion in Finland is estimated at around 1.6%.

The spread statistics available so far further indicate that temporary agency work is heavily concentrated in the services sector and clerical work, which also explains why most agency workers are women[90], but is also becoming more common in certain manufacturing industries. According to member firm statistics published by the Confederation of Finnish Industry and Employers, the use of temporary agency workers in manufacturing was most widespread in basic metal industries, where in 2002 their share was some 1.7% of the member firms' own personnel, compared to an average of 0.6% for manufacturing as a whole.

The types of private temporary employment agencies functioning in Finland vary from one-person enterprises to multinational companies, and the services that they offer range from temporary services to outsourcing. According to Ministry of Labour figures, there are some 200 temporary work agencies in the private sector. Moreover, in recent years the public employment service has also entered the market of temporary agency work, an activity regulated by law since January 1, 2003. In 2001, only about 1,200 temporary agency workers were mediated by the public employment service.

Outsourcing and sub-contracting is notably more common than the use of temporary agency workers. According to member firm statistics for 2002 published by the Confedera-

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87 See e.g. the EIRO web site at http://www.eurofound.eu.int/2002/02/study/ TN0202101S.htlm and the references therein.

88 Briefly, the new Act stipulates that employers of temporary agency workers must adhere to the terms and conditions of the collective agreement that applies to the user company.

89 See e.g. the EURO web site at http://eiro.eurofound.eu.int/1999/11/InBrief/ FI9911126N.html. It may also be noted in this context that the temporary employment agencies have two employers' associations, *viz.* the Private Employment Agencies' Association and the Association of Support Service Industries.

90 A strong female dominance among agency workers also prevails in Denmark and Sweden, while a majority of agency workers are men in the other EU member states. See further Storrie (2002).

tion of Finnish Industry and Employers, the personnel of the sub-contractors was, on average, some 4.3% of the personnel of the manufacturing companies. The highest member firm shares (some 7%) were recorded for machinery and metal products industries and for real estate and cleaning services.

Broadly speaking, the major reasons for the outsourcing of activities divide into those related to cost-saving strategies (e.g. cleaning) and those related to knowledge-intensive services demanding continuous and expensive investment in expertise (e.g. ADP).[91] This also explains why outsourcing is utilised in highly different types of companies. The overall impression mediated by the scarce statistics available on outsourcing is that its use has increased at a steady pace, and still is. Further support for this contention is provided by the working life quality indicators compiled by Statistics Finland. In the period 1993 to 2002, almost consistently nearly 20% of the employees have annually experienced outsourcing of work that was previously performed by the workplace itself (Ylöstalo 2003).

8.4 Teleworking

Telework in Finland was originally understood as "homework"; that is, as working away from the usual working site, mostly at home. Gradually it changed to refer to work done according to a flexible schedule and locale. In recent years, the term has evolved to e-work, which encompasses both more traditional telework and work that is organised by taking advantage of teleinformatics. Finland's National Telework Development Programme, initiated in 1995, sees telework as "part of the process of change of the work and organisation culture of the post-industrial Information Society". And in 2002, the government appointed a group for e-work co-operation, co-ordinated by the Ministry of Labour and with members representing ministries, as well as various stakeholders such as labour market organisations, the business sector and universities. The main goal of the group is to enhance the appropriate use of telework in support of labour, regional, transportation and family policies, as well as sustainable development of the economy. The group also aims at disseminating information on e-work over the Internet.[92]

Telework in Finland is voluntary, starting mostly at the initiative of the employee. Generally it is informal, based on a verbal agreement between the employee and the employer. A written contract is made in only one case out of three. All in all, telework in Finland has traditionally been organised according to many of the key criteria set out in the EU-level framework agreement on telework that was formally signed by central EU-level social partners on 16 July 2002. The agreement regulates areas such as employment conditions, health and safety, and training and collective rights of teleworkers.[93]

The Finnish labour force structure in combination with the high level of technology offers a substantial potential for teleworking and the flexibility it can add to both work organisation and working life practices. This also provides an important explanation for the rapidly growing interest in teleworking in Finland. The reported numbers of teleworkers vary considerably, however, depending on the actual definition used and the time span covered in

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[91] Pajarinen (2001), for instance, provides a comprehensive study of outsourcing trends of intermediate goods and services production in Finnish industry.

[92] The web site for these services is http://www.ework.fi

[93] For more details, see e.g. the EIRO web site at http://www.eiro.eurofound.eu.int/2002/07/ feature/EU0207204F.html

the surveys. Indeed, "telework" is often used to refer to highly different things, which has given rise to multiple interpretations of the term. Nevertheless, most telework definitions refer to work done elsewhere than on the actual premises of the employer; that is, telework partly replaces work performed at the actual workplace. More precisely, telework is to be seen as actual work and does not cover activities that are merely complementary to work, albeit performed at a distance (such as uncompensated overtime done at home in the evenings or at weekends). Additionally, telework is commonly taken to involve the utilisation of ICTs; that is, the moving of information instead of people to places and at times that are most suitable for working. But simultaneously this means that the borderline especially between telework and entrepreneurship becomes flexible and vague.

According to the Barometer of Working Conditions compiled by Statistics Finland, in 1994 some 8.4% of the employees worked outside their actual workplace permanently or temporarily using ICT technologies. The corresponding share for 1997 was 12.5%. Typically, teleworking is of short duration and done on an *ad hoc* basis. Indeed, more than 40% of the surveyed employees reported their total number of teleworking hours per month to be 8 hours, at most. Related to all employees, this corresponds to about 5%, whereas the relative share of employees teleworking for 17 hours or more per month was estimated to be approximately 3% (Pekkola 2002).

According to another recent study of Finnish teleworking (Helminen *et al*. 2003), in 2000 only 4.6% of all employees did distance working. This considerably lower share of teleworkers compared to the working life barometer figures is explained simply by the use of different definitions. More precisely, the Helminen *et al*. study is based on a survey that allows the interviewees to subjectively define telework, while the barometer uses a much broader explicitly stated definition that captures, *inter alia*, any work done at home that substitutes or complements the work performed at the workplace. A common feature of the two studies, however, is that they both find teleworking to be mainly of an *ad hoc* nature, taking place only for a few hours at a time. Simultaneously, this means that the reported share of teleworkers necessarily increases with the length of the surveyed time period. Put differently, the relative share of teleworkers is throughout found to be larger when the interviewees are asked to cover, say, a certain month instead of a certain week. Furthermore, Helminen *et al.* (2003) report teleworking to be heavily concentrated in higher educated, upper-level white-collars living and working in urban areas, with the highest concentration of teleworking observed in the Helsinki area.

The share of teleworkers in Finland is high from an international perspective. Based on a rather broad definition of telework, 10.8% of the Finnish labour force is reported to telework on a regular basis, compared to a European average of 4.1%. If any kind of telework is included, the share for Finland increases to 16.8% and that for Europe to around 6%. A more restrictive definition, limiting teleworking to more traditional telework performed at home, produces a labour force share of 6.7% for Finland compared to 2.0% for Europe on average. The share of the Finnish workforce doing supplemental work at home is estimated to be only slightly lower, or 6.0%, with the European average remaining at 2.0%.[94]
All in all, the available information on telework in Finland indicates that many people work a few hours per month at home. Commonly this is not telework in the proper sense, though, but work that complements the work performed at the employer's facilities. The number of actual teleworkers is still small, and few of them do much teleworking when measured by hours.

[94] For more details, see the *ECaTT Final Report* (2000). Also see the Status Reports on European telework published at http://www.eto.org.uk

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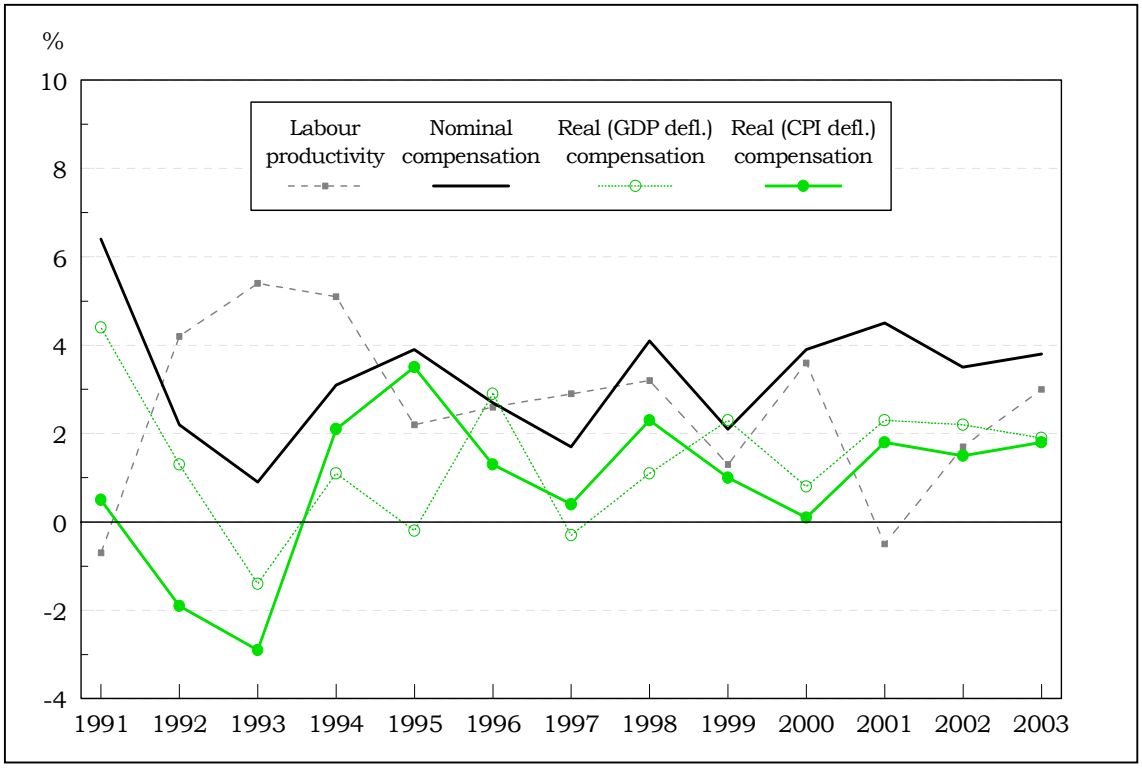
9. WAGE DEVELOPMENTS AND FLEXIBILITY

Calls for maintained wage moderation have been at the top of the Finnish industrial relations agenda especially since the deep economic crises in the early 1990s. With centralised incomes policy agreements of recent years having simultaneously aimed at restraint in pricing policy, the purchasing power of employees has improved despite relatively moderate wage increases (Figure 9.1).

Figure 9.1 Nominal and real compensation per employee compared with labour productivity, annual percentage change, 1991 – 2003



Source: European Commission, *Employment in Europe* (various volumes)

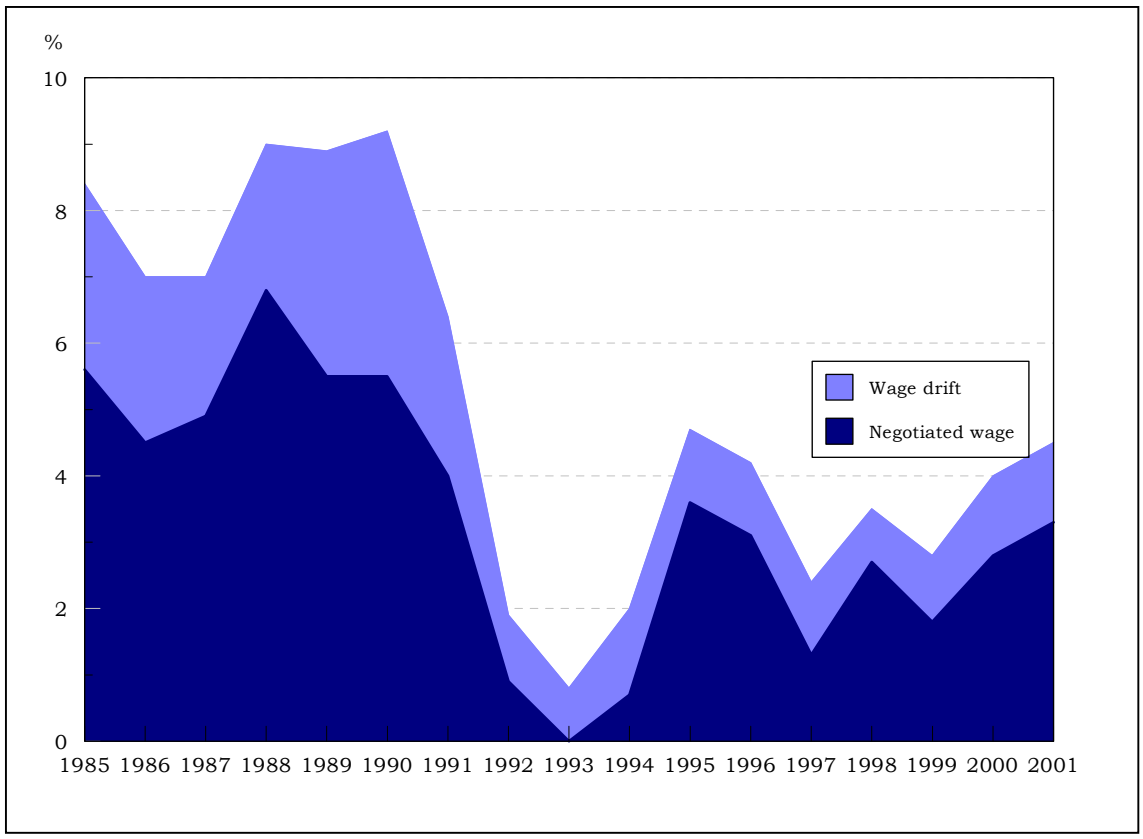
A key principle guiding the wage negotiations by social partners is that the collective bargaining outcomes are in balance with the sum total of the evolution of prices and labour productivity.[95] As can be seen from Figure 9.1, this goal has been reached with varying success over the past decade or so.

Collectively agreed pay increases only lay the basis. The actual development of earnings may even be appreciably higher than the agreed minima. The difference between collectively agreed and actual pay increases is affected by a broad set of elements, including overtime pay and various bonuses, that could be called wage drift. As shown in Figure 9.2,

[95] This way of linking pay developments with labour market conditions has also been increasingly stressed in the European Commission's "Recommendations on the broad guidelines of the economic policies of the Member States and the Community". Indeed, in the 2002 Recommendations, it is strongly stressed that increases in nominal wages should be consistent with price stability, and that increases in real wages should not exceed growth in labour productivity. For recent evidence of the success of member states in implementing these guidelines on pay, see e.g. the EIRO update "Pay developments – 2002" at the web site address http://www.eiro.eurofound.eu.int/2003/03/Update/TN0303102U.html.

however, the wage increases due to wage drift have also persistently been considerably more moderate after than before the economic crisis in the early 1990s.

Figure 9.2 Average increase in annual earnings due to negotiated wages and wage drift, 1985 – 2001



Source: Statistics Finland

Wage developments in Finland in recent years have been moderate also when compared to most other European countries (Table 9.1). Averaging the annual increases in average collectively agreed basic pay over the five-year period 1998 – 2002, Finland falls into the category of low nominal pay-increases countries with pay increases having averaged 2–3%. Also when adjusting these average collectively agreed pay increases for inflation, Finland belongs to the category of low increase countries (real pay increases less than 1% when averaging over the four-year period 1999 – 2002). With respect to recent increases in actual average earnings, finally, Finland is close to the EU average.

Pay determination in Finland is, as a rule, regulated by intersectoral collective agreements offering minor, if any, opportunities for wage flexibility, when disregarding situations where wages are affected by changes in hours worked. Companies have, therefore, tried to create additional wage systems that react rapidly to changes in their ability to pay. This search for increased wage flexibility has resulted in expanding use of merit pay; that is, variable pay linked to criteria such as company profits or results. Merit pay is determined by local-level agreements on company-specific grounds. The granting of merit payments depends on whether or not pre-set goals and criteria are met. These are assessed at least once a year and intend to provide motivation and incentives for the personnel.

Table 9.1 Finnish wage developments from a European perspective, 2001 and 2002

Country	Average collectively agreed pay increases, %		Average collectively agreed pay increases adjusted for inflation, %		Increases in average actual earnings, %	
	2001	2002	2001	2002	2001	2002
Finland	**3.3**	**2.3**	**0.6**	**0.3**	**4.5**	**n.a.**
Austria	2.7	2.1	0.4	0.4	n.a.	n.a.
Belgium	3.8	3.6	1.4	2.0	3.8	3.6
Denmark	2.4	2.4	0.1	0.0	4.2	4.1
Germany	2.1	2.7	-0.3	1.4	1.9	1.7
Greece	3.5	5.4	-0.2	1.5	5.2	7.0
France	3.9	n.a.	2.1	n.a.	2.4	2.5
Ireland	7.5	5.0	3.5	0.3	9.0	6.2
Italy	2.4	2.5	-0.3	-0.1	3.0	2.7
Luxembourg	4.5	4.3	2.1	2.2	4.3	4.3
Netherlands	4.4	3.8	-0.7	-0.1	4.7	2.7
Norway	4.8	5.5	2.1	4.7	4.8	5.5
Portugal	4.5	3.1	-0.1	-0.6	5.8	n.a.
Spain	3.7	3.9	0.0	0.3	3.7	3.8
Sweden	3.0	3.0	0.3	1.0	3.3	4.4
UK	3.5	3.0	2.3	1.7	4.3	4.2
Average	3.8	3.5	0.8	1.0	4.3	4.1

Source: Pay developments – 2002.

Recent surveys undertaken by the Confederation of Finnish Industry and Employers (TT) and the Employers' Confederation of Service Industries (PT) reveal that merit pay schemes have become widespread in Finnish companies, and there are plans to extend them further.[96] According to the TT survey, 66% of establishments in industry and 74% of those in the construction and services sectors were using merit pay schemes in 2001. The number of employees in industry covered by a merit pay scheme has grown by almost 50% in three years' time, and by 2001 some 67% of them were covered by a merit pay scheme. This rapid growth stems both from new companies having introduced such systems and from companies already using merit pay having extended the schemes to additional personnel groups. In 2001, a merit payment was actually received by 42% of employees in industry. This payment was on average 6.1% of the total annual income for clerical employees and to 3.4% for other employees.

The PT survey, in turn, indicates that merit pay schemes are in use in one-fourth of PT's service sector member companies and cover around 40% of the sector's employees. In 2001, the average merit payment was, on average, slightly less than 5% of the employees' annual income. The survey also reveals that merit pay schemes are more common in larger than in smaller companies, while the average level of merit payments was higher in small and medium-sized companies than in larger companies.

The increased use of mechanisms providing for greater flexibility in pay determination is also reflected in the employees' perceptions concerning their opportunities to influence

[96] See e.g. the EIRO web site at http://www.eiro.eurofound.eu.int/2002/08/Feature/ FI0208101F.html.

their pay through their own performance (Ylöstalo 2003). While in 1993, less than 10% of the employees thought that work quality affected the pay level, this share has been 15% or more in recent years. Likewise, today almost 20% of employees think that pay levels can be improved by teamwork results, compared to a share of 11% in 1993.

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10. FUNCTIONAL FLEXIBILITY THROUGH TRAINING AND QUALITY OF WORKING LIFE

Along with the use of numerical flexibility and the search for greater wage flexibility, Finnish employers are paying increasingly more attention to functional flexibility. Training and skills development have traditionally been of high priority, but in recent years other quality aspects of working life have also climbed higher up the agenda. This development has been supported and fuelled by legislative initiatives, as well as collective bargaining.

10.1 Training and skills development

There is still only rather scarce and spread information available about the training efforts made by Finnish employers, and virtually nothing on the economic benefits that the employers gain from undertaking these investments. According to figures published by the Confederation of Finnish Industry and Employers, Finnish industry invested some 0,6 billion euros in training in 2002. The sector's expenditures on training have increased tremendously in ten years' time, being less than 0,2 billion euros in 1993. These expenditures were more than 5% of the total wage sum of Finnish industry in 2002 compared to just over 2% in 1993.

Table 10.1 Participation in in-service training, 1982 – 2001

	Number of employees having participated in in-service training (´000)	Share of all employees, %	Total number of training days (´000)	Training days per participant (median)	Training days per participant (mean)	Training days per employee
1982	565	28.6	4,125	n.a.	7.3	2.1
1983	569	28.5	4,324	n.a.	7.6	2.2
1984	626	30.6	4,632	n.a.	7.4	2.3
1985	652	31.5	4,629	n.a.	7.1	2.2
1986	667	32.7	4,669	n.a.	7.0	2.3
1987	693	34.4	4,505	n.a.	6.5	2.2
1988	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1989	907	43.8	5,442	4.0	6.0	2.6
1990	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1991	788	41.7	5,358	5.0	6.8	2.8
1992	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1993	684	41.4	4,241	4.0	6.2	2.6
1994	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1995	759	44.4	4,934	4.0	6.5	2.9
1996	761	44.3	5,175	4.0	6.8	3.0
1997	744	41.6	5,357	5.0	7.2	3.0
1998	781	42.0	5,155	4.0	6.6	2.8
1999	838	42.9	5,477	4.0	6.5	2.8
2000	869	43.3	5,301	4.0	6.1	2.6
2001	916	44.8	5,679	4.0	6.2	2.8

Source: Statistics Finland, In-service Training 2001, Education 2002:7.

Statistics Finland compiles information on a regular basis about the extent of in-service training. This refers to off-the-job training financed wholly or partly by the employer. As can be seen from Table 10.1, a steadily growing share of employees participate in training, but the length of the training received has generally and persistently been of a short-term nature extending over a total of only 4 to 5 training days per year, on average.

These average figures, however, conceal substantial variation in the incidence of training when it comes to age, gender, educational attainment level, socio-economic status, branch of activity and firm size. Table 10.2 shows that participation in training is common in all age groups except for the youngest one. Moreover, women participate in training more often than men, but their training is generally of much shorter duration compared to that of their male colleagues. This is a strong indication of there being notable differences in the type of training that men and women tend to receive. No such information is available, though. Analyses of the wage effects of training, however, support the contention of differences in the content of the training in which men and women participate. In particular, the evidence points to marked wage effects of the training received by male employees but minor, if any, wage effects of the training received by female employees.[97]

Table 10.2 Participation in in-service training by age group and gender, 2001

Age group	Percentage share having participated in in-service training during the year			Average number of training days per participant and year		
	All	Men	Women	All	Men	Women
15 – 24	23.7	23.6	23.8	7.0	9.0	5.1
25 – 34	46.6	45.5	48.0	7.6	9.0	5.9
35 – 44	49.9	45.4	54.4	6.2	6.7	5.7
45 – 54	47.3	43.7	50.6	5.4	5.8	5.2
55 – 64	43.4	37.9	48.3	4.8	4.5	5.0
15 – 64	44.8	41.8	47.8	6.2	7.0	5.5

Source: Statistics Finland, In-service Training 2001, Education 2002:7.

Table 10.3, finally, reveals a remarkable concentration of employer-financed training in the well-educated employees, as well as to those high up in the hierarchy. When looked at from a branch of activity point-of-view, the available statistics show that the least training, as measured by the average number of training days per participant, is received in construction (4.5 days in 2001) and trade (5.4 days). Employees working in the financing, insurance and real estate sector receive most training on an annual basis (6.7 days on average). Furthermore, the average length of training tends to increase with the size of the company. In 2001, companies employing more than 500 persons trained their personnel for 7 days on average, compared to 5.7 days in companies with less than 50 employees.

Employer-financed in-service training activities in Finland are notable also from a European perspective. According to the second European survey of continuing vocational education in enterprises[98], Finland ranks high up when measuring training intensity by the number of course hours per participant and even more so when comparing the share of

[97] See e.g. Asplund (1993).

[98] See Nestler & Kailis (2003) and also the references therein. For additional international comparisons, see e.g. OECD (2002a, 2002b).

course hours in total working hours across Europe (Table 10.4). The pattern that emerges for Finland when analysing training by the size of the company, however, strongly resembles that of a majority of the European countries. More precisely, the number of course hours in total working hours tend to grow with firm size, but the difference between small and medium-sized companies is minor or negligible. On the other hand, when looking at course hours per participant, the highest training intensity is noted for small enterprises. Additionally, also in Finland the highest training figures were obtained for real estate, renting and business activities, as well as for financial intermediation. Finland diverges from the common European trend in one aspect, though; while the gender gap in training intensity is generally minor, or even in favour of women, Finland is among the few countries with a gender gap in training intensity that is strongly in favour of men.

Table 10.3 Participation in in-service training by educational attainment level, socio-economic status and gender, 2001

	Percentage share having participated in in-service training during the year			Average number of training days per participant and year		
	All	Men	Women	All	Men	Women
Primary education	27.4	n.a.	n.a.	5.3	5.1	5.5
Secondary education	38.4	n.a.	n.a.	5.8	6.8	4.8
Tertiary education	60.5	n.a.	n.a.	6.7	7.7	5.9
Upper white-collar	62.8	n.a.	n.a.	7.3	7.9	6.5
Lower white-collar	51.6	n.a.	n.a.	5.7	7.2	5.1
Blue-collar	25.5	n.a.	n.a.	5.3	5.6	4.6

Source: Statistics Finland, In-service Training 2001, Education 2002:7.

Table 10.4 In-service training by firm size in selected European countries, 1999

	Course hours per 1,000 working hours			Course hours per participant		
	10 – 49 employees	50 – 249 employees	250 or more employees	10 – 49 employees	50 – 249 employees	250 or more employees
Finland	**8**	**8**	**13**	**43**	**34**	**34**
Belgium	5	8	11	36	32	29
Denmark	12	14	14	37	44	41
Germany	3	5	6	23	31	27
Spain	3	5	10	54	41	40
Ireland	8	8	12	48	36	39
Luxembourg	4	5	13	40	27	45
Netherlands	7	10	13	29	35	42
Austria	4	4	6	28	26	31
Portugal	1	3	8	37	38	39
Sweden	9	8	14	30	26	32
Norway	8	8	13	28	27	40

Source: Nestler & Kailis (2003)

Questions related to training and skills development are an essential part of life-long learning, that is, vocational education and training of the adult population. The social partners in Finland have traditionally been prominently involved in efforts aiming at improving the productivity of the workforce, increasing employees' chances of labour market mobility, and promoting "coping at work" with special emphasis on decreasing employees' risks of marginalisation and unemployment. An illustrative example is the agreement between the social partners and the government on a programme of adult training related reform during 1995 – 1999, one crucial outcome of which has been a so-called training guarantee scheme. The first phase of this scheme concerned the training of long-term unemployed people. The second phase was intended to support self-motivated learning by unemployed people having been in working life for a longer period. The third phase, agreed on in early 2000, involves a scheme providing funding for people in employment to undertake vocational training courses on their own initiative.[99]

Another illustrative example is the parliamentary adult education and vocational training working group, made up of members of parliament and broad-based expertise representing also the social partners, that submitted a proposal in early 2002 for a comprehensive education and training programme for the period 2003 to 2007. The working group examined the goals of adult education and training, the adequacy of current supply and its match with working life and the financing of education and training. The working group points particularly to the need to develop the professional skills of those almost half a million people (some 20%) of the labour force that have only a basic school education to ensure their continued involvement in working life.[100]

10.2 Quality of working life

Quality of working life involves a broad set of aspects, many of which are hard to quantify. Moreover, the way employees experience the quality of their working life is affected not only by training and other measures improving their ability to "cope" with work, but also by matters related to job security and wages. Thus, the quality of working life can be argued to be influenced by job creation and especially the relationship between new jobs of a permanent versus a temporary nature; job destruction and particularly the risk of being dismissed or laid off in combination with the chances of getting a new job that matches the acquired education and skills; and the outsourcing strategies of the workplace. Wage-related aspects include overtime and opportunities to impact on the pay level through one's own performance. Such aspects have been dealt with, to a varying extent, in the preceding chapters and are, therefore, omitted in Table 10.5 below. The table instead focuses on aspects that may be argued to highlight the prevalence and evolution of functional flexibility mechanisms in Finnish working life. Several of these relate to occupational safety and health, which is also to be expected in view of the emphasis attached to such matters both in legislation and collective bargaining. The fact that quality of work is largely seen as a health and safety issue actually makes Finland much of an exception in the European context.[101]

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[99] See e.g. the EIRO web site at http://www.eiro.eurofound.eu.int/2000/02/inbrief/ FI0002134N.htlm.

[100] For more details, see e.g. the EIRO web site at http://www.eiro.eurofound.eu.int/2002/03/ feature/FI0203103F.htlm.

[101] See the article "Working time developments and the quality of work" in the EIRO Observer Update 2'02.

The dominance of employer initiatives related to training and skills development, health and safety is well illustrated by the high percentage shares of workplaces having annually invested in such measures. The widely spread implementation of various modes of team working in Finnish workplaces is also evident from the table, which may partly explain the persistently relatively high propensity of employees for taking initiatives related to their work environment and the way working tasks are performed. Additionally, the high propensity to take initiatives is, without doubt, also enhanced by the personnel's perception that it is possible to influence their workplace and this has even improved slightly over the years.

Table 10.5 Selected indicators illuminating the quality of working life, 1995 – 2002

Share (%) of employed/workplaces	1995	1996	1997	1998	1999	2000	2001	2002
Workplace improvements:								
- development programmes for productivity, quality, etc	68	48	51	46	53	50	48	42
- measures aimed at improving the health of the personnel	n.a.	n.a.	50	59	60	59	62	62
- measures aimed at improving the skills of the personnel	n.a.	n.a.	59	69	73	72	74	74
- measures aimed at improving work safety	n.a.	n.a.	48	65	69	70	75	76
Use of team working	72	73	71	74	75	78	75	75
Management:								
- improving	33	33	33	33	34	34	30	32
- worsening	10	10	9	9	9	7	7	9
Work-related initiatives by employees	53	60	58	57	63	60	57	56
Changed opportunities to influence:								
- improved opportunities to influence working tasks	31	40	39	37	39	41	30	n.a.
- improved opportunities to influence work sharing	22	21	23	20	21	23	18	n.a.

Source: Ylöstalo (2003)

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11 SUMMARY OF INTERVIEWS WITH POLICY-MAKERS AND SOCIAL PARTNERS

by Jenni Oksanen

This chapter summarises the results of interviews conducted with Finnish authorities involved in or responsible for labour market and technology policies. Seven people were interviewed, representing the Ministry of Labour (MOL), the Ministry of Trade and Industry (KTM), the Confederation of Finnish Industry and Employers (TT), the Central Organisation of Finnish Trade Unions (SAK) and the National Technology Agency (Tekes).

The interviews were built around a battery of questions, which functioned as guidelines for the discussion, but were not too closely followed when the discussion otherwise moved ahead. The questions concerned the introduction and progress of labour market flexibility and the central flexibility mechanisms in use in Finland. A couple of questions also asked about the role of employment legislation and labour market institutions in enabling flexibility, and the alignment of labour market and technology policies. Finally, the interviewees were asked about the future possibilities of promoting labour market flexibility.

➢ Trends in flexibilisation

The overall trend has pointed to increasing labour market flexibility over the past decades, but the emphasis has been on different forms of flexibility at different times. In the 1970s and 80s, the focus was on shortening the workweek to a Central European level, first without flexibility, but later on also with allowance for working time flexibility. According to the employers' confederation, the breakthrough in working time flexibility occurred in the deep recession years of 1991 – 92. Subsequently in the 1990s, the movement was from layoffs to atypical employment relationships, when companies began to concentrate on core competencies. This shift can be seen in the substantial increase in the amount of fixed-term employment contracts.

Elements of wage flexibility have been merit pay schemes and wage flexibility obtained through the use of other than "normal" wage reductions, such as cuts of holiday bonuses etc. The employers maintain that the lack of wage flexibility continues to be a problem. The increased opportunity to use local bargaining has increased wage flexibility, but more is needed to ensure firms' competitiveness.

The Ministry of Labour interviewee noted that the underlying structure of the Finnish labour market *per se* contributes to the adoption of functional flexibility. High unionisation rates prevent companies from benefiting from wage competition, turning the focus instead on issues related to training and the quality of working life. Competence and skills development is encouraged whereas less demanding and simple jobs become rarer.

The Tekes interviewees pointed out that the flexibilisation of the Finnish labour markets is linked to a broader structural change in the economy. Rapidly growing investments in R&D in the private sector (and to some extent also in the public sector) have brought about a fast changing environment. With this rapid rate of change, Finland is likely to have deviated from the average European development. This has also meant a new approach to flexibility.

- **The institutional framework**

The general standpoint of all interviewees was that Finnish labour market regulations are quite market-oriented. This is because the labour market organisations create the practices, which are then implemented into legislation. What each interviewee meant by market-orientedness showed slight variations, though. The Ministry of Labour representative commented that the much-discussed need to reduce rigidities derived from regulations is primarily the idea of economists rather than employers. Instead, employers find information shortages, networking difficulties and the supply of competent labour to be their more imminent problems in the Finnish labour market. According to the employers, market-orientedness in the Finnish labour market has meant mainly working time flexibility and that the next step should be increasing wage flexibility.

All interviewees mentioned the positive role of the labour market organisations in labour market policies. Wage control has been maintained throughout the 1990s. Labour market organisations on both sides have also been favourable to technological advances. Also the employers' confederation representative emphasised the cooperative attitude of the employee organisations in the 1990s to technological change. The high unionisation rate is not, therefore, considered to be a threat to the competitiveness of Finnish companies.

- **Adjustments in the institutional framework**

On the whole, the employers' confederation interviewee underlined the considerable change in the (employee organisations') attitudes towards flexibility during the deep recession in the beginning of the 1990s. In the 1980s, the attitude of employee organisations towards flexibility was still rather negative, but things changed in the face of strong international competition and technological change. Both labour market parties understood the importance of cost-effectiveness, and the contrast inherent in industrial relations was mitigated. The recovery from the depression took place through the cooperation of both sides. In practice, this meant zero-level pay increases during the most difficult years.

The employers' confederation interviewee mentioned that the centralised wage bargaining system has started to work better over the years. In principle, the centralised wage settlements still function as recommendations of the central organisation lawyers for the member unions, but in practice all parties are more involved nowadays. The goal of improved employment has been rather well achieved, with the help of supporting taxation and technology policies. In addition, the shortening of the term of notice from one month to two weeks has contributed to numerical flexibility, although redundancies were quite easy in Finland even before this change. The employees' confederation interviewee sees, nonetheless, that there is some room for improvement in the regulatory framework concerning employee security. The employers' confederation interviewee, on the other hand, argues that latitude in the bargaining system is needed, because it is hard to accomplish wage flexibility through collective agreements. Local bargaining should be given a more prominent role in order to achieve the necessary wage flexibility. The employer side stresses the negative effect of wage rigidity on employment. If wages cannot be adjusted downwards during hard times, the economy has to resort to redundancies and layoffs.

Some interviewees pointed out that the institutional settings might change in the future because of decreasing unionisation rates. The effects of this trend are not, however, likely to be substantial, because non-unionised employees are also covered by collective wage set-

tlements. The employee side holds that the role of the labour market organisations will continue to be significant.

The adjustment of the institutional framework when it comes to functional flexibility was rather vaguely addressed by the interviewees. As mentioned above, the structure of the Finnish labour market encourages investments in competencies and skills (functional flexibility). Of course, the aforementioned technological advances also contribute to this development. The Ministry of Labour interviewee concluded that the goal is to develop a qualitatively flexible workforce, with which better results can be achieved than with the use of numerical flexibility. In the last resort, this boils down to the firm level, as it is much easier for companies to be numerically than functionally flexible. Companies tend to resort to dismissals whenever hard times occur. Consequently, the interviewees called for a broader perspective from firms.

- **The impact of and preconditions for flexibilisation**

Generally the interviewees saw the increased (numerical) flexibility had contributed to the recovery of the Finnish economy from its depression of the early 1990s. But increased numerical flexibility has its negative effects as well. Both the employees' confederation and the Ministry of Labour interviewees stressed the issue of employment security: when flexibility and competitiveness are discussed, job security enters the discussion predominantly as a cause of friction. The employee side called for other ways to accomplish flexibility than with short-term measures (e.g. layoffs and atypical employment relationships). Both interviewees maintained that the legislation concerning employment protection works fine when it comes to flexibility, but not with respect to job security.

Another matter concerning the employees' confederation and the Ministry of Labour interviewees is equality in the flexibilisation process. This is not just a question of numerical flexibility. Functional flexibility also requires more and new kinds of competencies from the workforce. Maybe these concerns can be interpreted as a fear of a dualisation development in the Finnish labour market. Also the Tekes interviewees pointed out that especially those who are already in a weak situation in the labour market, may have difficulty in adapting to new working systems involving, say, teamwork. On the other hand, as the Ministry of Labour interviewee remarked, even more skilled and educated people have to face employment uncertainty nowadays.

The employees' confederation interviewee, in turn, stated that companies should keep in mind, when pursuing their personnel policies, both the targets and the measures available for achieving these targets. The employers have obligations, and concentration on mere cost-effectiveness will be disastrous for the company in the long term. A challenging work environment, which develops instead of crushes the employee, results in innovation and quality of work.

More training is needed for companies to be able to take full advantage of functional flexibility. The Ministry of Labour interviewee noted that it would be desirable to have one-third of working time devoted to training, although admittedly the costs associated with this are substantial. For the increase in training to be effective, the structure of work inside the company needs to be reorganised as well. The Ministry of Labour interviewee regretted that the Tayloristic production system still seems to work well in certain circumstances. The impact of such a production system on workers is quite different, which is evident by

the relatively high willingness to retire early. This obviously affects productivity at the firm and at the country level.

- **The role of technology policy**

Finnish technology policy has commonly been seen as a substantial factor having contributed to the economic recovery in the 1990s. The employers' confederation interviewee noted that the Finnish technology and education policy has succeeded in producing a skilled workforce, and has enhanced the use of know-how in research and development activities. Technology policy issues and their significance were, however, addressed primarily in the interviews conducted with the Ministry of Trade and Industry and the National Technology Agency representatives, the key actors on this side.

Technology policy was given an explicit role in Finnish economic policy in the beginning of the 1980s, although many important steps in technology policy date back to the 1970s. The development has been an on-going process starting from the introduction of technology policy alongside science policy. The aim was to utilise knowledge and competence in order to enhance competitiveness and the creation of new firms and jobs. Today there is a notion of innovation policy in the fields of technology and science policy. It means that science and technology policy does not merely encompass financing and building competence, but also more general policies concerning firms' competitiveness, the creation of new firms and, for instance, the spotting of bottlenecks in relation to basic know-how and education. The policy instruments have changed along with this development. Many of them were introduced to some extent already in the 1970s (subsidies, risk credits and public research programmes), but the development has gone from mere company subsidies to generating an environment, where the foundation of new enterprises can be supported efficiently both legislatively and financially.

- **Flexibilisation and international competitiveness**

Strong international competition and rapid technical change have been, and will continue to be, important factors steering the flexibilisation development. The general conclusion seems to be that international competition is a major factor forcing companies to be more flexible. The employees' confederation representative pointed out a possible danger in the internationalisation process: it can lead to a variety of practices, which are hard to monitor.

In a European perspective, the interviewees viewed the Finnish labour market to be rather flexible and to have functioned fairly well in the 1990s. Finnish society has generally been positive towards technology, which has probably been reflected in the labour market as some kind of flexibility. According to the Ministry of Trade and Industry interviewee, technology could not have been utilised in Finnish companies to the extent that actually happened unless there were enough flexibility in the labour market. Another question is whether we should go even further in the future. Circumstances change quickly, companies need to adapt, and the need for flexibility will probably increase.

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