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THE AGE PROFILE OF INCOME AND THE BURDEN OF UNFUNDED TRANSFERS IN FOUR COUNTRIES: EVIDENCE FROM THE LUXEMBOURG INCOME STUDY

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This paper uses micro-census income data from the Luxembourg Income Study (LIS) to measure the current and future burden of financing public transfers. The burden of population aging depends crucially on the relative sizes of the aged and working-age populations, the relative consumption of aged and working-age households, and the sources of finance for old-age consumption. To the extent that elderly households depend on transfers financed out of the current incomes of working-age households, the trend toward an older population can impose a heavy burden on active workers. However, if aged households finance their current consumption largely out of their own current earnings or their own past savings, the burden of population aging is much lighter.

Most cross-national studies of the potential burden of aging populations focus on prospective changes in the ratio of retired to working-age populations. Less research has been directed toward measuring cross-national differences in the support that aged households derive from factor incomes, on the one hand, and unfunded transfers, on the other. Factor income consists of earnings obtained from one's own labor as well as investment income from real property and capital investment. Unfunded transfers consist of cash and near-cash benefits from social assistance programs, unfunded pension payments, and unfunded in-kind transfers, including public health insurance. The burden of paying for unfunded transfers is simply the tax on factor income that is needed to pay for such transfers under a balanced budget rule.

This paper focuses on four countries which have differing systems of social protection and old-age income support: Finland, Germany, the United Kingdom, and the United States. While all industrial countries will grow older over the next half century, the burden of providing public support to their aging populations will not rise by the same percentage. One reason is that their populations will grow older at different rates. Countries with comparatively high fertility and immigration, such as the United States, will see a slower shift in the age structure compared with countries where fertility rates are lower and immigration is less common. Even ignoring the effect of differences in the pace of population aging, industrial countries would experience varying changes in tax burdens as a result of population aging. The elderly and near-elderly in some countries earn comfortable incomes from their own labor and investments. In other countries the aged receive smaller factor incomes, and they depend more heavily on

transfer payments from the government. The age profiles of factor income and of transfer payment generosity taken in combination determine the taxes that citizens must pay out of their capital and labor incomes to support transfer recipients.

The conclusions drawn in the paper are broadly consistent whether I use uncorrected micro-census income reports or reports adjusted to reflect income under-reporting in the LIS. The results shown in the table below are based on income estimates corrected for under-reporting. The top panel in the table shows the change in national tax burdens between 2000 and 2050 for unfunded transfers based on the Census Bureau's projections of the future population age structure in each of the four countries. Generous social welfare states in continental Europe offer more costly and burdensome paygo transfers to their aged citizens than comparable benefits provided by the United Kingdom or the United States. The generous package of benefits offered in continental Europe will require heavier taxes on factor incomes than are needed in the English-speaking countries regardless of the age structure of the national population. At the same time, factor incomes in continental Europe tend to fall off much more rapidly in late middle age than is the case in either Britain or the United States, in part because labor incomes decline faster after age 55 than they do in the United States and in part because capital incomes are significantly smaller than they are in both Britain and the United States. This pattern of factor income payments will mean that the future availability of factor income will fall off faster in Continental Europe than in the English-speaking countries as the population grows older.

Table: Effect of Population Aging on Tax Rate Needed to Finance Unfunded Transfers in Four Countries, 2000-2050

Percent

	Finland	**Germany**	**U.K.**	**U.S.A.**
Estimates based on national population trends --				
2000	29	30	17	13
2050	42	49	27	18
Relative tax burden in 2050 (Tax rate in 2000 = 100)	145	163	157	141
Estimates based on standardized population trends --				
2000	29	28	17	14
2050	43	46	24	21
Relative tax burden in 2050 (Tax rate in 2000 = 100)	146	164	145	155

Results in the lower panel of the table show the trend in tax burdens if each of the four countries shared the same population age structure and a common trend toward an older population. The common age structure in 2000 and 2050 is the unweighted average age distribution estimated or predicted by the Census Bureau for these countries. Under the assumption of a common age structure, tax burdens rise proportionately faster in Germany and the United States than they do in Finland or the United Kingdom. This result is mainly due to the difference in the age profile of benefits offered by the four countries. Germany and the United States have social insurance and assistance systems that provide relatively generous benefits to the aged and less generous transfers to the non-aged. Even though average paygo transfers rise with a person's age in Finland and the United Kingdom, the schedule of benefits is less steeply sloped than it is in Germany or the United States. The United States will nonetheless face the lowest tax on factor incomes in 2000 because the overall schedule of benefit payments is less generous than it is in the other three countries considered.

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