Notes and Brief Reports

Social Security Abroad

Variable Employer Contribution Rates in Finland*

In virtually all countries with social security programs the contribution rate is set at a specific level for all insured persons and for all employers and is usually stated as a percentage of wage or payroll. All contributors within each of the two groups thus pay into the social security funds in the same proportion. In some countries—the Federal Republic of Germany and the United States, for example—the rates for the two groups are identical.

Finland has an interesting deviation in the form of a variable payroll tax for employers. In the basic universal pension program, capital-intensive employers are taxed at a higher rate than labor-intensive enterprises. In the employment-related pension program, the variation is based on such factors as size of firm, age and sex of employee, and type of risk.

The substantial increase in the Finnish universal benefit in the early 1970's required a search for additional sources of income. It was decided to alter the payroll tax structure by assessing a higher tax on those firms that could presumably afford to pay more. The kind of variation occurring in the earnings-related program reflects the practice of operating that program through private insurance carriers, especially among smaller employers.

Background

Under Finland's two-tiered social security pension system, a flat-rate basic pension is payable at age 65 to those who have been residents for at least 5 years, plus an employment-related supplementary pension, varying with the earnings level, that requires the recipient to retire from paid employment. As in many other countries, the old-age, disability, and survivor pensions are financed through a combination of employer and employee contributions and payments from general revenues; the employer contributes to both the basic and employment-related programs but is the sole contributor to the employment-related pension.

Usually in countries with a developed social security system, once the contribution rates are established they apply equally to each contributor in a given category—that is, all employers and all employees contribute at the stated rate. Consequently, when additional funds are needed to pay for higher benefits or program expansion, the rate is generally adjusted uniformly for every contributor in the category. The search for new sources may focus, of course, on sales taxes or taxes earmarked for specific social security programs, but the employer/employee basic contribution pattern has not been affected by such measures.

Finland broke with this tradition for its basic universal pension program in the early 1970's when it introduced variable contribution rates for employers. The new rates—higher for some employers and lower for others—are tied to the amount of annual depreciation that is claimed by the enterprise. The employment-related tier of the social security system became effective in 1962. From the beginning, it has featured employer contribution rates that vary, as noted earlier, with size of firm, age and sex of the employee, and type of risk.

Universal Pension Program

This program is financed by employees and employers, with employees contributing at roughly one-half the employer rate. As indicated above, the individual employer's rate rises with the amount of the annual depreciation claimed.

Depreciation, generally speaking, is the decline in the value of productive machinery and other property because of wear, deterioration, or obsolescence that may be taken into account in determining the employer's income-tax status. The depreciation allowance tends to lower the employer's tax bill and therefore benefits primarily enterprises with high investment in labor-saving machines and other technical means of production.

The contribution rate also responds to the depreciation/payroll relationship, as the figures below indicate.

Annual depreciation (in marks)	Rate as percent of payroll
50,000 or less	4.625
More than—	
50,000 (10-30% of payroll)	5.125
50,000 (31% or more of payroll)	5.625

Thus, when the amount of depreciation is relatively low (50,000 marks[1] or less annually), regardless of the size of

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[1] One Finnish mark represents 27 U.S. cents, as of December 20, 1979.

payroll, the employer's contribution rate is at the minimum. As annual depreciation rises above 50,000 marks and represents a higher proportion of the employer's total payroll, the rate goes up. If the figures shown above for the two categories of employers with depreciation greater than 50,000 marks are examined, it can be seen that the 5.125 percent applies when the employer's total payroll is roughly three to ten times the amount of his depreciation and that the highest rate is reserved for employers whose payrolls are less than three times their depreciation.

This rate structure tends to favor small, established companies though it was primarily designed for the benefit of labor-intensive firms. Two facts account for this situation:

1. A small operation does not usually require large investments on a sustained basis, and the amount of annual depreciation could thus be expected to be modest and the contribution to be in the low range. Nevertheless, small employers under certain circumstances find the tax burdensome. When the business is first started, the initial capital investment may be relatively heavy, driving up the amount of depreciation. Some firms with few employees may maintain costly equipment with high depreciation that is likely to produce a high social security contribution rate.

2. Labor-intensive employers, by definition, have invested relatively modestly in labor-saving equipment. The amount of depreciation, actual as well as in terms of payroll, will thus be comparatively small, and the social security contribution rate correspondingly low.

Besides making the contributions more equitable in terms of ability to pay, the change in the contribution pattern of the universal pension program was intended to increase the total amount paid into the program to support the increased benefits. All the new rates shown above were therefore made higher than the previous single rate.

The change has been less successful than expected, however. Though the graduated method has raised total revenues, the increase has been little more than one-half the amount expected. Indications are that the rate differences are too modest and that large employers are contributing less than anticipated. A 1973 survey of the amounts paid into the system by employers, classified by rate level, revealed that those paying at the lowest rate accounted for 66 percent of total contributions, 23 percent was contributed by the middle group, and only 11 percent by the group with the highest rate. Therefore, if the objective is to distribute the burden of financing the program relatively evenly between groups of employers, it could be achieved only if rates were increased substantially for the two higher groups.

Employment-Related Program

The employment-related supplementary pension, financed entirely by the employer, is payable at age 65 at the rate of 1.5 percent of earnings. The amount is based on the 2 years closest to the average for the last 4 years of earnings before retirement, multiplied by the number of months of coverage. The program is usually operated through private insurance carriers, but employers with 300 or more employees may establish their own pension fund.

The contribution rate may vary from one employer to another, but the approach is conceptually different from that used for the universal pension program. As noted earlier, under this program, the rates are not treated in the same way for small and for large employers. Firms with fewer than 50 employees pay at a uniform rate (9.9 percent of payroll in 1978). For larger firms, the rates vary according to the age and sex of the employee and are established separately for old-age, invalidity, and survivor pensions. Because these risks tend to be greater with age, the employer contribution rate generally rises as the employee ages.

Contributions are also made to a support fund, described below. In addition, the total contribution rate includes a small increment of about 0.4 percent of payroll for administrative costs and to cover loss of premiums.

The individual contribution rates for the various parts of the employment-related pension program are shown in table 1. The average employer contribution rate, overall, was 12 percent in 1977. In 1978, the rate was lowered temporarily to 10 percent to promote economic recovery, only to be raised to 11.7 percent in 1979.

Old-Age Pensions

The premium structure for old-age pensions is interesting in two respects: (1) The rate generally rises with age and (2)

Table 1.—Employer contribution rates (percent of payroll to employment-related social security program, by type of risk, sex, and age, 1976

									Other			
	Total		Old-age		Disability[1]		Survivor		Support fund		Administrative costs[2]	
Age	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
20	6.8	7.3	....	....	1.3	1.3	0.02	0.2	5.1	5.4	0.4	0.4
30	9.6	9.1	2.3	1.9	2.2	2.2	.5	.2	4.2	4.4	.4	.4
40	10.2	10.2	2.2	3.0	4.4	4.4	1.4	.2	1.8	2.2	.4	.4
50	12.1	10.1	3.7	3.0	4.4	4.4	2.4	.2	1.2	2.1	.4	.4
60	13.1	13.1	....	....	6.5	6.5	2.2	.2	4.0	6.0	.4	.4

[1] Represents employers with less than 300 employees.

[2] Includes 0.05 percent for loss of premiums.

contributions cease at a relatively early age. The rate increase reflects the increased risk with age. Since contributions are payable only for employees aged 23–54, the premiums do not reach the magnitude that might otherwise be expected.

Disability Pensions

The total amount of annual premiums collected for the risk of disability must be large enough to cover the pensions granted in a specific year for as long as the disabilities last. Index-linked increases, determined by changes in the price and wage indexes, are financed from the support fund.

The method used to compute the risk factor depends on the size of the work force. For firms with 600 or more employees, the risk premium is determined for each individual employer and is related to the number of disability cases involved. For firms with fewer than 300 employees, the premium is based on the combined risk factor of all employers in this category, with the age distribution still taken into account and the contribution rate computed for each age group.

As table 1 shows, the rate rises with age for employers with fewer than 300 employees. Besides reflecting the incidence of disability, the rate aims at equalizing age group contributions by combining a declining number of contributors in each advancing age group as wages become increasingly higher.

For employers with 300–599 employees, a combination of the two methods of determining contributions is used. The common rate for all small employers is used for the first 299 employees; for the remainder, the individual employer rate is used. Thus, the contribution rate for an employer with 500 employees would be weighted to reflect the combination of the two rates.

Survivor Pensions

For men, the premium for survivor protection is a risk premium, related to age, that finances the survivor pension until the employee retires. The premium tends to rise with the employee's age, but it tapers off after he reaches age 55 since pensions beyond retirement age are financed from the support fund. That fund also finances any index-related increases before retirement, as for the disability pension.

For women employees the contribution rate for survivor protection is much lower and is uniform for all age groups. The difference between the rates for men and women reflects the fact that only the woman's surviving children are eligible for survivor pensions, since benefits are provided for widows but not for widowers.

Support Fund

A support fund—essentially a pooling arrangement for covering shortfalls in contributions and equalizing the carriers' costs—also receives contributions from employers and is similarly based on age, sex, and number of employees.

Relating the employer contributions into the support fund to age of the employees is intended to assure that all age groups will be contributing an approximately equal amount. Thus, the rate starts at a relatively high level for the younger ages (when wages are low), tapers off as the wages of older workers rise, and finally increases for employees nearing retirement age (primarily because of the declining number of workers in this age group).

Research Grants Studies

Sections 702 and 1110 of the Social Security Act authorize extramural research projects in the broad areas of social security. The Social Security Administration provides funding through grants to nonprofit organizations and through contracts with both nonprofit and profitmaking organizations. From time to time, as projects are completed, the **Bulletin** publishes summaries of research findings. A summary of a completed project (Grant No. 90296) is presented below.

Demographic and Economic Differences in Survivor Experiences of Nonwhite and White Families

This national study investigated demographic and economic differences in the survivor experiences of nonwhite and white families. Substantial racial differentials in working lifetime mortality are apparent yet mortality data do not clearly illuminate the impact upon the surviving population. The study compares the risks of widowhood for women and of paternal orphanhood for children. Also compared are the consequences of family-status changes for the duration of widowhood and of paternal orphanhood and for lifetime income deficits—the extent to which "survivor" families are financially disadvantaged in their remaining worklife years in comparison with their intact counterparts. The research was conducted by Gordon F. Sutton, University of Massachusetts at Amherst.

The study produced a set of national estimates of racial differences for the United States. These estimates are based on national current population survey (CPS) data collected by the Bureau of the Census (from the June 1971 survey) and on recent national vital statistics data from the National Center for Health Statistics. The CPS questionnaire asked women about their marital and child-bearing histories. These data along with vital statistics data were used in an