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Reassessing Tax Fairness Through the Lens of Fiscal Fairness

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Abstract: Policy debates on European welfare states often rely on an incomplete notion of tax fairness that overlooks indirect taxes and in-kind public services. Using a comprehensive fiscal incidence framework, we show that once direct and indirect taxes, cash transfers, and in-kind benefits are jointly considered, the number of net contributor households in the EU declines substantially. While high-income households remain the primary net contributors, many low- and middle-income households are net beneficiaries due to the redistributive role of public services. I conclude that fiscal fairness, rather than tax fairness alone, provides a more appropriate basis for evaluating redistribution, sustainability, and welfare state reform.

Keywords: tax fairness; fiscal fairness; fiscal incidence; welfare state; redistribution

1 Introduction

The concept of "tax fairness" features prominently in European policy debates and is frequently invoked to justify higher taxation. Although inherently normative, its meaning has evolved over time. What was once largely shorthand for combating tax evasion and aggressive tax avoidance has increasingly become associated with a particular vision of redistributive tax policy. Calls for higher taxes are often framed as necessary to finance public goods such as health care, education, and infrastructure. Yet, paradoxically, these very in-kind benefits are typically excluded from the metrics used to assess tax fairness in the first place. As emphasized by Atkinson (2015), taxes cannot be evaluated independently of the public services and transfers they finance.

Throughout this paper, fiscal fairness is assessed by looking at the full picture: all taxes paid and all (or most) public benefits received. This is a deliberately narrow,

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accounting-based definition, one that steers clear of the thornier debates around distributive justice. European welfare states are characterized by a strong public role in securing economic and social well-being through public health care, education, pensions, unemployment insurance, and a wide range of social transfers. A common assumption in political discourse is that high-income households finance these systems, while low-income households are the primary beneficiaries. In a recent comprehensive assessment of net fiscal contributions across EU Member States, my coauthor Monika Köppl-Turyna and I examine the full fiscal relationship between households and the state (Christl and Köppl-Turyna 2025). By accounting not only for direct taxes and cash transfers, but also for indirect taxes and in-kind benefits, we provide a more complete picture of who ultimately finances European welfare states. The results suggest that once the full fiscal system is considered, the number of households that can be classified as net contributors to public finances declines substantially. This comprehensive approach is consistent with OECD work emphasizing the need to assess redistribution by jointly considering taxes, cash transfers, and public services (OECD 2015).

This broader perspective points to the need to move beyond a narrow focus on tax fairness toward a concept of fiscal fairness. Fiscal fairness evaluates the entire fiscal system, considering both what households contribute in taxes and what they receive through cash transfers and public services. It also recognizes that economic activity, through employment, investment, and growth, plays a central role in sustaining redistribution over time.

2 Measuring the Full Fiscal Footprint

This paper focuses specifically on two categories of in-kind public spending: education and healthcare. These are the two largest components of social spending in kind across EU member states and are also the categories for which individual-level allocation is most tractable using available micro-data. Other categories, such as housing support, cultural services, or infrastructure, are acknowledged but excluded from the quantitative analysis.

Standard approaches in public finance typically assess redistribution by comparing pre-tax and post-tax incomes. This framework focuses on direct taxes, such as personal income taxes and social security contributions, and on cash transfers, including unemployment benefits or family allowances. While analytically convenient, this approach fails to capture two defining features of modern European welfare states.

First, it excludes indirect taxes, particularly value-added tax (VAT), which households pay whenever they consume. Indirect taxes represent a substantial share of public revenues across the European Union, 32.4 percent in 2023 according to Eurostat. Second, it ignores in-kind benefits, notably publicly provided health care, education, and other services, which account for a large share of government spending and are central to households' material well-being.

By jointly measuring all taxes paid, direct and indirect, and all benefits received, cash and in-kind, we construct a net fiscal incidence measure that more accurately reflects the redistributive and allocative effects of government policy. This comprehensive approach helps explain why public perceptions of tax fairness often diverge from fiscal reality.

2.1 Who Are the Net Contributors?

A key finding of our recent analysis (Christl and Köppl-Turyna 2025) is that high-income households are, as expected, significantly more likely to be net contributors to public finances. However, once in-kind benefits are fully accounted for, households in the lower and middle parts of the income distribution, including those often described as the "squeezed middle", are far more likely to be net beneficiaries than commonly assumed.

Although these households contribute substantially through income taxes and VAT, the monetized value of public services they receive often exceeds their total tax payments by a wide margin. Across all EU Member States, the share of households classified as net contributors falls sharply when indirect taxes and in-kind benefits are included.

Figure 1 summarizes our estimates of net fiscal contributions across EU Member States under two alternative definitions of fiscal incidence. When net contributions are calculated using only direct taxes and cash benefits, a majority of households appear to be net contributors in most countries. However, once indirect taxes, particularly VAT, and in-kind benefits such as publicly provided health care and education are included, the share of net contributor households declines markedly in every Member State. For example, in Austria and Belgium, the share of net contributors falls from close to 60 percent under a narrow definition to below 50 percent when the full fiscal system is taken into account. Similar patterns emerge in Southern European countries such as Italy and Spain, where many middle-income households switch from being classified as net contributors to net beneficiaries once public services are included. Even in countries with relatively high reliance on indirect taxation, such as the Nordic and Baltic states, the inclusion of in-kind benefits substantially offsets the apparent regressivity of consumption taxes. These examples illustrate how narrow notions of tax fairness systematically overstate the number of households financing the welfare state and underscore the importance of a comprehensive fiscal fairness perspective.

This outcome is not a flaw but a defining feature of the European welfare state model. Redistribution in Europe occurs not only through targeted cash transfers, but also through universal access to high-quality public services. These services, while less visible than direct benefit payments, constitute a central pillar of social protection.

2.2 In-Kind Benefits and VAT as Redistributive Instruments

In-kind benefits emerge as one of the most powerful redistributive components of fiscal policy. Universal health care and education deliver large implicit transfers, particularly to lower-income households, while being financed collectively through

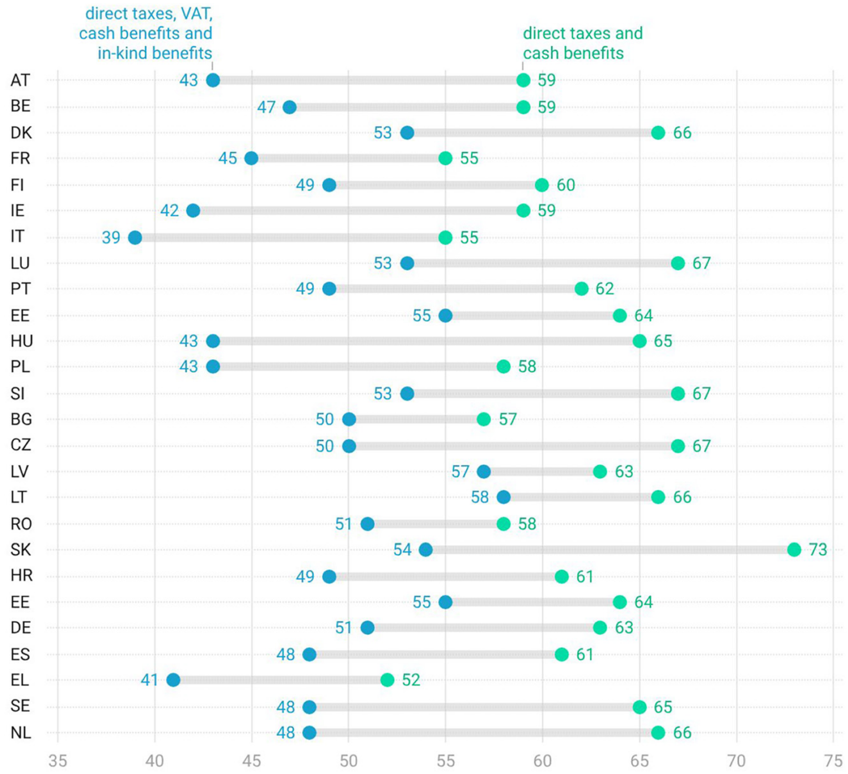

Figure 1: Share of net-contributor households across EU member states.

broad-based tax instruments. This finding is consistent with OECD evidence showing that the largest reductions in inequality occur once public health and education services are incorporated into household income, highlighting in-kind benefits as the dominant drivers of redistribution (OECD 2015, Chapter 7)

Indirect taxes such as VAT are often criticized as regressive, since lower-income households devote a larger share of their income to consumption. However, our recent empirical work on European countries shows that this regressive effect is relatively modest and, more importantly, more than offset by the progressive impact of in-kind benefits (Christl et al. 2025).

Across the EU, income inequality, as measured by the Gini coefficient of disposable income, varies substantially. When in-kind benefits and indirect taxes are incorporated into the analysis, income inequality declines in all EU Member States. As shown in Figure 2, Gini coefficients typically fall by several points, often around 4 to 6, highlighting the substantial equalizing role of public services.

Figure 2: Income inequality (Gini index) across EU member states.

The cross-country variation visible in Figure 2 warrants closer attention. The Gini coefficient of disposable income ranges from around 21 in Belgium and Slovenia to over 40 in Bulgaria before in-kind benefits and VAT are accounted for, reflecting deep structural differences in market income inequality and cash redistribution across EU member states. Once the full fiscal system is considered, adding in-kind benefits from education and healthcare and subtracting VAT, inequality falls in every country, but the pattern of reductions is instructive. Countries starting from higher levels of disposable income inequality, such as Bulgaria, Latvia, Lithuania, Spain, Portugal, Romania, and Italy, tend to show large absolute reductions, suggesting that in-kind transfers play a particularly important corrective role where market income inequality and cash redistribution alone leave larger gaps. Countries that already achieve low disposable income inequality through their tax-and-transfer systems, such as Belgium, Austria, the Czech Republic, Slovakia, and Sweden, show smaller absolute reductions, in part because their public services, while generous, operate on an already more compressed income distribution. The lowest post-transfer Gini coefficients in the EU are found in Slovakia (15.9), Belgium (17.3), the Czech Republic (18.6), Austria (18.5), and Sweden (18.8), underscoring that both the cash transfer system and the provision of public services jointly determine final inequality outcomes. These patterns suggest that in-kind transfers and indirect taxation interact with the existing architecture of each welfare state in complex ways, and that the fiscal fairness argument has particular salience in countries where cash redistribution alone gives an incomplete picture of how generous the welfare state actually is.

These results underscore an important policy insight: VAT, while mildly regressive in isolation, functions as part of a broader redistributive system when paired with universal public services. Efficiency-oriented tax instruments and social objectives are therefore not inherently in conflict. A tax system relying on neutral, broad-based taxes can still achieve substantial redistribution if the spending side is well designed.

3 Fiscal Fairness in the Literature

The argument advanced in this paper that in-kind benefits and indirect taxes must be included when assessing the redistributive properties of fiscal systems is not entirely new, but remains far from mainstream in public and policy debates. A substantial academic literature has developed this idea across different frameworks and country contexts, and situating the present contribution within that literature is important for understanding both what we add and what remains contested.

The most influential strand of this literature is the Distributional National Accounts (DINA) framework developed by Piketty et al. (2018). Their approach distributes the entirety of national income, including government expenditure, to individuals, providing a more complete picture of post-tax inequality than standard survey-based measures. Applied to the United States, the DINA framework documents a sharp rise in post-tax inequality since 1980. The approach has since been extended to France (Bozio et al. 2024), Germany (Bach et al. 2022), and to the European Union as a whole (Blanchet et al. 2022). These studies consistently find that the inclusion of government transfers, both cash and in-kind, substantially alters measured inequality, generally in a more equalizing direction. The DINA literature thus provides a complementary macroeconomic perspective to the household-level fiscal incidence approach adopted in this paper.

A parallel and earlier tradition focuses specifically on the distributional impact of publicly provided services. Pioneering cross-country work by Marical et al. (2006) and Verbist et al. (2012) for the OECD showed that including education and healthcare in-kind transfers substantially reduces measured inequality and changes the ranking of countries by redistribution. Garfinkel et al. (2006) similarly demonstrated that in-kind transfers and indirect taxes together alter conclusions about inequality across rich nations, a finding whose policy relevance for the European debate this paper amplifies and updates with EU-wide micro-data. More recently, Paulus et al. (2010) confirmed these patterns specifically for European countries, showing that in-kind benefits from education and healthcare are progressive and meaningfully compress the income distribution. The OECD Expert Group on disparities in a national accounts framework (Zwijnenburg et al. 2017) further documented cross-country patterns in the distribution of education spending by household income, with findings broadly consistent with those presented here.

The results also complement earlier work by Smeeding et al. (1993), who examined the effect of non-cash subsidies for health, education, and housing across seven nations, finding that their inclusion significantly reduces poverty rates and inequality. Their conclusion that the welfare state is considerably more generous than cash-transfer statistics suggest resonates strongly with the fiscal fairness argument advanced here. At the national level, the UK's Office for National Statistics has produced annual analyses of taxes and benefits on household income incorporating in-kind transfers (Jones 2008), and the UK government's Spending Reviews pay systematic attention to the distributional impact of public spending. These government-level efforts demonstrate that moving from tax fairness to fiscal fairness is not only academically motivated but institutionally feasible.

Relative to this literature, the present paper makes three contributions. First, it provides an EU-wide comparative analysis using a unified fiscal incidence framework, going beyond the selective country coverage of most prior studies. Second, it combines the treatment of indirect taxes (VAT) with in-kind benefits in a single framework, whereas many earlier studies focus on one or the other. Third, and most importantly for the policy audience of this journal, it reframes the question from one of academic measurement to one of public legitimacy: the concept of fiscal fairness is intended to speak directly to political debate.

4 Methodological Choices and Their Implications

A comprehensive fiscal incidence analysis of the kind presented here requires a number of methodological choices that can materially affect results and their interpretation. This section outlines the main choices made in the underlying research and situates them in the methodological literature.

The first choice concerns which spending categories to include. The analysis focuses on education and healthcare, the two largest categories of in-kind public spending in the EU. Other categories, such as housing, culture, or infrastructure, are excluded primarily because their individual-level allocation is considerably more difficult and available micro-data less reliable. This focus is consistent with prior literature: education and health are by far the most commonly studied categories in fiscal incidence research (Verbist et al. 2012; Marical et al. 2006), and their combined scale relative to GDP is sufficient to substantially alter distributional conclusions.

The second and more consequential choice concerns how spending is allocated to households. For education, spending is attributed based on actual enrollment: the cost per student at each level (pre-primary, primary, secondary, tertiary) is assigned to the household of the enrolled student. For healthcare, by contrast, average costs are assigned based on demographic characteristics, age and sex, approximating an insurance value rather than observed usage. These two approaches are conceptually quite different. The education allocation is driven by actual take-up of services, which varies across income groups; the healthcare allocation is smoother and more uniform, based on statistical risk profiles rather than observed consumption.

The sensitivity of results to these choices is substantial. Riedel and Stichnoth (2024) provide direct evidence on this for education spending in the United States, showing that the method used to allocate public education expenditure to individuals dramatically changes measured post-tax inequality. In the DINA framework of Piketty et al. (2018), government consumption, including education, is allocated proportionally to post-tax disposable income, rendering half of all government spending distributionally neutral by assumption. Riedel and Stichnoth show this is empirically wrong: using actual enrollment data, public education spending flows disproportionately to the lowest income decile, largely due to the concentration of college students at the bottom of the current-income distribution.

Switching from a proportional to an enrollment-based allocation roughly halves the measured gap between the income shares of the top 10 % and the bottom 50 %. The enrollment-based approach used in the present paper is therefore better supported by evidence than the proportional alternative. The insurance-value approach used for healthcare, while conventional, should be understood as an approximation that may not fully capture actual redistribution.

In-kind benefits are valued throughout at government cost, following standard practice in fiscal incidence analysis and national accounting. The alternative, valuing benefits at the welfare gain to the recipient, is conceptually attractive but practically very difficult. O'Dea and Preston (2012) discuss this distinction in depth, noting that cost-based valuation may overstate redistribution if public services are inefficiently provided or if individuals would prefer a cash transfer of equivalent value. Aaberge et al. (2010) further note that cost-based allocation does not account for differences in need: a household with a seriously ill member may receive the same healthcare allocation as a healthy household of the same demographic profile, even though its actual benefit is larger. These are genuine limitations, and they counsel caution in interpreting the precise magnitudes reported here, even if they do not undermine the main qualitative finding.

Finally, all results are cross-sectional, describing fiscal positions at a point in time rather than over the lifecycle. Because education spending concentrates among households with school-aged children or young adults, and healthcare spending rises sharply in old age, the cross-sectional picture captures these transfers at particular lifecycle stages. Riedel and Stichnoth (2024) show that the apparent progressivity of education spending in cross-section is largely driven by age effects: college students have low current income but receive large public transfers. Auerbach et al. (2023) find, for the United States, that intragenerational lifetime redistribution is substantially less pronounced than cross-sectional estimates suggest. The results presented in this paper should therefore be interpreted as snapshot estimates showing the fiscal system's generosity at any given point in time, not as a full accounting of lifetime redistribution.

5 Conclusions

Public perceptions of who pays for and who benefits from the welfare state often exert greater influence on political debate than empirical evidence. A comprehensive fiscal accounting shows that a large share of households are net beneficiaries once all taxes and benefits are considered.

Misunderstandings about fiscal incidence can undermine trust in public institutions and weaken political support for reforms aimed at improving efficiency, sustainability, or transparency. Focusing narrowly on income tax rates risks distorting policy discussions and obscuring the true distributional effects of the fiscal system. Fiscal fairness provides a more appropriate framework for evaluating tax and spending policies.

This perspective also highlights a fundamental long-term challenge. If the majority of households are net beneficiaries over their lifetimes, public finances inevitably rely on a relatively small group of high-income earners. This concentration places limits on redistribution and raises concerns about behavioral responses, capital mobility, and tax base erosion.

Sustainable redistribution therefore requires policies that balance fairness with efficiency and economic growth. These objectives are compatible, but only if fiscal debates are grounded in comprehensive evidence rather than partial indicators or political slogans.

Understanding who truly finances European welfare states requires moving beyond rhetoric and embracing the full complexity of modern fiscal systems. Redistribution in Europe is driven not only by progressive income taxation, but by the interaction of broad-based taxes and universally accessible public services. Recognizing this reality is essential for designing tax systems that are sustainable, growth-friendly, and perceived as legitimate by both contributors and beneficiaries.

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