Statistics Finland

1996

PRICES AND WAGES REVIEW

- Trends in earning and wage differentials
- 13 labour disputes in the third quarter of 1995
- Hourly wages of industrial workers for normal working time FIN 55.35
- Record rate of increase in export prices for paper and paperboard
- Total earnings by monthly salaried local government employees up by 1.1%
- Fall in the prices of dwellings continued

Prices and Wages Review 1996

WAGES AND LABOUR COSTS

LABOUR DISPUTES

PRICES

Prices and Wages Review *provides concire statistical data on wages, prices and labour disputes.*

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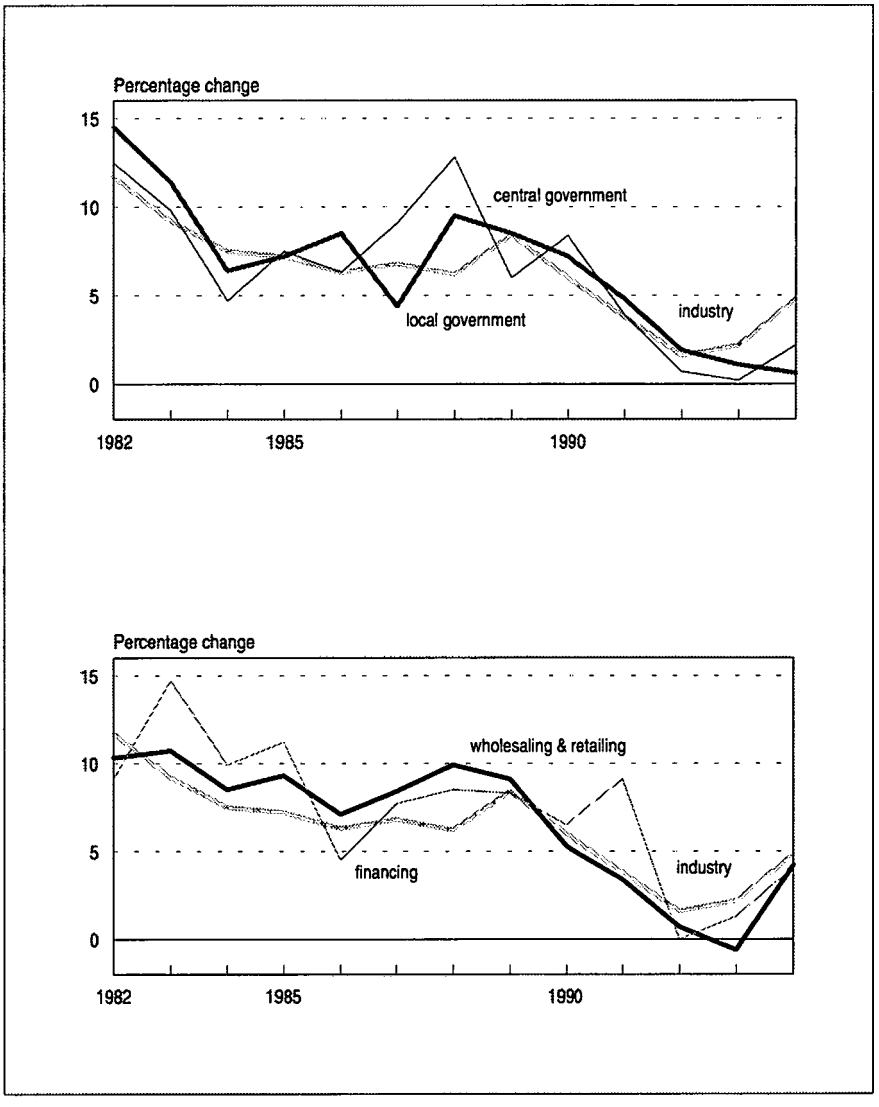
TRENDS IN EARNINGS AND WAGE DIFFERENTIALS

The long-term trend towards the equalization of wage differentials — particularly between the sexes — is coming to an end, and the gap appears to be growing. According to the latest income distribution statistics, differences in earnings by households increased in 1993 as a result of the combined effect of the new capital gains tax and higher unemployment rate. However, there was no major increase in the divergence of earnings between men and women. The index of wages and salary earnings (IWSE) shows that the income levels of women increased at a faster rate than those of men during the period 1990 to 1994.

Wage increases specific to individual branches, as agreed in the collective terms of employment, have fluctuated since 1993. However, the differences in the adjustment of the wages and salaries for white and blue-collar workers and civil servants, as stipulated in their respective terms of employment, appear more or less uniform for all fields of activity irrespective of whether they are dominated by men or women. At the same time, the structural changes due to unemployment are reflected in the comparative surveys of income level trends.

INDEX OF WAGES AND SALARY EARNINGS FOR SOME BRANCHES; 1980=100
ANNUAL CHANGES IN THE 4th QUARTER



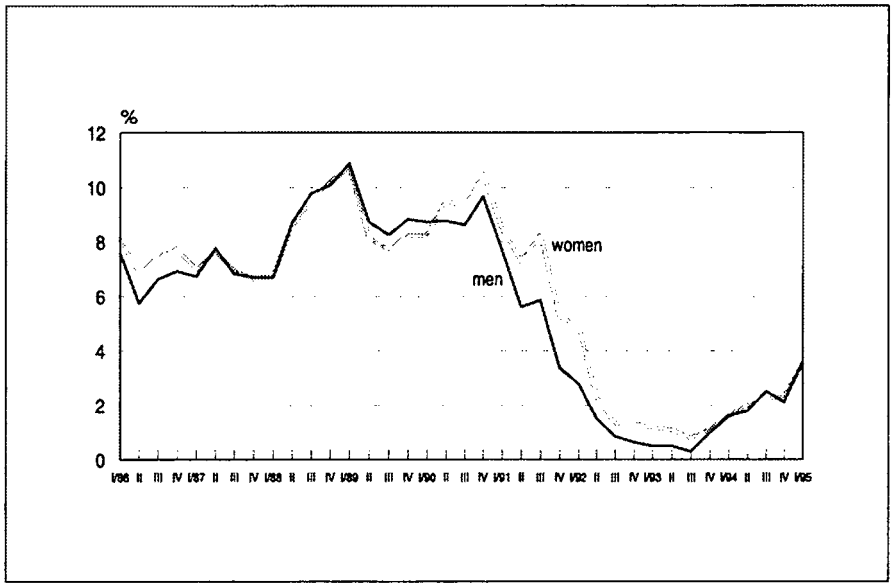
Trends in earnings according to branch from 1980 to 1995

According to the IWSE, long-term trends in average earnings for normal working hours have developed fairly uniformly since 1980. Wages and salaries paid in the banking sector increased faster than in other branches, and earnings in a number of private service occupations have also exceeded the industrial average. In the local government sector, the rate of increase was slightly faster than for wage-earners in general. The slowest rate of increase was for central government employees. Changes in the duties and structure of the wage-earner population affect, in particular, long-term trends, and thus any comparisons that are made.

Wage and salary trend by sex

According to the IWSE, women's earnings from 1985 to the end of 1995 increased by 69.8%, the corresponding figure for men being 63.8%. The index indicates that in 1993, women's earnings were up by

TRENDS IN EARNINGS FOR MEN AND WOMEN
1985=100

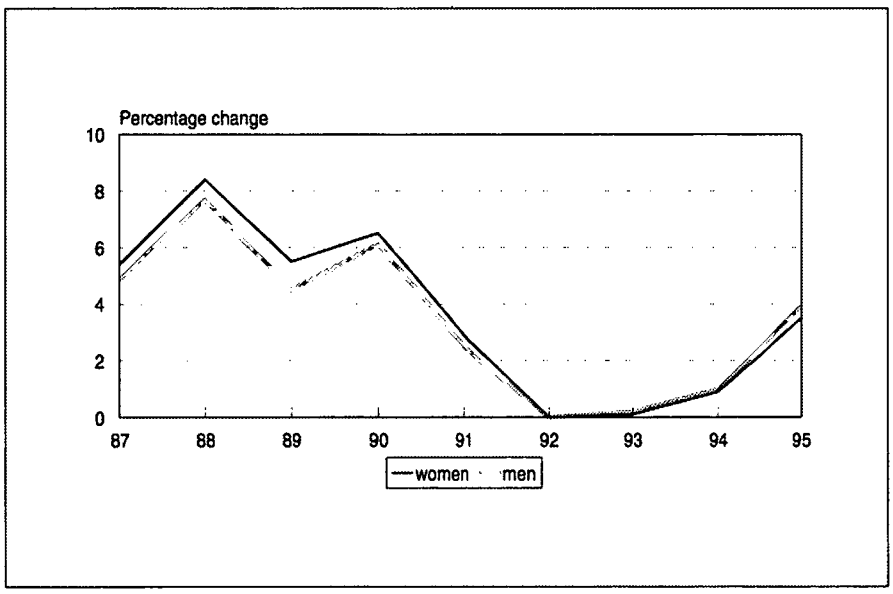


1.0% on the previous year and men's by 0.6%. In 1994, the increase was 2% for both men and women (based on preliminary data).

The collective wage index calculated as part of the index of wages and salary earnings can also be used for working out how the collectively agreed wage increases are distributed among men and women. This approach is specific to the individual branches: the estimated rise in pay in a given branch is assumed to have been equal for both men and women working in that particular branch in proportion to previous earnings. The differences are due to differences in wage increases and the different wage bills for men and women in the various branches.

The collective wage index is an indicator that shows the effects of wage adjustments, stipulated in the terms of industrial and civil service employment, on earnings for normal working hours. The index is primarily based on the estimates of the employer organizations as to the impact of the collective agreements. For the local government sector and forest industry, the 1995 estimates include one-off payments (such as performance bonus and business-cycle compensation).

PERCENTAGE CHANGE IN COLLECTIVELY AGREED WAGES



COMPARED TO THE 4th QUARTER OF THE PREVIOUS YEAR

Known effects of the terms of employment in individual branches have been allocated to men and women in proportion to respective wage bills.

	Percentage change		
	IV 1993	IV/1994	IV/1995
women	0,1	0,8	3,5
men	0,2	1,0	3,8

As shown by the graph, collectively agreed wage increases were higher for women than men up to 1992. During the past couple of years, however, the increases for men (or "male-dominated branches") have been slightly greater.

According to preliminary data, the annual increase in earnings in the last quarter of 1994 was 2.1% for men and 2.3% for women. Thus, the effects of structural changes and sliding scales seem to have increased women's average earnings more than men's.

Unemployment and income levels trends

The taxable income of people who were employed in 1992 but unemployed at the end of 1993 was less than 80% of the average earnings of those employed. Thus, it was

mostly people in low-income brackets who were made redundant (Pekka Myrskylä, Kaija Ruotsalainen: The Unemployed 1993). Such a structural change increases average earnings and the index of wages and salary earnings (IWSE) because the index is calculated on the basis of the wages and salaries earned for normal working hours by those employed at that particular time.

As the risk of unemployment (i.e. the probability of the employed being made redundant) in 1993 for those employed in 1992 was nearly 9%, the increase in unemployment increased the average earnings by a couple of percentage points. An opposite effect on the IWSE is exerted when new employees are hired at wages below the average for the particular branch.

In addition to lay-offs and terminations of employment, labour costs were reduced during the recent recession by budget cuts. In the public sector, these measures mainly involved wage components that were not included in the concept of earnings as defined for the purposes of the IWSE, such as the holiday bonus in particular.

According to the calculations of the Incomes Policy Information Commission published in the autumn of 1994, earnings levels were estimated to have increased by 8.6% for central government employees from 1990 to 1994, but if the cuts in the holiday bonus agreed during collective bargaining had been taken into account, the increase would have been 1.3 percentage points lower. By the same criteria, the increase in the index for the local government sector was 12.4% and the effect of the cuts in the holiday bonus 2.5 percentage points. Compensation for cuts in the holiday bonus was offered in the form of time off. Actual changes in earnings levels appear to exceed the above estimates, the increase being 9.0% for central government employees and 12.6% for local government employees (preliminary IWSE data, 31 May 1995).

Effects of structural changes in the central government sector on IWSE

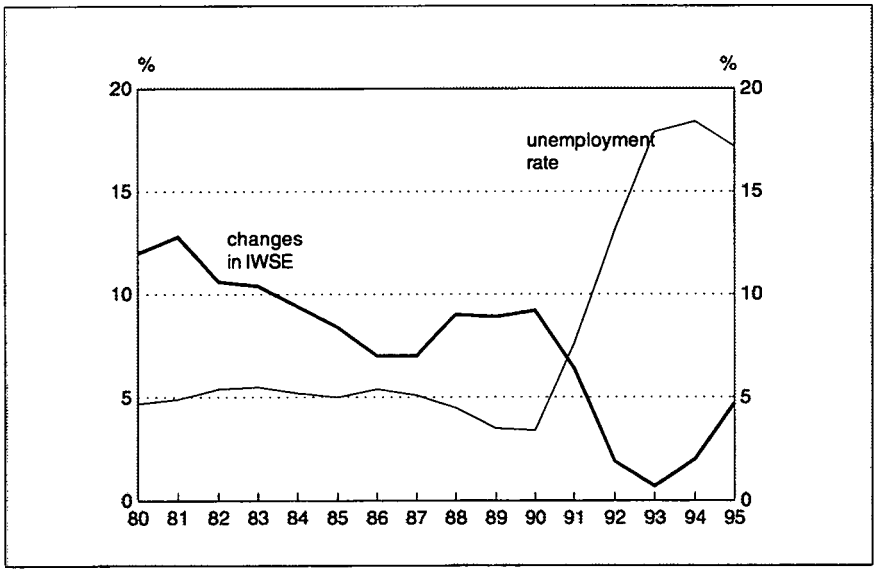
In recent years, numerous decisions to modify the organization and structure of the central government sector have affected the calculation of the IWSE as well. Owing to the splitting off and incorporation of many of the units and public services that previously fell in the central government category, large numbers of activities and personnel have been shifted to the private sector. Similar effects have resulted from the closure and merger of various operations.

As most other price and cost indices in Finland, the index of wage and salary earnings is calculated using an index year, i.e., the index illustrates the trends in earnings levels for work input similar to that in the index year in terms of the structure of the economy. To update the structure, index revisions are carried out every five years. However, so many changes have taken place in the central government sector since the current index year of 1990 that the index must be amended before the next revision.

Although the dates when the split offs and incorporations are carried out vary, all the changes are implemented in one go for the purposes of the index. The largest single units, in terms of wage bill, to be shifted to the private sector are the State Railways and Finnish Post and Telecommunications, representing the fields of transport and telecommunications, respectively. Other branches affected by these changes are industry, hotels, restaurants, catering, technical services, and public administration.

Technically, the transition is effected by introducing a new IWSE IV/1993 = 100 where the weightings and mean earnings series are carried over to the private sector. Otherwise, the wage bills are not altered. The IWSE 1990=100 is then calculated using the new index and will continue to be published, so that users will hardly notice any difference. The final index values for 1994 have been computed using the new method. This reform will not affect the overall index trend, but it will be seen in the sectoral indices.

TRENDS IN UNEMPLOYMENT RATE AND IWSE



EARNINGS LEVELS CONTINUED TO RISE JULY—SEPTEMBER 1995

From July to September 1995, the level of earnings from wages and salaries increased by an average of 4.4% compared with the same period in 1994. Over the same period, consumer prices rose by 0.5%, indicating a 3.9% increase in real terms. Earnings increased as a result of the pay rises implemented in most private and public sectors in late 1994 and early 1995.

This is indicated by the IWSE, kept by Statistics Finland, that shows the average gross earnings from wages and salaries. Earnings are calculated for normal working time. No taxes or comparable charges are deducted from the wages.

In the private sector, the nominal increase in earnings during the third quarter of 1995 was 5.0%. For local government employees, the increase was 3.6% and for central government employees 2.5% compared with the same period in 1994. As in the past, earnings increased most in industry, by 6.6%. In transport, telecommunications, and wholesaling and retailing, earnings rose by 5 to 5.5%. The lowest increases were recorded for construction.

The average gross monthly earnings for normal working hours in July—September was FIM 10,171 per month, the corresponding figures being FIM 11,525 for men and FIM 9088 for women. For those drawing a monthly salary, the average monthly earnings were FIM 10,615, the corresponding figure for those paid by the hour being FIM 8995 per month.

Source:
Index of wages and salary earnings, 3rd quarter 1995

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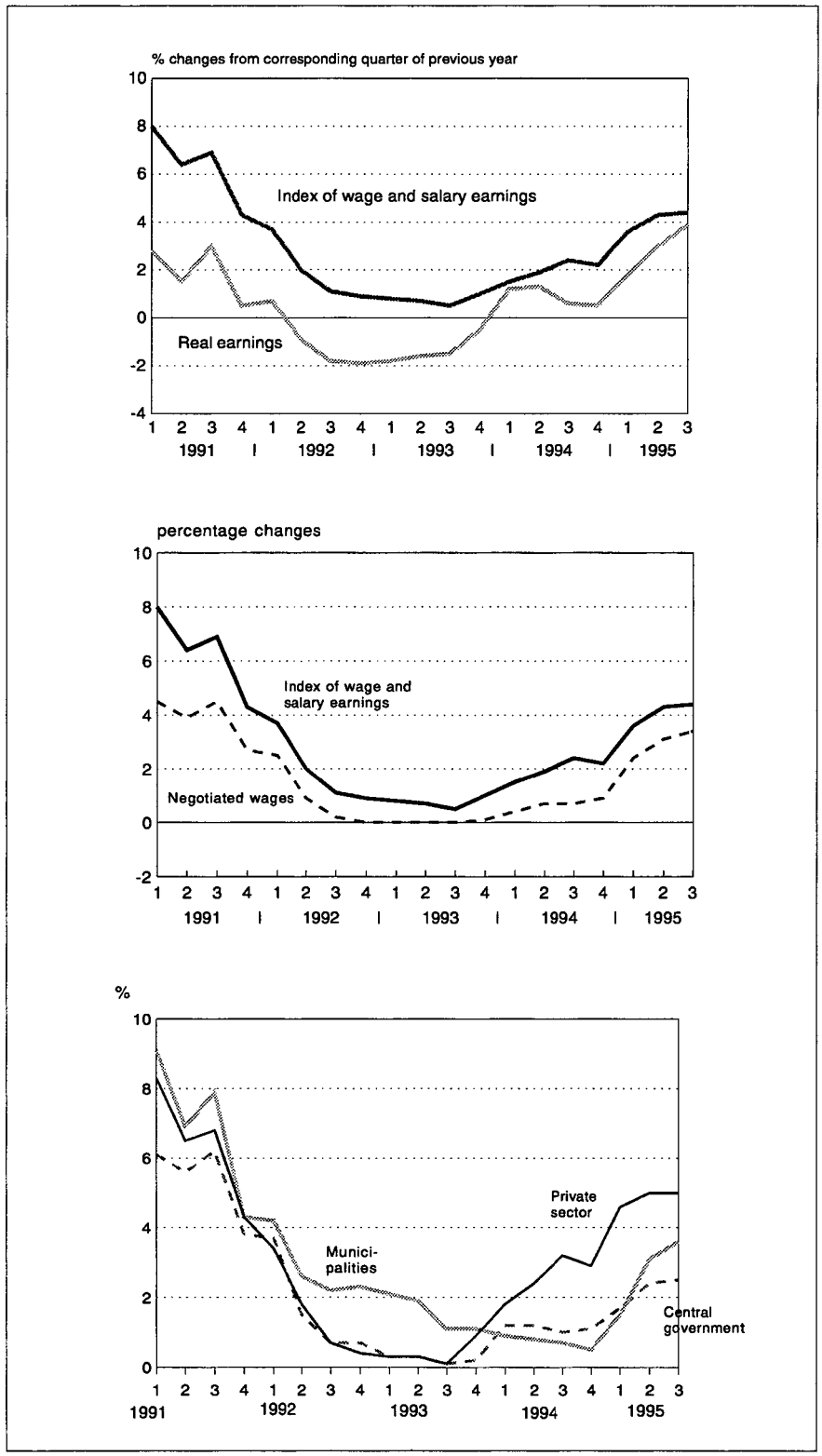
ANNUAL CHANGE IN THE INDEX OF WAGES AND SALARY EARNINGS, 1st QUARTER OF 1991—3rd QUARTER OF 1995



AVERAGE COST OF ONE HOUR OF WORK IN INDUSTRY FIM 108

Statistics Finland is currently working on a cost-of-labour index that will take all costs of labour, including social security payments, into account. To this end, trends in the cost of labour for industrial workers were used to compute indicators that are, however, not yet part of the official statistics.

BREAKDOWN OF COSTS OF LABOUR FOR HOURLY PAID WORKERS IN INDUSTRY 1990-1995 (%)

	1990	1991	1992	1993	1994	1995
Earnings for hours worked	58.0	58.6	58.7	56.4	56.0	56.5
Earnings for hours not worked	17.6	17.8	18.1	17.4	17.3	17.4
Social security	22.4	21.6	21.2	24.2	24.8	24.2
Enterprise-specific costs	2.0	2.0	2.0	2.0	2.0	2.0

In 1995, the cost of labour for hourly paid industrial workers earning average wages was about FIM 108 per hour. Of all the branches of industry, the labour costs are highest in the paper industry, where the price of labour is about FIM 140 for one hour worked. By comparison, these costs are lowest in the clothing, leather, and footwear industries, where total costs per worker are about FIM 71 per hour.

PRELIMINARY CALCULATION OF THE PRICE OF LABOUR OF HOURLY PAID WORKERS IN CERTAIN BRANCHES OF INDUSTRY IN 1995, FIM/h

	Clothing industry	Chemical industry	Wood industry	Paper industry	Basic metal industry	Metalworking industry
Earnings from hours worked	40.25	61.01	56.67	73.72	73.09	61.41
Regular working hours	39.26	53.56	52.98	60.56	64.50	57.14
Overtime and others increments	0.24	6.25	2.64	8.79	6.71	2.69
Occasional earnings	0.75	1.20	1.05	4.37	1.88	1.58
Payments for days not worked	12.93	17.67	18.92	27.21	22.42	18.86
Annual holiday pay	5.69	7.60	8.75	10.13	9.66	8.12
Holiday bonus	2.77	4.34	4.19	5.96	4.70	3.95
Days off	2.49	3.50	3.04	9.80	4.16	3.50
Public holidays	1.58	1.69	1.94	0.07	3.10	2.61
Other	0.40	0.54	1.00	1.25	0.81	0.68
Social security	16.77	25.06	25.28	37.28	30.27	25.43
Sickness/maternity pay	1.24	1.66	1.44	2.61	2.05	1.72
Statutory pensions	9.63	12.94	14.39	21.29	16.18	13.60
Voluntary pensions	0.04	0.91	0.21	0.49	0.74	0.62
Accident insurance	0.71	1.04	1.00	1.34	1.27	1.07
Social security	1.53	3.15	3.10	4.67	3.51	2.97
Sickness insurance	0.87	1.29	1.23	1.65	1.56	1.31
Unemployment insurance	2.70	3.99	3.82	5.12	4.84	4.07
Other social security	0.07	0.10	0.09	0.12	0.12	0.10
Other social welfare costs	1.26	3.44	1.31	1.74	2.28	1.92
Price of hour of work	**71.21**	**107.18**	**102.19**	**139.95**	**128.06**	**107.62**

Wages for hours worked account for about 57% of total labour costs. Moreover, employers incur additional costs for non-worked hours, in the form of social security payments and other expenses specific to individual companies, such as fringe benefits. In 1993, the increase in social security rates, particularly in unemployment insurance payments, raised the percentage of social security costs considerably. As a rule, the differences in the breakdown of labour costs, in terms of percentages, are fairly small. In the paper industry, however, indirect costs account for nearly half of total expenditure. In the heavy metals industry, the direct costs of workers to the employer are more or less the same as in the paper industry, but, for example, the pay for days off is clearly lower.

Structural changes affect trends in real costs

The purpose of the cost-of-labour index is to monitor the change in the cost of structurally homogeneous work input. This ensures that the structure of labour costs will only be affected by changes in the collective terms of employment and rates of social security payments. The

price of labour statistics are based on a survey carried out by the Research Institute of the Finnish Economy and concerning the structure of the cost of labour in 1992. This structure is then applied to other years and the structural parameters are adjusted, where necessary, to take account of changes in the collective terms of employment and social security payments. The level of the cost of labour is based on the trend of average earnings in the branch concerned.

However, actual costs may develop differently from the price of labour arrived at on the basis of changes in tariffs. For the purposes of the cost-of-labour index applied by Statistics Finland, part of the structural changes have been eliminated by keeping the relative weightings of individual branches intact. However, structural alterations are caused by changes in payment schemes, corporate downsizing and by changes in relative percentages of various professional categories taking place within individual branches. Actual trends in costs reflecting all the structural changes can be worked out by dividing the totals for wages and social security payments, as indicated in the Industrial statistics, by the number of hours worked.

In 1991 and 1992, the rate of increase in actual costs was higher than the change in the price of labour. In the past couple of years, however, this trend has been the opposite. The main reason for the different development of the cost of labour on one hand and the price of work on the other could be the compensation paid to employees who are dismissed, such as pay for unused holidays. In 1993 and 1994, in contrast, the decline in such compensations and recruitment of new employees may have slowed down the rate of increase in costs. Moreover, the relative shrinkage of the low-pay branches, which does not affect the price-of-work index based on fixed weightings, has increased the average cost of labour in industry.

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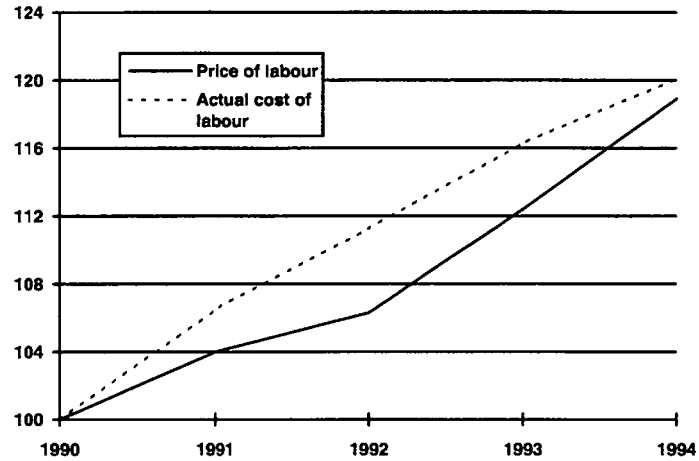
TRENDS IN COST OF LABOUR IN MANUFACTURING 1990–1994



***Source:** Industrial Yearbook*

COST-OF-LABOUR INDEX (1990 = 100), WORKERS

Year and quarter	Manufacturing, total	Foodstuffs industry	Textile industry	Clothing industry	Wood industry	Paper industry	Graphics industry	Furniture industry	Chemical industry	Building materials industry	Basic metal industry	Metal-working industry	Other manufacturing industy	House building	Other construction	Mining and quarrying
1990	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
1991	104,0	104,1	106,1	107,7	103,8	106,3	101,8	105,5	104,1	102,1	104,9	102,8	104,5	102,6	104,5	106,0
1992	106,3	105,2	110,0	109,3	106,6	107,9	103,7	108,0	107,0	104,1	107,9	105,5	106,9	100,1	103,8	109,7
1993	112,4	110,6	116,2	114,0	113,5	115,5	109,3	113,6	115,1	108,9	115,0	110,7	114,7	100,5	107,7	112,2
1994	118,9	115,4	121,3	118,0	123,1	123,5	113,7	118,7	120,5	113,8	122,9	117,6	117,1	101,0	112,5	118,7
I	117,3	112,6	119,0	117,1	121,3	125,4	113,4	118,2	117,2	111,0	119,2	115,2	121,2	101,1	109,9	119,2
II	118,9	114,8	122,0	118,0	123,2	125,2	113,0	117,0	121,1	114,1	123,3	117,2	113,7	100,5	113,6	119,5
III	118,5	114,8	122,0	118,0	122,9	120,4	113,8	117,8	121,7	114,6	123,7	117,7	113,7	100,3	114,4	120,0
IV	120,8	119,5	122,1	118,7	125,2	123,0	114,6	121,9	122,0	115,4	125,4	120,5	119,7	102,0	112,2	115,9
1995	127,2	124,8	125,3	123,1	130,7	133,8	118,5	125,7	129,8	117,9	132,3	127,1	123,3	98,6	110,5	123,3
I	125,0	122,1	123,6	120,5	128,0	130,8	115,0	122,7	128,4	116,1	130,7	125,5	123,8	95,2	108,6	121,7
II	129,0	125,2	125,7	123,8	131,2	141,9	118,8	125,5	133,3	119,9	132,6	127,5	118,6	100,9	109,2	122,1
III	126,6	124,9	125,6	123,6	131,2	130,0	119,1	127,0	128,4	117,6	132,1	126,9	125,1	98,6	111,4	124,6
IV	128,2	127,2	126,3	124,5	132,3	132,5	121,2	127,6	129,3	118,1	133,7	128,4	125,9	99,7	112,6	124,8

HOURLY WAGES OF INDUSTRIAL WORKERS FOR NORMAL WORKING TIME FIM 55.35

During the second quarter of 1995, the average hourly wage of an industrial worker for normal working hours was FIM 55.35, up 7.6% corresponding with the same quarter in the previous year. Men's average hourly wage was FIM 57.87, up 7.3%, and women's FIM 47.71, up 7.8%.

The average total hourly wage, i.e. total earnings for hours worked, including overtime and Sunday work increments, was FIM 60.96, up 9.4% on the previous year.

Hourly wages of construction workers rose to FIM 56.44

During the second quarter of 1995, the average hourly wage of a construction worker for normal working hours was FIM 56.44. This is 2.2% up on the same quarter in 1994, meaning that earnings levels began to rise in construction for the first time in three years. The hourly average wage was FIM 56.73 for men, up 2.0%, and FIM 43.97 for women, up 5.2%.

NUMBER OF WORKERS EMPLOYED IN INDUSTRY AND CONSTRUCTION AND HOURLY WAGES FOR NORMAL WORKING TIME IN THE 2ND QUARTER OF 1995

Branch	No.	% women	Hourly wages, FIM			% change	% change
			men	women	all	II/94 – II/95	IV/94 – II/95
All industry	**161 056**	**25.4**	**57.87**	**47.71**	**55.35**	**7.6**	**5.3**
Mining and quarrying	477	10.1	63.51	46.28	61.98	0.9	1.4
Peat production	273	9.9	45.75	37.82	45.18	4.1	6.7
Textile industry	4 727	67.8	49.09	40,50	43.27	2.6	2.6
Clothing, leather, footwear industry	4 333	83.8	43.28	38.66	39.43	4.9	4.3
Wood industry	12 658	23.6	53.28	49.59	52.44	6.8	4.7
Paper industry	29 885	17.3	61.41	54.25	60.25	8.5	6.1
Graphics industry	8 501	37.4	57.43	50,40	54.83	6.2	4.0
Furniture industry	5 318	27.7	48.44	45.12	47.53	8.1	4.3
Chemical industry	14 211	28.1	56.88	45.59	53.78	8.8	7.3
Glass, pottery, stone industry	7 692	20.2	54.62	47.27	53.17	6.3	4.5
Basic metal industry	8 740	11.8	63.85	57.24	63.12	6.6	3.6
Metal products and vehicles industry	57 040	23.5	58.36	49.27	56.32	8.0	4.8
Other manufacturing industry	2 077	40.7	54,10	45.01	50.48	6.0	2.4
Power plants	5 124	7.3	58.14	46.65	57.47	6.1	3.5
All construction	18 840	2.9	56.73	43.97	56.44	2.2	0.9
House building	9 129	3.9	56.27	43.73	55.87	2.0	1.9
Electrical installations	2 627	0.4	61.21	47.79	61.15	2.7	0.3
Plumbing	1 148	0.2	59.41	.	59.4	0.8	–2.5
Painting and decorating	1 467	5.2	57.35	48.03	56.91	2.2	0.2
Metalwork	250	2.4	56.54	.	56.31	5.2	6.0
Painting and decoration	618	2.4	56.92	52.89	56.83	13.4	11.7
Industrial insulation	871	3.4	54.76	34.63	54.33	3.2	0.7
Waterproofing	49	0.2	63.56	.	63.56	–2.3	3.6
Earth and hydraulic engineering	2 090	1.5	50.67	36.39	50.49	–1.2	–1.7
Glazing and polishing	191	4.7	48.74	.	48.57	4.1	5.1

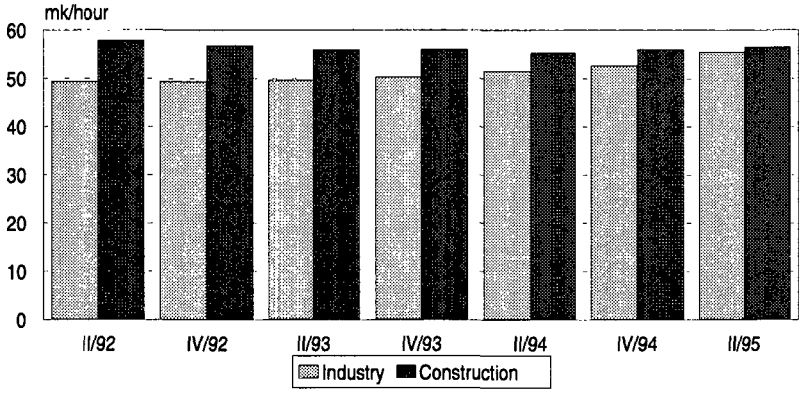
Industrial wages approach construction wages

The earnings of industrial workers have increased slightly even during the recession, with the rate of increase accelerating after 1993 when pay rises were offered in all branches of industry governed by collective terms of employment. In contrast, no pay rises took place in the construction-related branches from the spring of 1991 until the beginning of 1995.

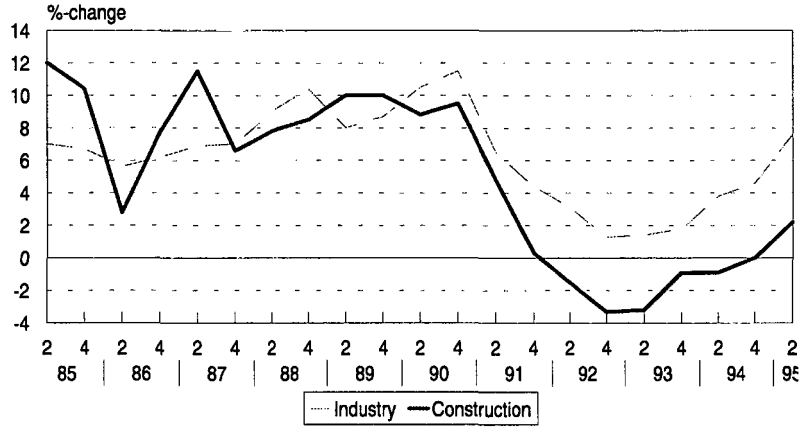
Although the earnings levels in the construction industry increased slightly compared with the second quarter of 1994, earnings for normal working hours were still 1% lower than in the second quarter of 1992. In industry, average earnings were over 13% higher than three years ago. At present, the wages of construction workers are only 2% higher than those of industrial workers, while the difference at the beginning of this decade was still around 20%.

***Source:** Wages of construction and industrial workers for normal working time in the 2nd quarter of 1995*

HOURLY WAGES OF WAGE-EARNERS FOR NORMAL WORKING TIME 1992–1995



CHANGE IN HOURLY WAGES EARNED BY INDUSTRIAL AND CONSTRUCTION WORKERS FOR NORMAL WORKING TIME COMPARED WITH THE SAME QUARTER OF THE PREVIOUS YEAR 1985–1995, 2nd QUARTER



Compared with the same quarter of the previous year, average industrial wages increased by 7.3% in industry and 2.2% in construction.

AVERAGE MONTHLY EARNINGS OF SALARIED EMPLOYEES IN INDUSTRY UP BY 4.5%

From December 1993 to December 1994, the earnings of salaried employees in industry went up by 4.5%. Over the same period, consumer prices increased by 1.8%, implying a rise of 3.1% in real terms.

The salaries of industrial employees rose slightly more than wages and salaries in general, as the preliminary data indicate that the earnings of all wage-earners for normal working hours increased by 2.3% from the 4th quarter of 1993 to October-December 1994.

Last December, the average monthly salary of a white-collar employee in industry for normal working time was FIM 12,139, that for men being FIM 13,751 and that for women FIM 9,424. Since December 1993, salaries increased as follows: for technical staff by 3.9% to FIM 11,072; for office staff by 3.9% to FIM 8969; and for senior staff by 3.5% to FIM 16,017.

The number of white-collar employees in industry declined by about 3% within one year. Relatively, the decrease was greatest among technical staff, 7.6%, and office staff, 4.7%. By contrast, the number of senior staff increased by 2.9%.

Of the earnings derived from normal working hours, those drawing a fixed monthly salary account for 95% of the total. For women, this percentage is higher (97%) than for men (94%). Fringe benefits and performance-based payments such as commissions, incomes under profit-sharing schemes, or bonuses, accounted for an average of 2% of the earnings for normal working hours.

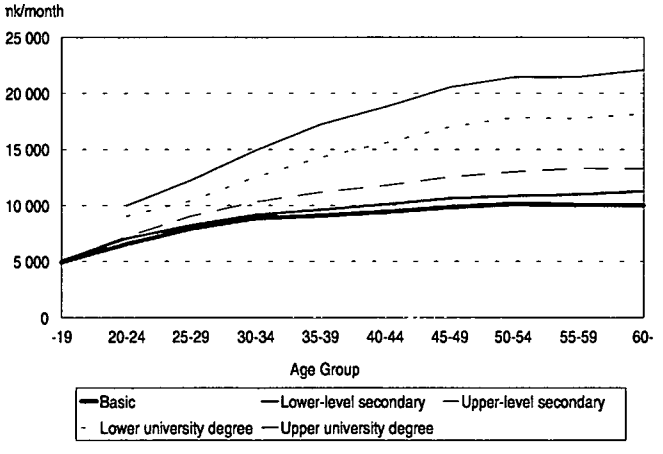
The data are based on a salary survey among white-collar employees carried out by the Confederation of Finnish Industry and Employers. The statistics include the employees of the member companies of the Finnish Food Industry Employers' Federation (FIEF). Not included in these statistics are part-time employees, trainees, those under 18 years of age, top executives and those working for a company on the basis of ownership and family relations.

Source: *Salaries in manufacturing industries 1994*

NUMBER OF TECHNICAL, OFFICE AND SENIOR STAFF

	Total	Technical	Office	Senior
1990	146 005	52 791	48 470	44 744
1991	141 619	50 847	46 279	44 493
1992	133 137	47 065	43 553	42 519
1993	112 487	39 882	35 704	36 901
1994	108 887	36 861	34 040	37 976

MONTHLY EARNINGS OF WHITE-COLLAR INDUSTRIAL EMPLOYEES BY EDUCATION AND AGE GROUP IN 1994



BREAKDOWN OF WHITE-COLLAR INDUSTRIAL EMPLOYEES IN DECEMBER 1994

	Fixed monthly earnings	Shift work increments	Fringe benefits	Performance-based bonuses
Office staff	**8 969**	**29**	**112**	**162**
women	8 453	21	48	100
men	10 998	59	364	406
Technical staff	**11 072**	**350**	**83**	**179**
women	8 859	109	30	126
men	11 543	401	94	190
Senior staff	**16 017**	**19**	**482**	**303**
women	13 774	13	294	196
men	16 526	20	524	327
Total	**12 139**	**134**	**231**	**217**
women	9 424	33	87	120
men	13 751	194	317	274

AVERAGE MONTHLY EARNINGS OF SALES STAFF FIM 7,254

In August 1994, the average monthly earnings of sales personnel, excluding overtime, was FIM 7,254, with men earning FIM 8,366 and women FIM 6,816 per month. Average monthly earnings were up 2.5% on the previous year.

The number of full-time sales personnel, excluding cleaners, was 37,188, of whom women accounted for 72%. About 13% of the total staff were shop managers, whose average monthly earnings were FIM 9,710. Men in managerial positions earned FIM 10,810 and women FIM 8,992 per month. Monthly income increased by 0.9% on the previous year.

The monthly earnings of shop assistants were FIM 6866. The sales personnel was divided into two categories according to duties and job demands. Roughly 77% of the staff fell into the female-dominated category I, where women's average monthly earnings were FIM 6436.

The work of the sales personnel in category II was classified as highly demanding and required special training or experience. About 9% of the total fell in this category. Of category II sales staff, around 63% were men and their monthly earnings were FIM 8,891.

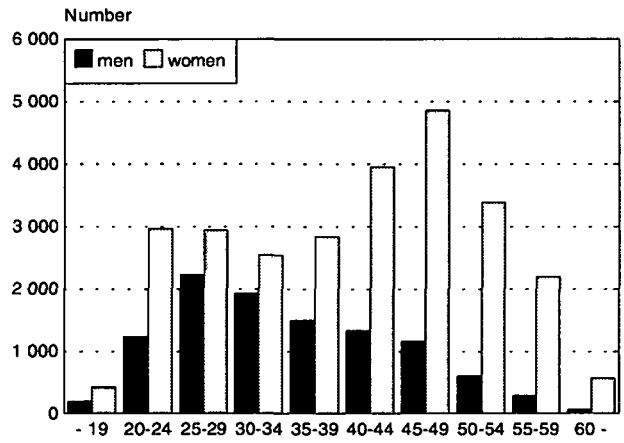
According to Statistics Finland and the payroll statistics of the Employers' Confederation of Service Industries (ECSI), in August 1994 part-time shop assistants numbered 10,200. Their average monthly earnings were FIM 3,528.

Source: Wages and salaries in the service sector 1994

NUMBER AND INCOME OF PART-TIME SHOP ASSISTANTS IN AUGUST 1994

Weekly hours	Total no.	%	Total earnings
00.01 – 05.00	600	5.9	777
05.01 – 10.00	1 300	12.7	2 071
10.01 – 15.00	1 577	15.4	2 593
15.01 – 20.00	2 148	21.0	3 548
20.01 – 25.00	2 409	23.5	4 288
25.01 – 29.99	2 205	21.5	4 956
total	**10 239**	**100**	

NUMBER OF SHOP ASSISTANTS BY AGE GROUP



MONTHLY EARNINGS OF SPECIFIC CATEGORIES 1987 – 1994

Year	Food shop assistant I			Food shop assistant II			Clothing shop assistant			Hardware shop assistant		
	No.	FIM/mo.	% change	No.	FIM/mo.	% change	No.	FIM/mo.	% change	No.	FIM/mo.	% change
1987	8 518	4 488					4 567	4 441		139	5 596	
1988	8 564	4 992	11.2				4 749	4 909	10.5	141	6 081	8.7
1989	9 283	5 442	9.0				4 113	5 398	10.0	135	6 731	10.7
1990	1 090	5 738	5.4	945	7 443		4 790	5 743	6.4	111	7 494	11.3
1991	8 600	6 423	11.9	899	7 897	6.1	4 920	6 318	10.0	152	8 248	10.1
1992	7 805	6 450	0.4	1 013	8 145	3.1	3 685	6 332	0.2	134	7 733	-6.2
1993	7 470	6 444	–0.1	617	8 224	1.0	3 706	6 251	–1.3	124	7 759	0.3
1994	6 609	6 532	1.4	681	8 084	–1.7	3 579	6 274	0.4	862	8 140	4.9

AVERAGE MONTHLY EARNINGS IN PRIVATE WELFARE SERVICES FIM 10,821

The private welfare services sector (education and training, research and development, health and welfare services, and non-governmental organizations) employed approximately 28,000 people, of whom about 25,000 worked on a full-time basis and about 3,000 on a part-time basis. Women accounted for about 80% of the total.

In November 1994, the average monthly earnings of these people for normal working hours was FIM 10 821, with men earning FIM 14,417 and women FIM 9262 per month. The average increase in earnings was 0.7% compared with the previous year.

According to the index of wages and salary earnings, the average monthly earnings in the sector during the second quarter of 1994 were FIM 10,181, that for men being FIM 11,181 and that for women FIM 9110.

Level of education failed to equalize the wage differential between the sexes

The level of education is a measure for the length of the period of education. The longer the period, the higher the level of education.

Of those employed in the private welfare services sector, some 30% held a university degree. On average, men were better educated than women. Nearly half of men had a university degree, while the corresponding figure for women was only one in five.

A high level of education did not even out the wage differential between men and women. Women with researcher training earned an average of 69% of what the corresponding men did, while women with secondarylevel education received about 80% of the earnings of their male counterparts.

***Source:** Salaries in private welfare services in 1994*

AVERAGE MONTHLY EARNINGS IN PRIVATE WELFARE SERVICES BY BRANCH, INCLUDING EMPLOYEES OF THE ECSI MEMBER COMPANIES AND THE LOCAL GOVERNMENT SECTOR

Branch	Private welfare services		ESCI employees		Local government employees	
	No.	earnings	No.	earnings	No.	earnings
Education and training			630[1)]	13 606	62 878	10 788
men			418	13 880	19 881	11 879
women			212	13 066	42 864	10 286
Research and development	2 187	12 359				
men	1 043	15 097				
women	1 144	9 862				
Health and social services	13 864	8 990	6 686	8 896	153 453	9 007
men	2 391	11 036	787	10 255	14 268	11 983
women	11 474	8 564	5 899	8 715	139 080	8 703
Non-governmental organizations	8 990	13 270				
men	4 141	16 197				
women	4 850	10 771				

1) The ECSI employees consist mainly of those engaged in professional adult education.

PERCENTAGES AND EARNINGS FOR NORMAL WORKING TIME BY LEVEL OF EDUCATION

Branch	Lower secondary	Higher secondary	Tertiary	BA/BSc level	MA/MSc level	Researcher training		No data available1
Health and social services	38.2	32.8	16.5	3.4	8.1	1.0	100.0	20.2
Research	9.4	29.3	6.6	1.6	40.0	13.1	100.0	19.4
Non-governmental organizations	16.2	36.1	12.9	6.5	26.6	1.7	100.0	22.1
Total	**27.9**	**33.6**	**14.3**	**4.4**	**17.5**	**2.3**	**100.0**	**20.8**
Earnings from normal hours								
Health and social services	7 765	8 557	9 783	10 808	15 296	19 315		
Research	7 814	8 875	1 0536	10 761	14 734	19 518		
Non-governmental organizations	10 339	11 312	11 957	15 578	18 630	27 475		
Total	**8 296**	**9 624**	**10 506**	**13 314**	**16 973**	**21 566**		

1) Column "No data available" includes those with a basic education.

TOTAL EARNINGS BY MONTHLY SALARIED LOCAL GOVERNMENT EMPLOYEES UP BY 1.1%

In October 1994, the average total monthly earnings for full-time work was FIM 9832, with men earning FIM 12,111 and women FIM 9179. Corresponding earnings for normal working hours for men were FIM 11,269 and FIM 8937 for women, respectively. In the education sector (C salary grades), the total average earnings were FIM 13,044, being FIM 13,756 for men and FIM 12 585 for women. Corresponding earnings of health-care personnel were FIM 9741, with men earning FIM 9957 and women FIM 9728.

All in all, the local government sector employed 404,096 salaried people, up 2.1% on the previous year. The number of long-term unemployed offered work by municipalities under local government re-employment schemes increased by 7287 from the previous year, the total being 20,282. At the same time, the number of permanent staff was cut by 1%, whereas there was an increase in the number of substitutes (about 4%), fixed-term (about 25%) and temporary employees (about 56%).

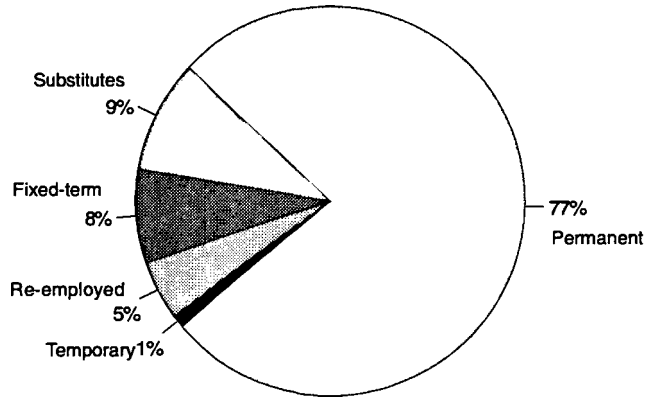
Young people under 24 account for only 2% of all full-time employees

The average age of local government employees is 42.3 years, 42.2 for women and 42.6 for men. The number of young employees under 24 years of age is only 5400. Their total monthly earnings were FIM 6880. Earnings increase with age: for women, average earnings rise steadily up to the age of 50 to 60 years, being about FIM 9680. For men, the increase in earnings continues in all age groups, reaching FIM 13,860 for those over 60 years of age.

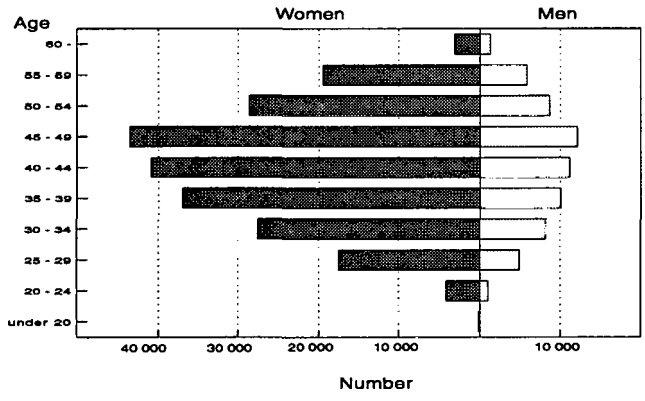
Source: *Monthly salaries of local government employees 1994*

In the two figures at the bottom, the amount of salaries is shown by age group.

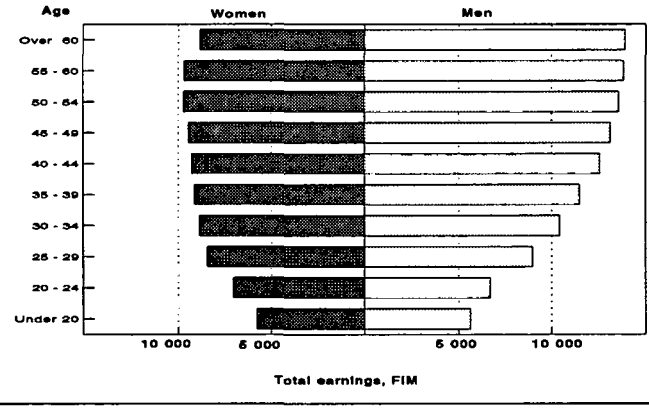
BREAKDOWN OF LOCAL GOVERNMENT EMPLOYEES BY EMPLOYMENT CONTRACT IN 1994



BREAKDOWN OF MONTHLY SALARIED LOCAL GOVERNMENT EMPLOYEES BY AGE



TOTAL EARNINGS BY MONTHLY SALARIED LOCAL GOVERNMENT EMPLOYEES



129,000 FULL-TIME CENTRAL GOVERNMENT EMPLOYEES

In November 1994, the central government had 128,773 full-time employees, their number having been reduced by about 24,000. This was mainly due to the incorporation of government agencies: In 1993, the Government Printing Centre, the State Computer Centre, and the State Catering Centre were all reorganized as joint-stock companies. In 1994, Finnish Post and Telecommunications and the Map Centre of the National Board of Survey followed suit. In 1994, some 14% of central government employees worked for government-owned enterprises (such as the State Clothing Factory), the respective figure in 1993 being 27%.

All in all, the number of employees drawing a fixed monthly salary declined by over 18%.

Full-time employees paid out of the national budget numbered 110,612. More than half of the women in this category served in administrative or clerical positions as departmental or office secretaries or in the tax administration.

Nearly half of men fell in the professional categories of technical, scientific or humanistic occupations, working as engineers, technicians or in the education sector.

One of the largest sector of administration was the Ministry of Education, which employed 26% of the total central government workforce, the corresponding figures for the Ministry of Defence and Ministry of the Interior being 15%.

In November 1994, the average monthly earnings of salaried central government personnel for normal working hours was FIM 10,664, with men earning FIM 11,553 and women FIM 9406.

Average total monthly earnings were FIM 11,072, being FIM 12,138 for men and FIM 9528 for women.

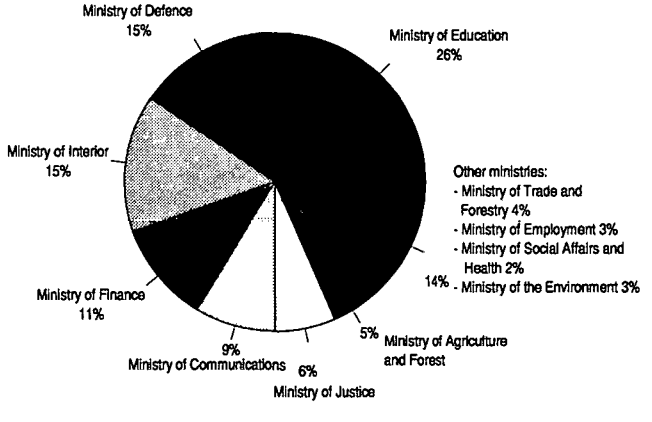
The increase in earnings compared with the previous year was 2.1%–2.2% for men and 1.8% for women.

***Source:** Average monthly salaries of central government employees 1994*

SALARIED CENTRAL GOVERNMENT EMPLOYEES IN 1990–1994

	Number				
	1990	1991	1992	1993	1994
In Finland					
Total	**194 602**	**194 195**	**189 874**	**179 484**	**146 445**
– Full time, full salary	169 444	172 235	169 546	152 714	128 773
– Part-time, full salary	9 588	7 807	8 250	11 820	10 679
– Part salary	15 570	14 153	12 078	14 950	6 993
Overseas, full time	1 192	1 183	987	963	956

NUMBER OF FULL-TIME SALARIED STAFF BY BRANCH OF GOVERNMENT IN 1994



EARNINGS FOR NORMAL WORKING TIME IN 1993-1994
Full-time staff of government-owned enterprises and agencies financed by the national budget

	Number		Monthly earnings		
	1993	1994	1993	1994	
	Total		Total		Percentage change
National budget	111 386	110 612	10 512	10 685	1.6
Govt. enterprises	41 328	18 161	9 370	10 535	12.4

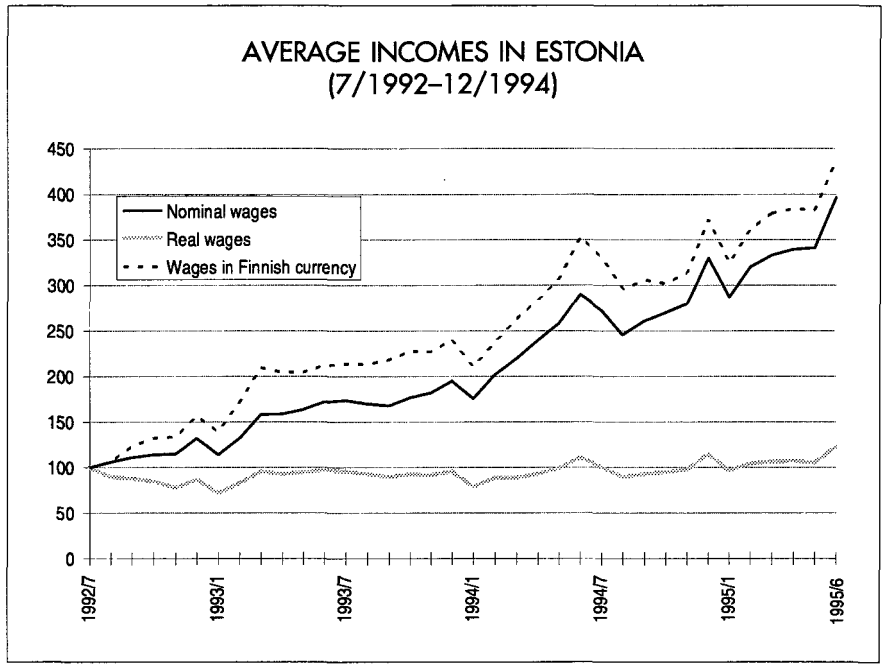
REAL INCOME IN ESTONIA VIRTUALLY UNCHANGED

During the two and a half years following the currency reform, nominal wages in Estonia have more than tripled. Annual increases have been in the region of 60 to 70%. Except for brief fluctuations, the rate of increase has remained steady. In July 1992, average wages and salaries per month in Estonia were around EKK 650 (FIM 220), while in early 1995 they had reached about EKK 2100 (over FIM 800). In terms of the Finnish currency, growth has been even faster owing to the fall of the mark in 1992–1993 against the Estonian crown, which is linked to the strong German mark. Since then, however, the Finnish mark has gained against the crown.

Real gross wages and wages may be somewhat higher, as private companies do not necessarily report all their payroll costs because taxes are determined by the wage bill. Comprehensive statistics on the trends in earnings levels in Estonia are only available for the period following the currency reform, and it is extremely difficult to compare the wages and wages paid under a socialist system to those paid in a market economy. Another factor that may defy attempts to determine the development of real earnings is the changes in consumption patterns.

Despite the high rate of increase in wages and salaries, the purchasing power of Estonians has hardly improved at all, offset as it is by the high rate of inflation. Taxes reduce gross earnings by about 30%. In June 1995, the minimum salary in Estonia was no more than EKK 450 (FIM 172).

As in many other countries, the cost of labour in Estonia is substantially higher than gross wages. During the first quarter of 1995, additional labour-related costs incurred by employers amounted to about 60% of gross wages. Consequently, the cost of labour was approximately EKK 3400 (FIM 1300) per month.



Wages and salaries in Estonia by branch

In Estonia, the highest salaries are paid in financing, where the average earnings during the first quarter of 1995 were approximately EKK 4500 (FIM 1700) per month. Earnings are also higher than average in the following branches: electricity, gas, and water supply; transport; and public administration. The lowest earnings are in agriculture, where the average in early 1995 was only slightly over EKK 1100 (FIM 430). In the hotel and restaurant business, too, earnings are clearly below the average.

Compared with the situation in 1992, the rate of increase in wages and salaries has been highest in public administration and transport, where nominal wages have risen 4.5-fold, while the average is 3.8-fold. In industry, forestry, and public services, earnings have quadrupled since 1992. In agriculture, the gap in earnings has increased because the wages "only" just short of tripled over the same period. Other branches where the rate of increase fell below the average compared with 1992 were the hotel and restaurant business, construction, and wholesaling and retailing.

Regional income levels in Estonia

Of all the provinces in Estonia, the wages and salaries are highest in Harju, with a majority of jobs in the capital city of Tallinn. At the end of 1994, the average earnings in the province of Harju were about EKK 2600 (FIM 900). The difference between the capital city area and the

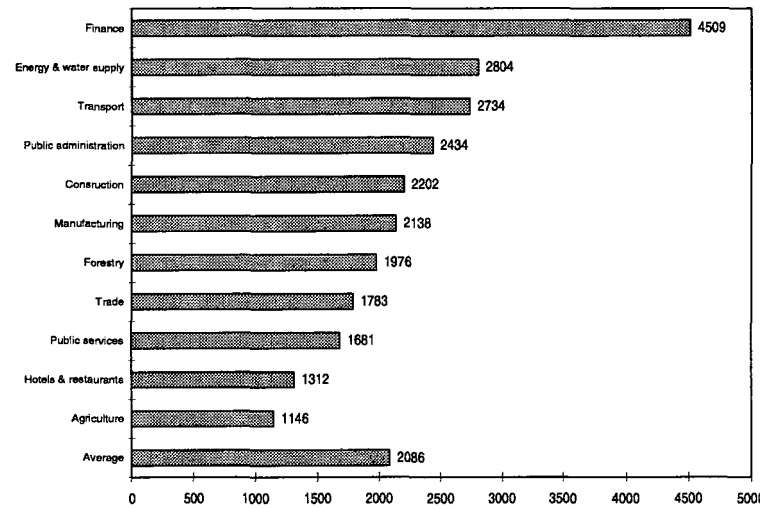
other provinces is so great that average earnings in all the remaining provinces fall short of the national average. It should be pointed out, however, that the price level is also higher in Tallinn than elsewhere in the country. In general, wages and salaries are highest in the northern coastal strip and lowest in the southern Estonia, near the Latvian border.

Since 1992, the rate of increase in earnings has been highest in Harju, indicating that the gap between the capital city area and the rest of the country is still growing. As late as 1992, the highest average wages and salaries were paid in Ida-Viru in northeast Estonia, which has a large Russian population, but since then the rate of increase has been slowest in this part of the country. However, at the end of 1994, average earnings in Ida-Viru were still the second highest in the country. In southern Estonia, dependence on agriculture has kept the earnings levels below the national average.

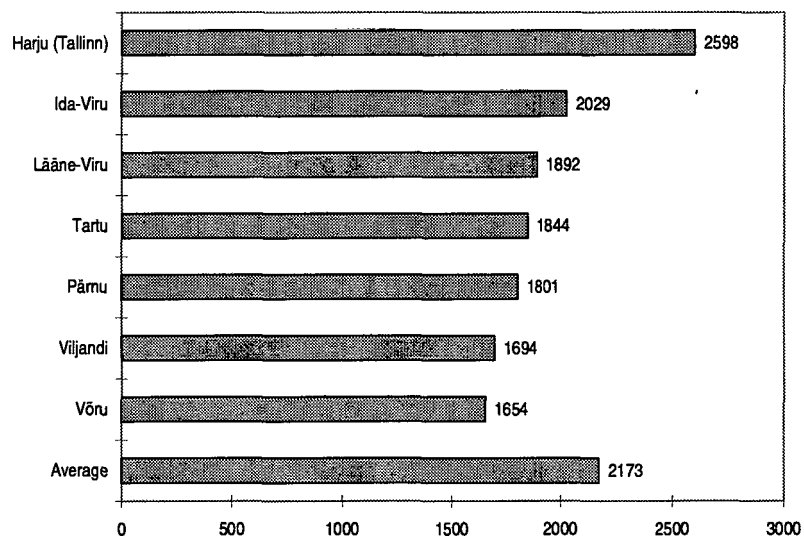
Sources:
Bank of Estonia information service
Economic indicators of Estonia 5/1995
Eesti Bank bulletin 4/95
Eesti piikondlik statistika 1992
Eesti statistika 3/95
International business statistics/Baltia 7/95
Statistika aastaraamat 1993

Average monthly earnings in Estonia EKK 2100: Monthly earnings are highest in financing and lowest in agriculture.

MONTHLY EARNINGS IV/1994 (EKK) BY BRANCH



MONTHLY WAGES IN THE LARGEST PROVINCES



13 LABOUR DISPUTES IN THE THIRD QUARTER OF 1995

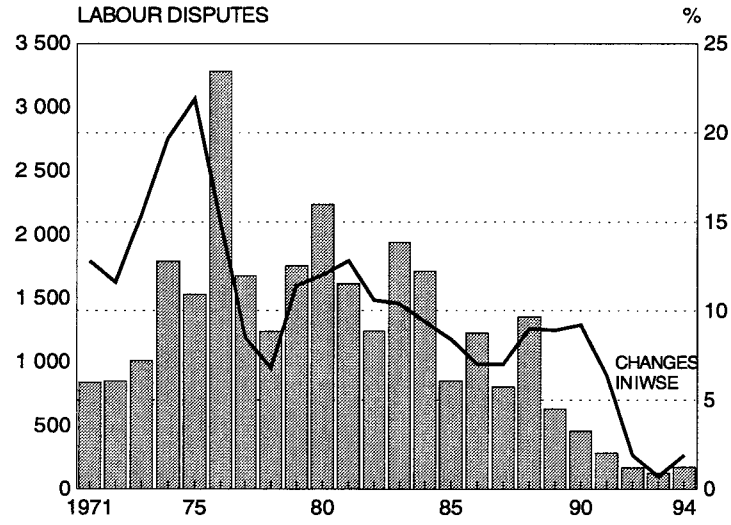
According to preliminary calculations, 13 labour disputes occurred in July and August 1995, involving a total of 4723 workers and resulting in the loss of 4820 working days. Compared with the same period in 1994, the number of disputes increased by two. The number of those involved increased more than sevenfold and the number of days lost more than tenfold. The number of working hours lost during the preceding quarter of the same year, however, was more than three times greater. Total losses of gross wages during the third quarter were slightly over two million Finnish marks.

All the labour disputes that took place in the third quarter of 1995 were in industry. The biggest subject of disagreement concerned cleaning in the paper industry, resulting in fixed-term stoppages at five paper and board mills all over Finland. A total of 1060 workers were involved, and the loss of working hours amounted to about 16,500. In addition, a oneday work stoppage to protest cutbacks in unemployment benefits was organized in Tampere; another stoppage, in support of those employed by Wallac, took place in the Turku area. In the shipbuilding industry, objections to layoffs brought suspension of work at the Kotka shipyard and at Finyards in Rauma.

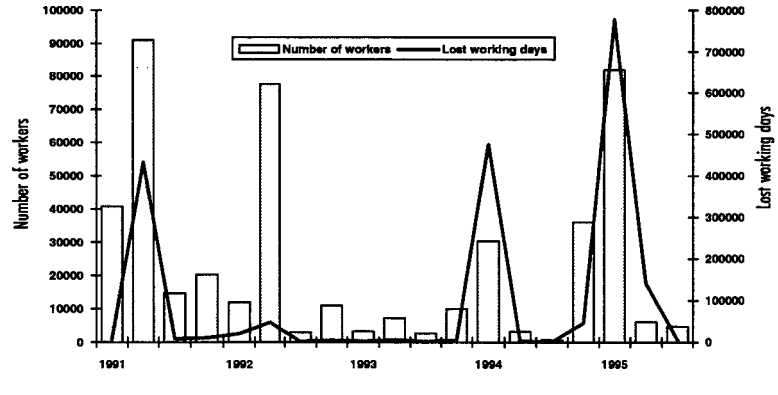
Those involved in labour disputes in the third quarter accounted for only 0.2% of the working population. One year earlier, the percentage was even lower. As most disputes consisted of one-day stoppages, the average number of lost working days was also one per worker.

For more details, please contact *Harri Nummila, tel. +358-(9)0-1734 3445.*

NUMBER OF WORKERS INVOLVED IN LABOUR DISPUTES AND NUMBER OF DAYS LOST FROM THE 1st QUARTER OF 1991 TO THE 3rd QUARTER OF 1995



DISPUTES AND CHANGES IN IWSE 1971-1994



NUMBER OF LABOUR DISPUTES, NUMBER OF WORKERS INVOLVED, AND LOSS OF WORKING DAYS FROM 1980 TO 1993 (IN 1994 AND 1995 BY QUARTER)

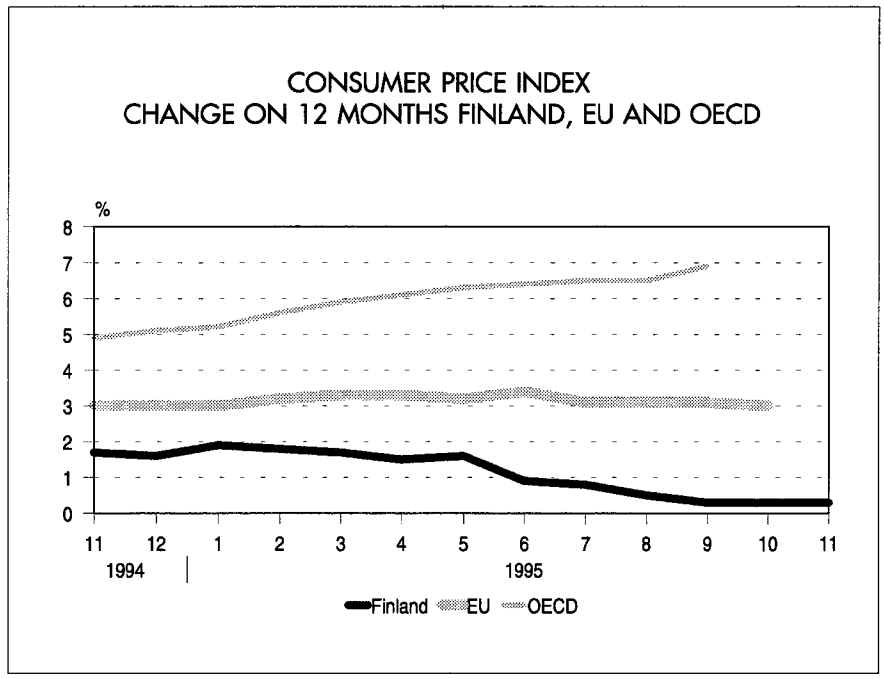
Year	Disputes	Workers			Working days lost	
		Number	Per dispute	% of workforce	Number	Days lost per worker
1985	848	171 350	202	7.0	174 399	1.0
1986	1 225	602 730	492	24.8	2 787 600	4.6
1987	802	99 290	124	4.1	130 890	1.3
1988	1 353	244 070	180	10.0	179 820	0.7
1989	629	158 480	252	6.4	204 210	1.3
1990	455	244 760	538	9.9	935 150	3.8
1991	284	166 770	587	7.1	458 340	2.7
1992	168	103 510	616	4.8	76 090	0.7
1993	124	22 920	185	1.1	17 040	0.7
1994	**171**	**70 540**	**413**	**3.5**	**525 700**	**7.5**
I	31	30 810	994	1.6	475 410	15.4
II	22	3110	141	0.2	3 910	1.3
III	11	640	58	0.0	440	0.7
IV	107	35 980	336	1.8	45 940	1.2
1995						
I	34	82 020	2 412	4.1	778 250	9.5
II	21	6 020	287	0.3	141 452	23.5
III	13	4 723	363	0.2	4 820	1.0

LABOUR DISPUTES, WORKPLACES, WORKERS, LOSS OF WORKING DAYS, AND WAGES BY BRANCH, 3rd QUARTER 1995

Branch	Disputes	Places of work	Workers	Lost working hours	Gross wages lost, FIM
D Industry	**13**	**13**	**4 723**	**38 557**	**2 141 730**
Food processing	1	1	113	1 644	82 200
Paper and board	6	6	1 192	17 603	993 570
Machinery and equipment	3	3	3 148	17 360	959 590
Shipbuilding and boatyards	2	2	215	1 488	84 800
Other manufacturing	1	1	55	462	21 570
Total	**13**	**13**	**4 723**	**38 557**	**2 141 730**

BIAS IN INFLATION

Efforts are being made harmonize the consumer price indices within the EU. The first harmonized EU indices, even if temporary, are due for publication in February 1996. Meanwhile, there is a debate going on in the USA and other countries as to the right method of assessing inflation. In Finland, the first steps are being taken to revise the national consumer price index.



Inflation in Finland

The inflation rate in Finland has long been the lowest in the EU countries. In 1994, consumer prices increased by an average of 1.1%. The inflation rate in November 1995 was a meagre 0.3%, suggesting that the average increase in prices in 1995 will be around one per cent.

Low inflation is partly due to the fall in food prices as a result of Finland's entry into the EU, and partly to the low demand arising from high unemployment. In November 1995, food was 8.6% cheaper than in November 1994, which helped curb inflation by 1.2 percentage points.

Discussion of bias in the consumer price index

Recently, concerns have been expressed in the USA as to whether the consumer price index (CPI) correctly reflects rises in living costs. A US Senate committee of experts claims that the index exaggerates the real change in prices by 1.5 percentage points annually. The issue is of great importance because the CPI is not only used as an economic indicator and deflator for other economic time series but also for adjusting wages, pensions, and social security benefits.

A true cost-of-living index measures the trends in the price of a consumer basket that gives the consumer a certain standardized benefit with respect to time, whereas the price index indicates the development of the prices of individual commodities in a representative standard basket of products. The real cost of living index is not calculated in any country anywhere in the world.

However, we can evaluate how much certain choices, such as the intervals at which the weightings of an index are revised, or the calculation methods used for the aggregation of price relations, cause bias in the index.

Usually, the consumer price index is calculated as a "fixed-price" Laspeyres index, where the trends in the price of a consumer basket conforming to the consumption patterns of a certain base year are monitored, i.e., the basket valued at the prices of the base year is given as one hundred, and then the development of prices in the basket weighted according to consumption percentages is followed for a given period of time. For example, the weightings of the Finnish consumer price index are currently based on an extensive household survey carried out in 1990. The distribution of consumption by households is checked every five years. In the United States, the consumer price index is a fixed-base Laspeyres index where the distribution of weightings is based on a household survey carried out in 1982-84.

Sources of bias

What is it, then, that causes the difference between the consumer price index and the real cost of living index? At least five different sources of bias can be listed:

1) Bias due to substitution. Consumers vary their purchasing patterns in response to the chang-

ing price relations between commodities. If, for example, the price of pork declines sharply while that of beef remains the same, people will buy more pork. This type of bias is found in all fixed-based indices.

2) Bias due to the index calculation method: This occurs if incorrect methods are used to aggregate price relations from those prevailing for individual products. Some of the calculation methods tend to exaggerate the difference, a bias that was detected in the United States.

3) Bias due to changes in quality: The properties of commodities develop, and old models are replaced by new ones. With time, existing models disappear from the market and new ones are introduced. The new models differ from the old to some extent. They may be more efficient, better designed, or they may offer new features. A case in point is the remote control for TVs. When the old type of TV sets is no longer available in the shop included in the sample, the type will be replaced by a new model equipped with a remote control.

If the effect of an explicit change in quality, in this case the remote control, is ignored and the price of the commodity is not adjusted accordingly, an upward bias will occur.

The bias may also be negative. For example, if the price of a new commodity is the same as that of the old commodity but its quality is worse, the price remains the same even though it should increase.

4) Bias due to changes in the choice of retailer: Consumers switch to shops with lower prices. When the consumer price index is computed, the price data are collected, where possible, from the same retail outlets, and if the sample is not updated at sufficiently frequent intervals, the index will distort actual price trends. The US index was found to be defective in this sense.

5) Bias due to new commodities: Completely new commodities are introduced, or the assortments produced or available in shops grow from year to year. Video rentals, new cable TV channels and mobile phones are examples of such commodities.

However, if the bias in the US consumer price index were adjusted downward in response to the effect of new commodities, it would probably not correctly reflect the redistribution of income to the poor, who mostly consume basic commodities.

The UK and Canada, among others, use a chain index, where both the weightings and index commodities are revised every year. The biases of these indices have also been evaluated, and the results are somewhat contradictory. However, the aggregate bias is much smaller than in the USA; some researchers suggest that it can be even less than 0.5% of the annual change.

BIAS IN THE US CONSUMER PRICE INDEX
According to the US Senate committee

Source of bias	Estimated	Range
Substitution	0.3	0.2–0.4
Outlet sample	0.2	0.1–0.3
Calculation method	0.5	0.3–0.7
Changes in quality	0.2	0.2–0.6
New commodities	0.3	0.2–0.7
Total	**1.5**	**1.0–2.7**

What about Finland?

The mean bias of the Finnish consumer price index was evaluated for food from 1991 to 1994. The sample of commodities was assumed to account for 0.07% and the sample of retail outlets for 0.02% of the annual variation. As a result of an estimate of sampling error, we obtain the bias with regard to outlet, commodity, and weighting. However, it does not reveal the effect of other bias, such as bias caused by commodity or retail outlet type weightings or changes in quality.

1) The bias due to substitution or, more generally, the changes in consumption patterns is probably lower in Finland than in the United States in normal years, but greater than in the UK and Canada at times when households find themselves in more or less the same business cycle.

According to a survey carried out by Eurostat using data on Sweden, exaggeration of the rate of increase due to the age of the weightings is approximately 0.1% of the annual change at weightings that are one year older than other weighting.

In Finland, the weighting structure of the index dates back to 1990. Comparison of this last "good" year before the recession to the data accumulated in the course of the 1994 household survey reveals that the share of housing costs has increased while those of transport, telecommunications, travel, clothing, footwear, other expenses and redistributed income have declined. Out of total expenses, the percentage of food has remained virtually unchanged.

As a result of Finland's entry into the EU, the prices of certain foodstuffs decreased considerably in 1995. In this situation, the bias due to substitution may increase. However, the weightings used in the index are value-based shares, and a fall in prices may partly be compensated by increased consumption. The price of fresh meat, butter, eggs, margarine, oils, and sugar has greatly declined since then.

In November 1995, the price of pork ribs had declined by 27%, pork chops and pork tenderloin by 25% and minced beef by 24% relative to the level of November 1994. Similarly, the fall in the price of bread and cereal greatly con-

tributed to declining price levels. While the consumption of meat has increased considerably, that of fats and oil has decreased despite the drop in prices.

2) Bias due to the index calculation method: The micro-index calculation method used to date, indicating the average value of price relations, may exaggerate price increases when discount and normal prices alternate, because the changes are not symmetrical in terms of percentages. According to a survey carried out in Sweden, the calculation method has a long-term effect on index development in that it causes an upward bias. As of 1996, Finland will introduce a new micro-index calculation method, the geometric average, which does not cause an upward bias and is theoretically more sound.

3) Differences in the ways that people react to changes in quality result in major differences in national indices. They may also cause systematic bias in the long run. The effects of changes in quality on price is evaluated when a commodity must be replaced by a new one because the former is no longer available. In Finland, this evaluation is performed by those who collect the price data, and double-checked by auditors who may also rely on other sources of information.

A very rough survey was carried out in Finland last year to assess the change in the quality of commodities, consisting of men's clothing and home electronics, that had occurred from 1990 to 1994. The results suggest that price increases may have been exaggerated for these commodities. When the price of a new commodity was higher than that of an old commodity, quality was more often estimated to be equal rather than different.

When quality is assumed to be identical, the price analysis is carried out by simply comparing the prices of new and old commodities, which means that the full effect of the increase in price is reflected in the index. If the quality assessment is performed too frequently when the price increases, as compared to a situation where the price decreases, the trends in prices can be exaggerated. However, it is completely feasible that the estimates are correct, and a closer analysis is called for before anything definite can be said about this phenomenon.

4) As far as the bias caused by people changing retailers is concerned, it should be pointed out that "discount stores" are included in the sample in Finland. It was insufficient consideration of these outlets, where prices are lower than elsewhere, that caused the bias in the US index.

5) The bias due to new commodities is difficult to assess. Following the increasing popularity of mobile phones, their effect on the index was evaluated in Finland. If they had been included, the change in the consumer price index over the past couple of years would have been 0.06 percentage points lower than it actually was. However, this rough calculation takes no account of other possible effects, such as mobile phones replacing fixed-wire telephones.

At exceptional times, commodities have been added to the Finnish index. For example, the motor vehicle user's fee was added in June 1994.

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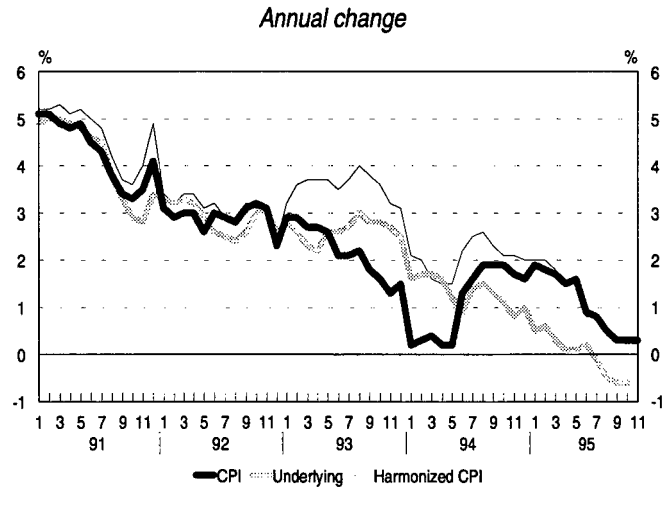
CONSUMER PRICE INDEX, INDICATOR, OF UNDERLYING INFLATION AND FIRST-STAGE HARMONIZED INDEX, 1990=100

	CPI	IUI	1st stage
1990	100	100	100
1991	104.3	104.1	104.7
1992	107.4	107.1	107.9
1993	109.7	109.9	111.8
1994	110.9	111.4	114.1
11/1995	111.9	111.4*	115.2

*October

CPI = consumer price index
IUI = indicator of underlying inflation
1st stage = modified CPI from which the EU 1st stage commodities have been eliminated (the base year for the 1st stage index is 1994=100).

Methods of computing the indices have been explained in the following publications: Consumer Price Index, Methods and Practice; Net Price Index and Tax Rate Index



RECORD RATE OF INCREASE IN EXPORT PRICES FOR PAPER AND BOARD

From October 1994 to October 1995, the export prices for paper and board increased by 27.1%. This exceptionally high rate of increase continued throughout 1995. In December 1994, the annual change was still negative, indicating a decline of 0.2%. In January 1995, the trend was already reversed, showing an increase of 4.6%.

When the annual rate of variation in the export prices for paper and board is analysed since 1976, the rate of change was highest from May 1995 onwards, reaching an all-time high of 27% in October. Before that, the highest rates of increase were recorded for January 1985 (14.6%), as well as for July 1977, November 1980, and December 1980, when it was about 14%.

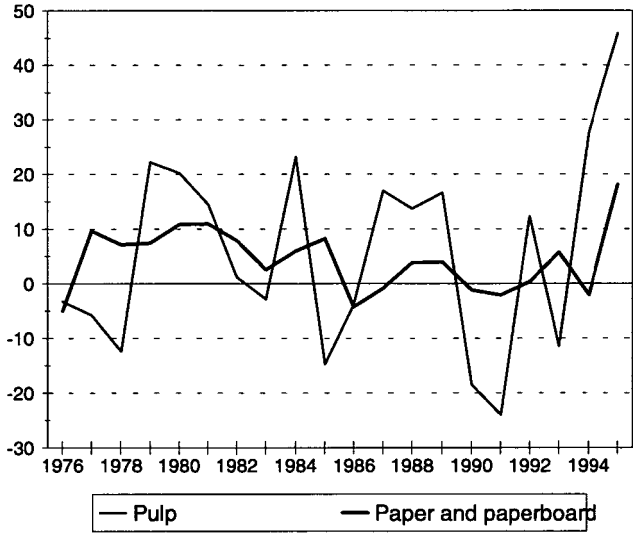
The export price for pulp increased from October 1994 to October 1995 by 33.2%. When the annual rates of variation are examined since 1976, the change in December 1994 — indicating an increase of 60.8% — was the highest for this period.

Great fluctuations are typical of the development of the price for pulp. The biggest decreases in prices took place during 1990 and 1991 — from September 1990 to May 1991, the annual change was at least 29.9%. An all-time record level was reached in January 1991, when the annual drop was 38.4%

From October 1994 to October 1995, all exports prices increased by 9.2%. The increase was, above all, due to paper and board, but the prices for pulp and basic metals increased as well. From September to October, export prices rose by 0.8%.

ANNUAL VARIATION IN THE EXPORT PRICE INDEX FROM 1976 TO 1995

1995 based on preliminary data



Import prices declining

From October 1994 to October 1995, import prices fell by 0.4%, to be followed by a further decline of 0.7% from September to October.

The decline in import prices was highest for investment goods, 4.4% since October 1994, but imported consumer goods also became cheaper, by 1.1%. In contrast, the prices of raw materials and productive goods increased by 1.4%.

Of investment goods, the import prices for machinery and equipment fell by 3.8%, and those for electro-mechanical products and optical equipment by 5.5%. However, the prices of vehicles increased by 0.3% relative to October 1994.

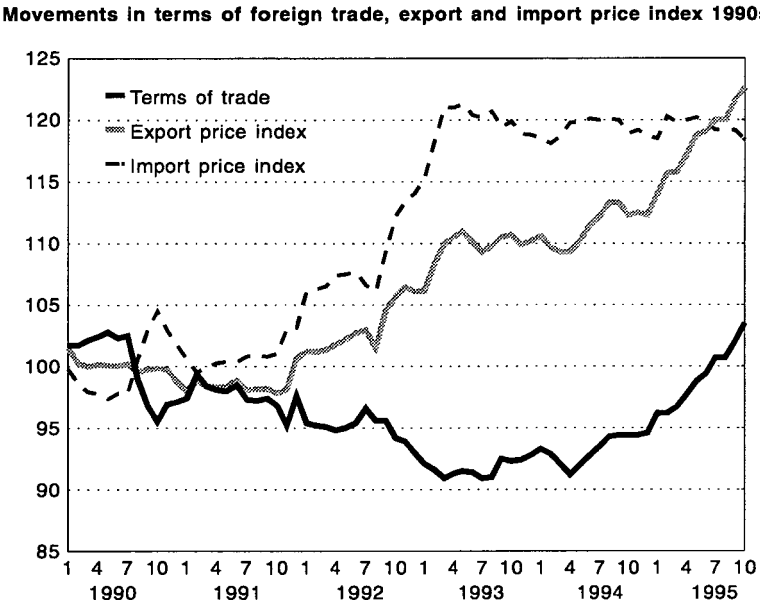
Of all imports of investment goods in 1994, 24% was invoiced in German marks, 21% in Finnish marks and 19% in US dollars. From October 1994 to October 1995, the Finnish mark gain by 1.8% against the German mark and 8.7% against the US dollar.

Terms of trade improved for 18 months

Since April 1994, the terms of trade, indicating the relationship between export and import prices, have developed favourably for Finland. The terms of trade computed from the export and import price indices worked out by Statistics Finland rose from April 1994 to October 1995 by 13.5%, meaning that export prices increased relative to the prices of imported goods.

Since October 1994, the index rose by 9.6%.

TERMS OF TRADE – DEVELOPMENT OF EXPORT AND IMPORT PRICE INDEX, 1990=100



nual increase in the HWWA index was still about 25%.

The decline was due to the fall in the prices of raw materials for energy and food and tropical beverages, such as coffee and sugar. Within one year, energy raw materials fell by 1.7% and food and tropical beverages by about 9%.

By contrast, the price of raw materials produced by agriculture and forestry, such as pulp and cotton, increased by 10.7% in a year and that of non-ferrous metals, such as copper and aluminium, by 7.6%. In June 1995, the annual change in the index for agriculture-derived raw materials was still about 33% and for non-ferrous metals about 25% in August 1995.

***Source:** Producer price indices*

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Change in wholesale prices negative

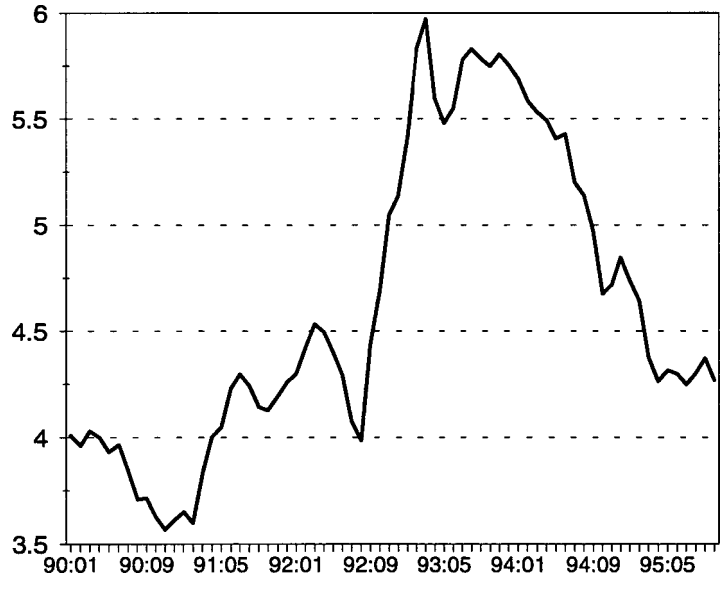
In July 1995, the annual change in the wholesale price index turned negative, for the first time since late 1991. From October 1994 to October 1995, wholesale prices fell by 0.5%. This is mainly due to the decline in the prices of food, beverages and agriculture products, but the fall in prices of electro-mechanical products and optical equipment and machinery and equipment also played a role in this.

From October 1994 to October 1995, prices of foodstuffs and drinks decreased by 10.3%. The decline from December 1994 to October 1995 was 9.7%.

Falling trend in raw material prices on the international market

The annual change in the HWWA index measuring the world-market prices of raw materials in dollars was also negative from October 1994 to October 1995, the fall being 0.3%. As late as April 1995, the an-

MEAN EXCHANGE RATE FOR THE US DOLLAR, FIM JANUARY 1990-OCTOBER 1995



FALL IN THE PRICES OF DWELLINGS CONTINUED

During the third quarter of 1995, the prices of dwellings in existing blocks decreased by 2.2% relative to the second quarter. The decline in the Greater Helsinki Area was 3.5% and elsewhere in the country 1.7%. On the whole, the trend is steady but slightly falling. House prices remained more or less unchanged in Kouvola, Hämeenlinna, Mikkeli, Joensuu, and Oulu. A clear drop of 4 to 6% was recorded for the Helsinki suburbs and Vantaa. In Pori, the decline in prices was 8.3%. The great variations in the index may be due to changes in quality, assuming that the dwellings sold during each quarter are different and the number of sales is low.

In Helsinki, the average price per square metre for dwellings in existing blocks of flats was FIM 7200, the corresponding figures for Espoo and Vantaa being FIM 5900 and FIM 4400, respectively. In the Helsinki city centre, the average price was about FIM 9400. In Tampere, Turku, and Oulu, the average price was FIM 4500 to 4600. In Pori, Kouvola, and Kotka, one square metre cost FIM 3500.

The number of transaction recorded in the statistics increased clearly by 20 per cent compared with the previous quarter. The data are based on the price statistics compiled by Statistics Finland, using the material supplied by real estate agents.

Source: *House prices 1995, 3rd quarter*
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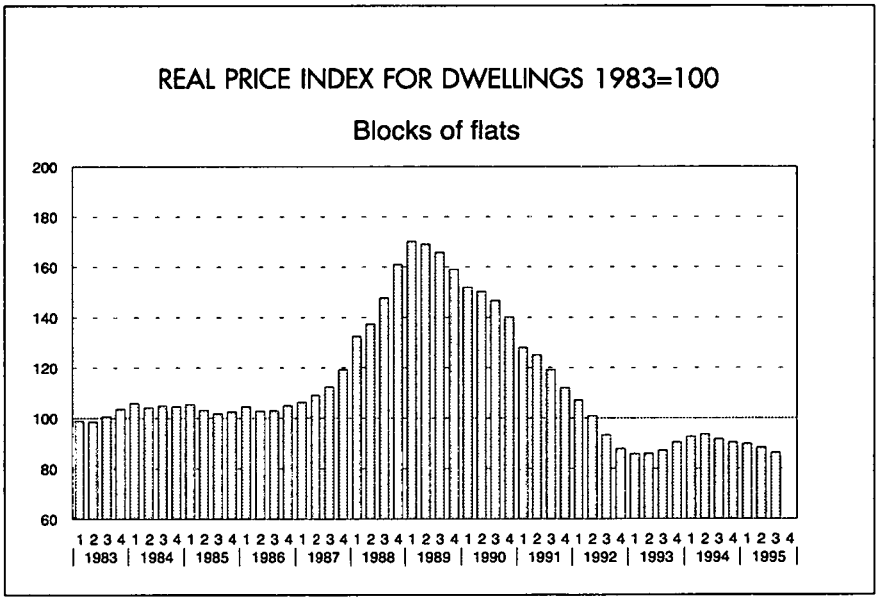
Real housing prices peaked in the spring of 1989. Currently, real prices remain at the same low level as in the autumn of 1992.

MEAN UNENCUMBERED PRICES OF EXISTING APARTMENTS PER SQ. METRE AND PRICE LEVEL INDICES (1983=100), 3rd QUARTER, 1995

Town or city	FIM/m²	Nominal price index		Real price index**	Change from previous quarter#	No. of sales recorded
			%		%	lkm
Koko maa	5 113	139.0	-2.2	86.3	-2.2	3 445
Pääkaupunkiseutu	6 678	125.3	-3.5	77.8	-3.6	1 172
Muu Suomi	4 307	147.6	-1.7	91.6	-2.4	2 273
Helsinki	7 177	126.8	-3.1	78.8	-3.1	865
Helsinki-1	9 356	150.8	-1.9	93.6	-2.0	182
Helsinki-2	7 841	130.4	-1.6	80.9	-1.6	222
Helsinki-3	6 344	118.2	-4.8	73.4	-4.9	340
Helsinki-4	5 023	121.3	-3.8	75.3	-3.9	121
Espoo+Kauniainen	5 910	132.6	-2.1	82.3	-2.1	175
Vantaa	4 420	111.0	-6.2	68.9	-6.3	132
Kehyskunnat*	4 006	128.1	-1.9	79.5	-1.9	163
Tampere	4 515	147.4	-2.4	91.5	-2.5	236
Turku	4 642	135.1	-1.4	83.9	-1.4	277
Pori	3 693	162.4	-8.3	100.8	-8.4	73
Lappeenranta	4 875	150.6	1.1	93.5	1.0	98
Kouvola	3 543	145.2	0.0	90.1	0.0	57
Lahti	3 847	136.1	-3.2	84.5	-3.2	153
Hämeenlinna	4 341	170.8	-0.8	106.0	-0.9	36
Kotka	3 436	149.2	-1.0	92.6	-1.0	37
Rauma	4 094	190.4	-1.3	118.2	-1.4	55
Kuopio	4 811	148.3	-1.6	92.0	-1.6	162
Jyväskylä	4 917	135.0	-2.2	83.8	-2.2	94
Vaasa	4 909	150.8	-5.7	93.6	-5.8	39
Mikkeli	4 353	158.9	0.9	98.6	0.9	56
Joensuu	4 984	139.8	0.7	86.8	0.6	97
Oulu	4 583	145.4	-0.8	90.3	-0.9	197
Rovaniemi	3 901	118.4	-2.3	73.5	-2.4	68

Change calculated from indices weighted according to type and supply of dwellings in the area
*Hyvinkää, Järvenpää, Kerava, Kirkkonummi, Nurmijärvi, Riihimäki, Sipoo, Tuusula, and Vihti
**Index of prices in real terms based on 1983=100 for consumer prices in general
Helsingin aluejako on selostettu julkaisussa.



RENTS INCREASED BY 2% IN A YEAR

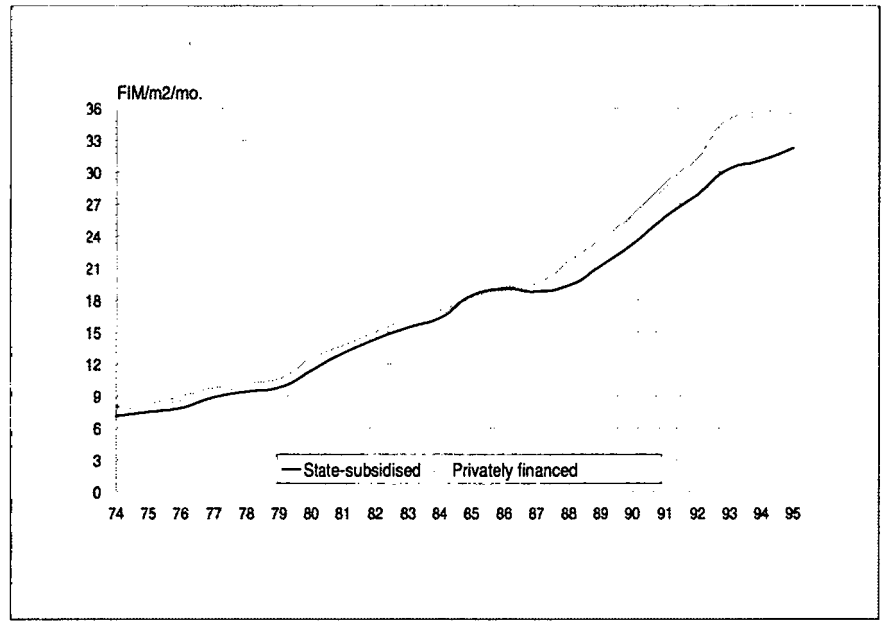
From April 1994 to April 1995, rents for dwellings increased by 2.1%. Over the same period, rents for state-subsidized apartments rose by 2.9% and those for privately funded apartments by 1.5%. The figures are based on statistics for 7400 rented dwellings.

The average monthly rent for a state-subsidized apartment was FIM 32.20 per square metre, while the corresponding figure for privately financed dwellings was FIM 35.60. In Helsinki, those occupying a single-room flat for less than three years paid an average rent of FIM 59 per square metre. For a similar apartment that had been leased for a period of over 10 years, the average rent was FIM 42 per sq.m. Rents per sq.m. are highest for small apartments in city centres. In the Greater Helsinki Area, average rents are 23% higher than elsewhere in Finland.

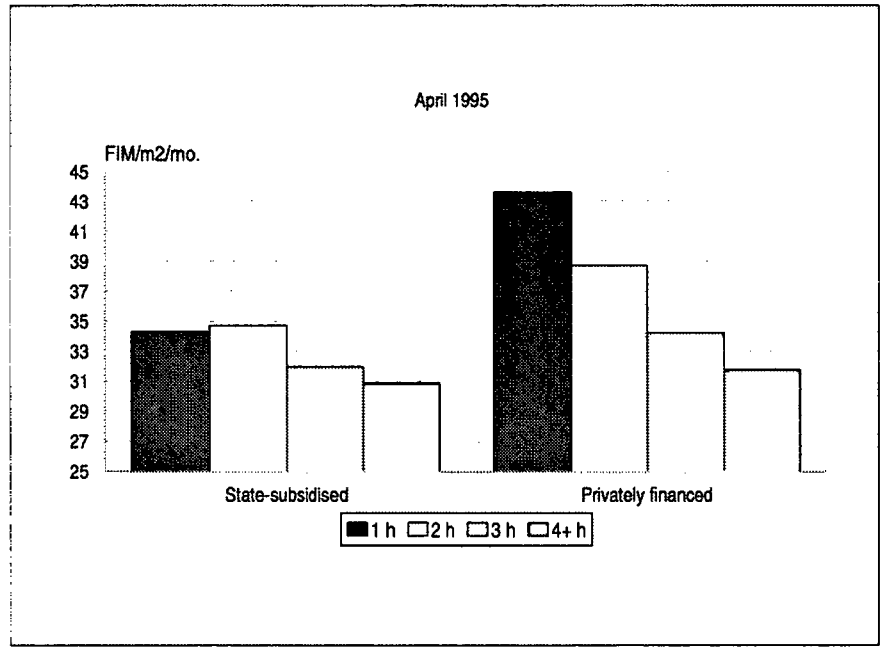
Rents for privately financed apartments remained at more or less the same level as those for state-subsidized apartments until 1987, when the former began to increase more rapidly. For state-subsidized apartments, the differences in rent levels for different types of apartments are relatively small.

A new law on the rental of dwellings was enacted in May 1995. A survey of the effects of the new law will be carried out in September and published in October 1995.

RENTS FOR DWELLINGS 1974–1995



RENT ACCORDING TO THE NUMBER OF ROOMS



Source: Rent statistics 1995

SHARP RISE IN PRICES IN THE BALTIC COUNTRIES

Consumer price index

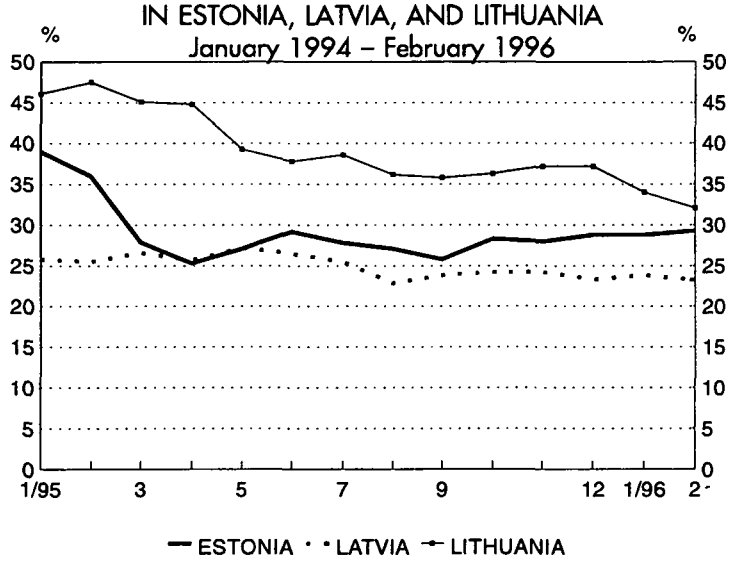
The first steps to develop a Western-style consumer price index were taken in the summer 1989, in accordance with instructions issued from Moscow. However, the indices published from 1989 until the spring of 1992 are incomplete and incomparable with current indices. Also, consumption patterns have undergone considerable changes since then. The original index only included the consumer basket required for a minimum income level. For example, alcohol, tobacco, and cars were excluded.

In the summer of 1992, the consumer price indices in the Baltic countries were revised, mainly with the assistance of IMF consultants. At that time, either May or June 1992 was selected as the base date for the indices. Largely, the consumption structure dated back to 1991, when most of the prices were still regulated. However, classifications, index coverage and principles of calculation could be brought closer to OECD standards.

The indices were revised again in late 1993 – early 1994. The weightings of indices dated back to 1992 and 1993. The classifications used in the indices were now identical with the commodity classifications used in Europe in general. It is safe to say that after this revision the indices have been relatively reliable and comparable as regards the corresponding indices of the OECD countries.

Sharp changes in consumption patterns and price relations continue to present problems with regard to the reliability though. The weightings of the indices will be revised next time as of the beginning of 1996.

ANNUAL CHANGE IN THE CONSUMER PRICE INDEX IN ESTONIA, LATVIA, AND LITHUANIA
January 1994 – February 1996



In terms of structure, private consumption in the Baltic countries during the period 1992–1993 resembles that of Finland in the 1920s. As is typical of less developed countries, expenditure on food accounts for a major share of consumption. Of all Baltic states, Estonia is clearly the most developed and Lithuania the least developed in this respect. The table shows the weightings of current consumer price indices in Finland and the Baltic countries. (Situation at the year-end 1995). Current consumption patterns do not necessarily tally with the data given in the table as the Baltic countries are concerned.

Upon completion of the first stage of dismantling price controls in late 1992, the annual inflation rate in the Baltic countries reached 1200 to 1400%. After the worst price surge and successful currency reforms, annual inflation dropped first in Estonia and then in Latvia to around 50% in the autumn of 1993, reaching the same level in Lithuania one year later.

WEIGHTINGS OF THE CONSUMER PRICE INDEX IN FINLAND, ESTONIA, LATVIA, AND LITHUANIA (Percentage)

	Finland	Estonia	Latvia	Lithuania
Food	15.5	37.9	44.2	57.5
Beverages and tobacco	7.2	4.3	5.8	8.3
Clothing	6.0	7.6	8.3	9.6
Housing	19.8	19.7	14.8	8.1
Household	6.1	3.2	3.0	3.1
Health	3.3	2.0	3.3	0.9
Transport	18.2	13.0	7.9	5.9
Leisure	10.1	6.6	6.2	2.0
Other	13.8	5.7	6.5	4.6
Total	*100.0*	*100.0*	*100.0*	*100.0*

When inflation in the Baltic countries is discussed, people still speak in terms of monthly changes in the index. A variation of 0 to 2% means a "good" month, and any change exceeding 3% is a "bad" month. In the OECD countries, inflation is measured as 12-month variation in the consumer price index.

Currently, annual change in the index is nearly 28% in Estonia, about 23–24% in Latvia, and about 35% in Lithuania.

Official forecasts in all Baltic countries predict a clear slowdown in the annual increase in the inflation rate or the consumer price index. Forecasts predict an annual change of 15–20% for Estonia, 10–20% for Latvia and 20–30% for Lithuania.

The declining inflation in the Baltic countries does not mean that the economies of the countries would have reached a state of equilibrium and that the inflationary pressures would have eased up. The reason for the decline is rather the lower purchasing power of households.

Producer price index for manufactured products

Work to revise the producer price indices for manufactured products did not really commence until 1994. Prior to this, the concepts of price, classification, etc., were based on systems applied under Soviet rule, though the UN ISIC classification had been used for a couple of years.

The problem with the producer price index for manufactured products is that private companies are far less active in providing information than Finnish enterprises. Another problem is that price information was gathered using the ISIC 4-digit system, meaning that all the prices were average prices for each particular branch. For example, the index for fresh meat consisted of the average of the prices for various types of meat. Currently, price information is still gathered at the ISIC 4-digit level, but in practice the subclassification used is a more detailed HS classification.

The trends in producer prices for manufactured goods have followed the consumer price index. Price increases peaked in late 1992 when the annual rate of inflation, expressed in terms of producer prices for manufactured products, was 2000 to 2500%. From these heights, the figures declined to about 40% in Estonia and Latvia at the start of 1994 and in Lithuania in the summer of 1994.

During the past few months, annual change in the producer price index has been 20–25% in Estonia and Lithuania and 15–20% in Latvia.

Export price index

At present, the development of the export price index is getting underway in the Baltic countries. In Estonia and Latvia, the compilation of the export price index has already been started. In Estonia, the price data are provided by enterprises, where as in Latvia they are obtained mainly from the export statistics of the customs authorities. In Latvia, too, part of the data are obtained from enterprises. The compilation of the export price index has been hindered mainly by the low quality of the price data obtained from the customs authorities and the "cold" attitude of export enterprises towards price enquiries. In Lithuania, the intention is to get the compilation of the export price index started during the current year. In Linthuania as in Latvia the index would be based principally on the price information obtained from the customs authorities.

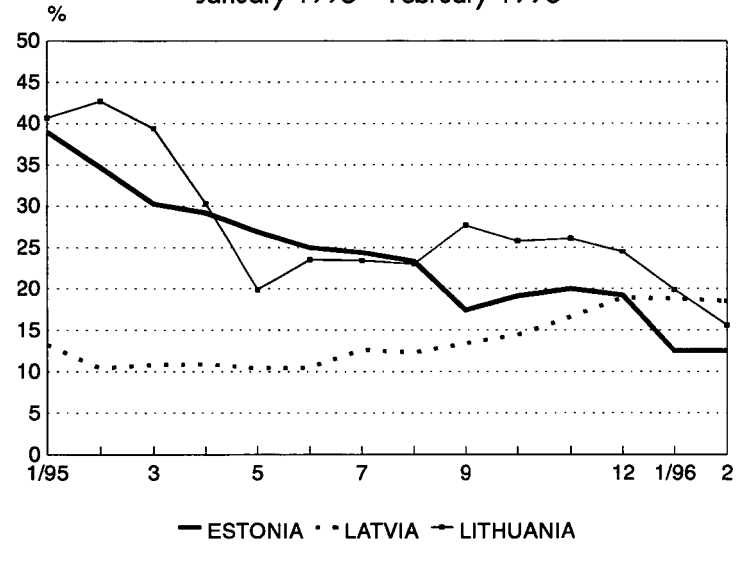
The compilation of the import price index will not be brought to the fore until the problems with the export price index have been solved.

The annual change in export prices in Estonia has been about 13% in the past few months and that of Latvia has varied from 13 to 18%.

Building cost index

At present, building cost indices are being produced in Estonia and Lithuania. Unbroken time series are not available for the index from the beginning of the 1990s. Moreover, the old indices are not fully com-

ANNUAL CHANGE IN THE PRODUCER PRICE INDEX FOR MANUFACTURED PRODUCTS IN ESTONIA, LATVIA, AND LITHUANIA
January 1995 – February 1996



parable, in terms of content, with the Finnish building cost index or the current indices of these two countries.

In Estonia, the production of the current quarterly index for building costs (1993=100) has been going on for about a year (the first being for the 1st quarter of 1994). In Lithuania, the monthly building cost index 1993:7-12=100 has been produced since July 1995. The base yar of the building cost index to be compiled in Latvia is 1990. Currently, the revision of the index method is going on in Latvia.

In terms of accuracy, the current construction cost indices of Estonia and Lithuania are good, though the number of categories for building types is still limited. This is mainly due to the fact that "normal" construction activity has been very low since the newly-won independence. Basic renovations play a clearly more important role than construction of new buildings.

Picking and choosing from old data, it appears that the value of the Estonian construction cost index 1980=100 currently stands at 20,000, meaning that construction cost have increased 200-fold since 1989. In Lithuania, the index based on 1990 stands now at 40,000, suggesting that costs have increased 400-fold since 1990. At present, the point figure of the Latvian building cost index 1990=100 is about 16,000 or 160-fold compared to 1990.

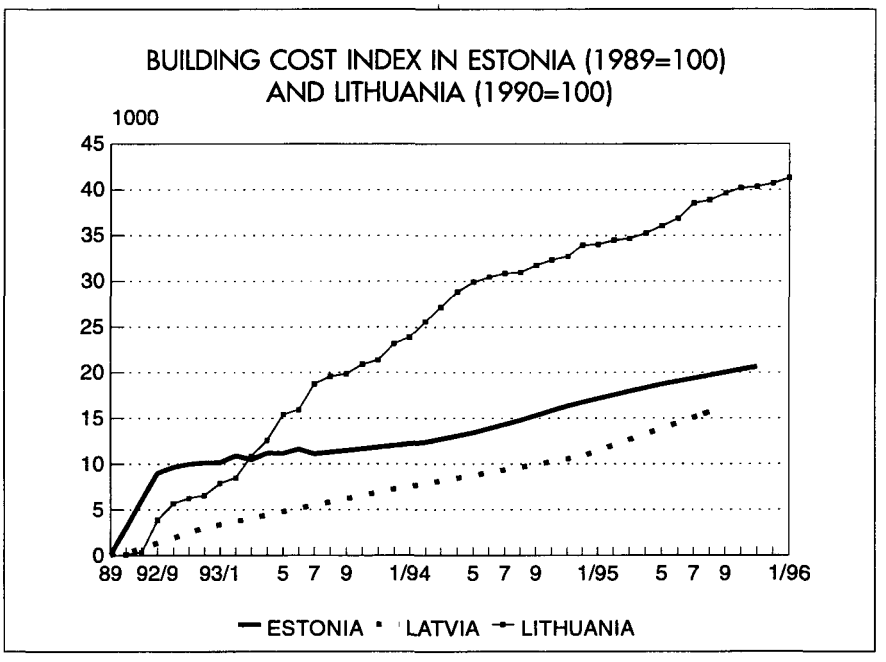
At the end of 1995, annual change in the building cost index in Lithuania is about 24% and that of Estonia and Latvia slightly over 30%.

Trends in wages

Data on wage trends in the Baltic countries are available as of the end of 1991. A the fitgure enclosed/ below/above shows, the rate of increase in real earnings has been positive in all the Baltic state since 1993, meaning that wages have risen faster than prices. From the last quarter of 1991 until 1993 the real purchasing power of the working population declined by about 40% in Estonia.

In Estonia, real earnings have risen by about 13% from 1993 until today, while in Latvia they have risen just under 10% and in Lithuania by about 16% from 1993.

Since the spring of 1992, Statistics Finland – with partial funding from the European Union (EU) and the European Free Trade Association (EFTA) – has been involved in developing the price and cost indices described above. A number of other parties are also involved, including the IMF and OECD.



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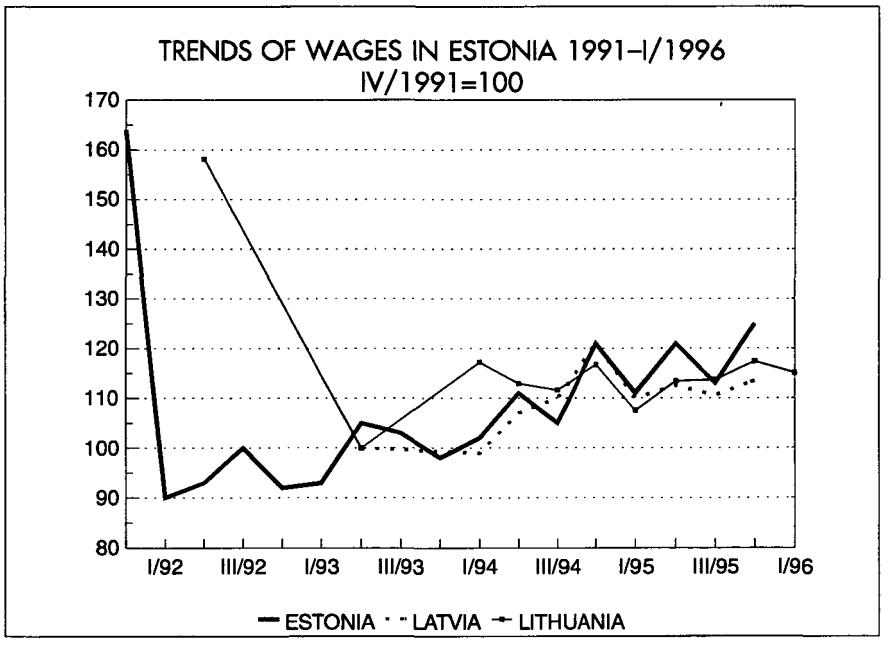
For more details, please contact ***Ilkka Lehtinen, tel. +358-(9)0-1734 3478.***



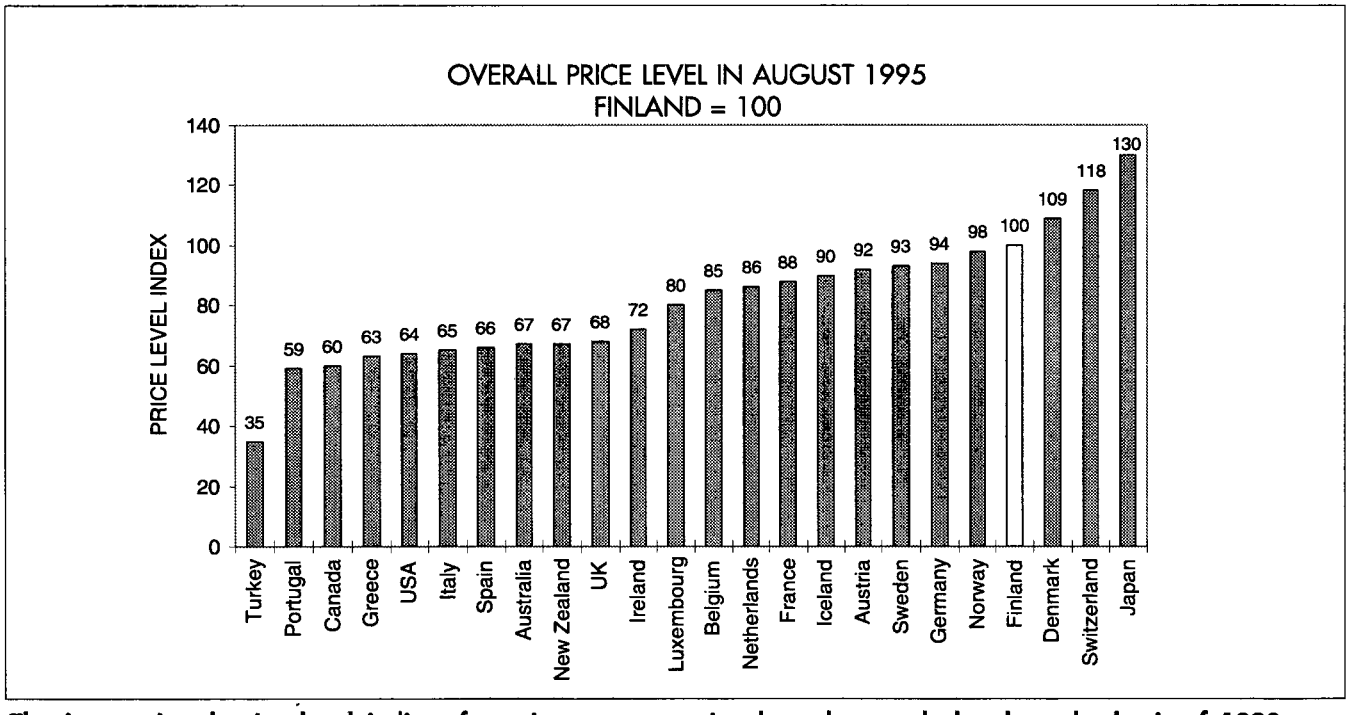
FINLAND ONE OF THE MOST EXPENSIVE OECD COUNTRIES

Surveys of prices levels compare similar products in different countries. In 1990, Finland was the most expensive country in Europe and the OECD in terms of private consumption. A couple of years later, Finland had dropped to fourth place. The decisions first to devalue the Finnish mark, and then to allow it to float and subsequently to fall, reduced Finland's price level relative to most other countries. The subsequent strengthening of the currency is now being reflected as an increase in relative prices. When the price level for private consumption is adjusted by exchange and inflation rates for August 1995, Finland ranks fourth in the comparative study, preceded only by Denmark, Switzerland, and Japan (see the figure). Norway was closest to Finland in prices, while Sweden and Germany were 6 to 7% less expensive. Of the EU countries, those clearly cheaper than Finland are the southern European countries, the UK, and Ireland.

Comparative price surveys are carried out to determine how much the same set of commodities costs in different countries. For the purposes of such a comparison, commodities typical of each country concerned are selected from a standard basket containing more than 2000 precisely defined goods and services. Finland has been included in the comparative price surveys co-ordinated by Eurostat since 1992. The price data are accumulated by national statistics agencies, here Statistics Finland.

Price levels for private consumption are compared using commodity baskets typical of households. When the overall price levels are studied, the commodities include a wide range of products from food to investment goods and construction. As part of the surveys, exchange rates reflecting the real purchasing power of each country, known as purchasing power parities, are generated. If only exchange rates are used in GNP comparisons, a country with a high price level appears more wealthy than it actually is. To avoid this bias, it is advisable to use purchasing power parities.

When the prices in different countries are examined, it should be borne in mind that the indices do not reveal the purchasing capacity of the people. Therefore, a comparison of purchasing power parity is more telling. Finns have little to brag about when it comes to purchasing power. For example, the purchasing power of industrial wages in Finland and Sweden is among the lowest in the EU (see Prices and Wages 4/1995).



The international price level indices for private consumption have been calculated on the basis of 1993 purchasing power parities by adjusting them to exchange rates and changes in inflation. For more details on the prices levels for various products and services, please contact Harri Kananoja, tel. +358(9)0-1734 3567.

TABLE OF INDICES

	IV/1995	Annual change %
• **Index of wage and salary earnings 1990=100***	119.4	6.2
Hourly paid employees	117.8	6.3
Monthly paid employees	120.0	6.2
Manufacturing	125.4	7.4
• Blue-collar workers	125.2	7.3
• White-collar workers	125.8	7.7
Building construction workers	104.4	4.2
Wholesale and retail trading	121.6	6.4
Transport	122.1	7.4
Finance	127.3	6.7
Local government	119.7	6.1
Hourly paid employees	115.8	5.8
Monthly paid employees	120.0	6.2
Central government	114.4	5.0
Monthly paid employees	113.8	4.8
Private sector	120.0	6.4
Hourly paid employees	117.8	6.3
Monthly paid employees	121.5	6.5
• **Index of real earnings1990 = 100***	106.6	5.9
• **Dwelling price index1983 = 100**	139.0	–4.3
Helsinki conurbation	125.7	–9.6
Rest of Finland	146.3	–1.7
	February 1996	
• **Consumer price index 1990 = 100**	112.4	0.5
Food	92.8	–3.5
Housing, heating and lighting	100.6	0.5
Transportation	126.0	1.9
• **Cost of living index1951:10 = 100**	1 394	0.5
• **Wholesale price index 1990 = 100**	110.6	0.8
Domestic goods	107.5	1.5
Imported goods	117.5	–0.6
• **Export price index1990 = 100**	122.4	5.8
• **Import price index1990 = 100**	119.3	–0.8
• **Producer price index of manufactured products 1990 = 100**	112.3	2.6
• **Basic price index for domestic supply 1990 = 100**	106.1	–1.3
• **Building cost index1990 = 100**	101.9	–1.7
Labour	102.3	–0.5
Materials	104.0	–1.7
• **Cost index of civil engineering works 1990 = 100**	103.3	–1.1
• **Cost index for road transport of goods 1990 = 100**	109.8	2.0
• **Cost index of bus and motor-coach traffic 1990 = 100**	112.7	1.9

* *Preliminary figure*

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Wages 1996:1

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