

OVERVIEW

- We analysed the interaction between the pension and the tax system from a social inequality perspective for 28 European countries.
- Using data from EU-SILC 2019 and the tax-benefit microsimulation model EUROMOD, we try to assess whether these systems reinforce each other in terms of inequality and poverty reduction, or, on the contrary, operate in opposite directions.
- We connect the literature on welfare state typologies and characteristics of the pension systems on the one hand and the literature on characteristics of tax systems and pension-related tax expenditures on the other.
- The results indicate that in general the tax system functions as a social policy tool for pensioners. However, there is considerably heterogeneity across countries in terms of the degree of vertical equity, i.e. the changes in inequality and poverty for pensioners due to the tax system, and the degree of horizontal equity, i.e. the extent to which income from old age and from work are treated in a different way.
- Our results highlight that the position of pensioners in the income distribution is an important driver of the results regarding tax progressivity. In addition, while pension income is granted preferential treatment in nearly all countries, the existence of tax expenditures in other policy fields can (and do) impact the extent to which the principle of horizontal equity between pensioners and employees is maintained or violated.

Research findings

In this paper, we studied the interaction between the pension and the tax system from a social inequality perspective for 28 European countries. We used data from the EU-SILC 2019 database in combination with the European tax-benefit model EUROMOD. Even though the objectives of the tax system differ from those of the pension system, our analysis departs from the idea that the underlying principles of the welfare state type influence decisions regarding key elements of both systems. Pension systems have two main objectives: to provide an adequate standard of living for the elderly (and thereby alleviating old age poverty) and to smooth consumption over a lifetime. In Beveridgean countries, such as the Nordic and Anglo-Saxon countries, traditionally minimum income schemes are central in the pension system because the main aim in these types of countries is to prevent poverty. As a Bismarckian logic applies in continental and Southern countries, pension benefits are more strongly related to past contributions. We investigate how much taxes (the total of personal income taxes and social insurance contributions) are levied on pensions in comparison to income from work and to what extent pensioners are 'taxed into poverty'.

In all countries the total tax burden (personal income taxes and social insurance contributions together) is relatively smaller for old-age individuals than for employees, but we see large differences across countries both in terms of the gap in overall tax burden between the two groups, as in the tax burden on pensions across countries. The gap in overall tax burden between workers and pensioners is especially

low in Nordic and South-European countries, and much higher in Central-East European (CEE) countries and the Baltics. This is due to (1) a lower social insurance contribution rate on pensions; (2) a relatively lower income position of pensioners (which plays when taxes are progressive); (3) tax expenditures for pension incomes.

To understand how poverty rates are influenced by taxes on pensions, we introduce the measure of 'taxed into poverty'. The relationship between the poverty effects of the tax system on the one hand (percentage of elderly that are taxed into poverty) and of the pension system on the other hand (pre-tax poverty risk) is summarised in Figure 1.

Figure 1 hints at the complex interplay between the characteristics of the pension system (in terms of adequacy of benefits) and the tax system. Pre-tax poverty rates among the elderly (horizontal axis) show a lot of variation between countries. In general, old age poverty rates are quite low in the Nordic and Continental countries, where they are usually below 10%. In contrast, poverty rates are very high in the Baltic countries, ranging between 38.5% in Lithuania and 51.5% in Estonia, in line with existing research. Within the group of Southern and Eastern European countries, there is more variation. Pre-tax poverty in old-age ranges between 5 and 30% in the Southern countries. Greece and Italy perform quite well, with poverty rates of 5.7 and 4.7%, respectively. At the other end are Cyprus (21.2%) and Malta (29.7%). In the group of CEE countries, Poland and Slovakia stand out because of their comparatively low poverty rates (8.2 and 5.3%, respectively). The highest poverty rate

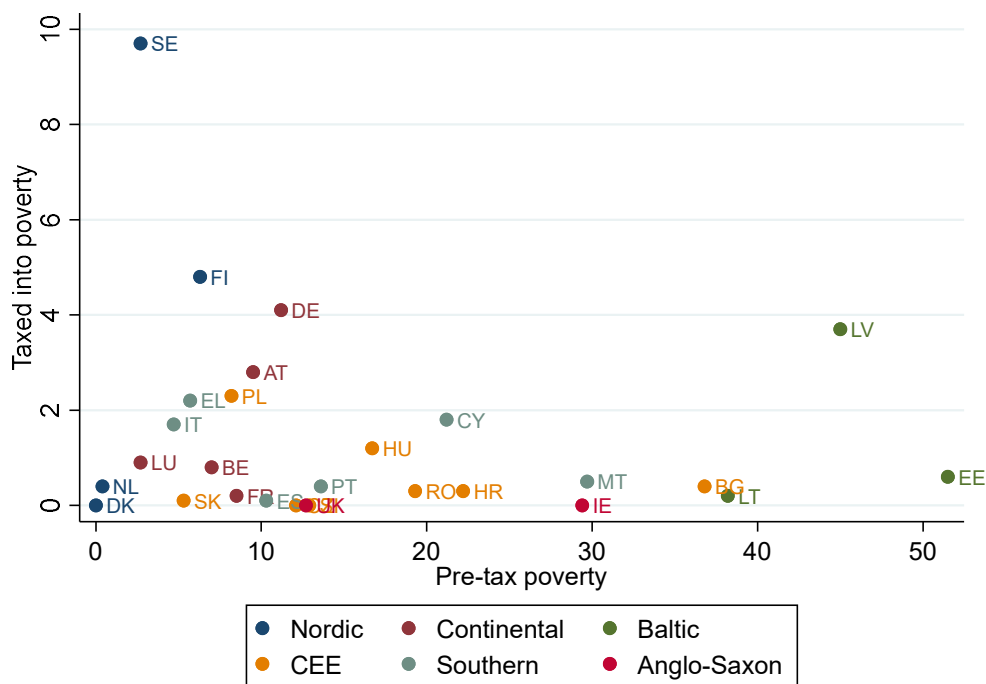
is observed in Bulgaria, which with its 36.8% is closer to Baltic countries. In the remaining CEE countries, poverty rates range between 12 and 23%. Quite notable also is the high rate of pre-tax poverty in Ireland (29.4%), and the lower poverty rate in the United Kingdom (which at 12.7% is still higher than that of the worst-performing continental country).

There is less variation across countries in the extent to which pensioners are taxed into poverty. With the exception of Sweden, in all countries less than 5% of old-age individuals are poor after deduction of taxes on pension income. It appears that the tax system does not counteract in great deal the poverty-reducing effects of the pension system (small as these poverty-reducing effects may be in certain countries). At the same time, there seems to be an inverse pattern between pre-tax poverty and the share of pensioners that are taxed into poverty, though the pattern is not clear cut. For example, in the Baltic countries and Bulgaria pre-tax pension levels are often inadequate, but the tax system does not further deepen this low income position because of the many tax exemptions on pensions that are in place in these countries. A similar case can be made for most other CEE countries (except for Poland) and Southern countries, though pre-tax poverty rates tend to vary more. Continental countries combine relatively low poverty rates with varying levels of pensioners that are taxed into poverty.

An interesting finding is the difference in shares of pensioners that are taxed into poverty within

Beveridgean countries, more specifically between Sweden and Finland on the one hand and the other countries. These are all countries where poverty reduction traditionally is at the centre of the pension system. In line with results from previous research, pre-tax poverty rates indicate that especially Denmark and the Netherlands are successful in achieving adequate living standards for pensioners, while Ireland and the UK are less successful. Denmark and the Netherlands are the two countries with (partial) basic pensions. At the same time, in the United Kingdom, Ireland, Denmark and the Netherlands the share of pensioners that is taxed into poverty is (nearly) zero, even though in the Beveridgean countries first tier pension benefits are exempt only in the United Kingdom and Sweden. In Sweden and Finland, in contrast, the tax system counteracts to a certain extent the efforts of the pension system to keep pensioners out of poverty. In Sweden, 9.6% of pensioners are taxed into poverty, while in Finland almost 5% of pensioners are poor due to taxes on pension benefits. The result is even more surprising as Sweden is the only Nordic country where first tier pension benefits are tax exempt. Although it might be argued that these numbers are not extremely high, it is striking that the comparatively highest shares of pensioners that are taxed into poverty are found in countries where poverty reduction is one of the central aims of the welfare state.

Figure 1: Scatter plot of pre-tax poverty rate and percentage taxed into poverty, pensioners only, 28 European countries, 2019



Source: EUROMOD, own calculations.

Policy Implications

Our study showed that almost all European countries studied here clearly use the tax system as a social policy tool for pensioners.

The results highlight the importance of studying the tax and pension system jointly. Given the complex interactions, changes in, for example, minimum income protection policies might generate important changes in the effects of the tax system. Also the reverse applies: changes in the tax treatment of old age incomes may generate adverse poverty outcomes if pension levels were left unchanged. Similarly, our results show that the interplay between tax expenditures in different fields, might yield

unexpected results. These effects are likely to go unnoticed if the focus is only on one specific field, giving further relevance to undertaking a comprehensive analysis of the effects of possible changes in tax and/or benefit systems.

Finally, there is scope for policy makers to further clarify the main aim of granting tax expenditures to certain types of income. While it is possible to gauge how tax expenditures regarding pension benefits affect old-age poverty and inequality, it is challenging to establish whether and to what extent such effects are intended.

Further reading

“Old age social protection through taxes? A Comparison of the Distributive Effects of Taxes on Pensions and Income from Work in the EU”, by Ella-Marie Assal, Sakura Panagamuwa Gamage, Gerlinde Verbist, CIRCLE Working Paper n. 8, December 2021.