

## CLIMATE CHANGE AND RISING INCOME INEQUALITY: IS ULTRA-PROGRESSIVE TAX A SOLUTION?

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### ABSTRACT

The climate crisis and rise in income inequality have created support for progressive taxes with a top marginal tax rate above 50%. Three strands of literature are discussed to show this trend: (1) climate change, (2) income inequality, and (3) taxing the wealthy. Thoughtful flaws are noted in the current paper, especially by giving special attention to growing call for a tax on the wealthy to pay for the fight against climate change and reduce income inequality.

**Keywords:** ultra-progressive tax, climate change, income inequality.

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## 1. Introduction

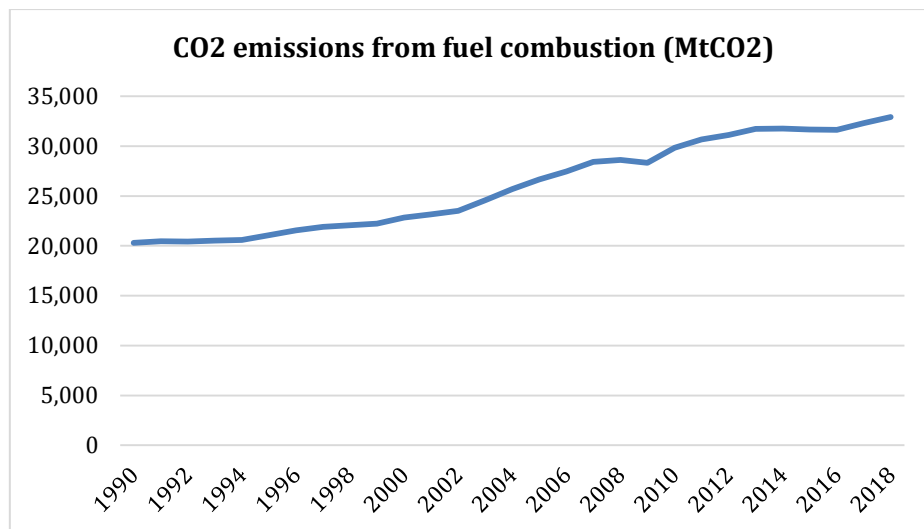
Air pollution is one of the world's most significant environmental problems. Five million deaths each year (9% of deaths globally) are attributed to health problems caused by air pollution, and it is one of the leading risk factors for disease burden (Ritchie and Roser, 2019). Considering the growing attention to tax on the wealthy to pay for the fight against climate change, and the absence of such a related review discussing this phenomenon, makes it interesting for investigation. The current review aims to fill the aforementioned call, and incorporates into the existing millionaire tax literature in several ways. First, this review provides insight into the relationship between climate change and income inequality. Second, this review provides policy implications for the aforementioned problem by explaining the advantages and disadvantages of the millionaire tax, which may help policymakers to broaden their understanding of climate change and income inequality, and to act accordingly.

## 2. Trends in climate change and income inequality

As the climate crisis worsens, the question arises as to how the world will pay for the war against climate change and the destruction caused by climate change. One estimate of the total annual cost for greenhouse gas emissions is €200-350 billion by the year 2030 (Ritchie, 2017). This is similar to other estimates, including €150 billion per year for climate finance (GBE, 2015).

As discussed in Chancel and Piketty (2015), 45% of global emissions are from the wealthiest 10%, with one-third of those living in emerging economies. The poorest 50% are responsible for only 13% of total global emissions (Chancel and Piketty, 2015). As shown in Figure 1, there has been a 62% increase in carbon dioxide in emissions from fuel consumption from 1990 to 2018 (Enerdata, 2019).

**Figure 1.** Metric tons of CO2 emissions from fuel combustion (MtCO2)

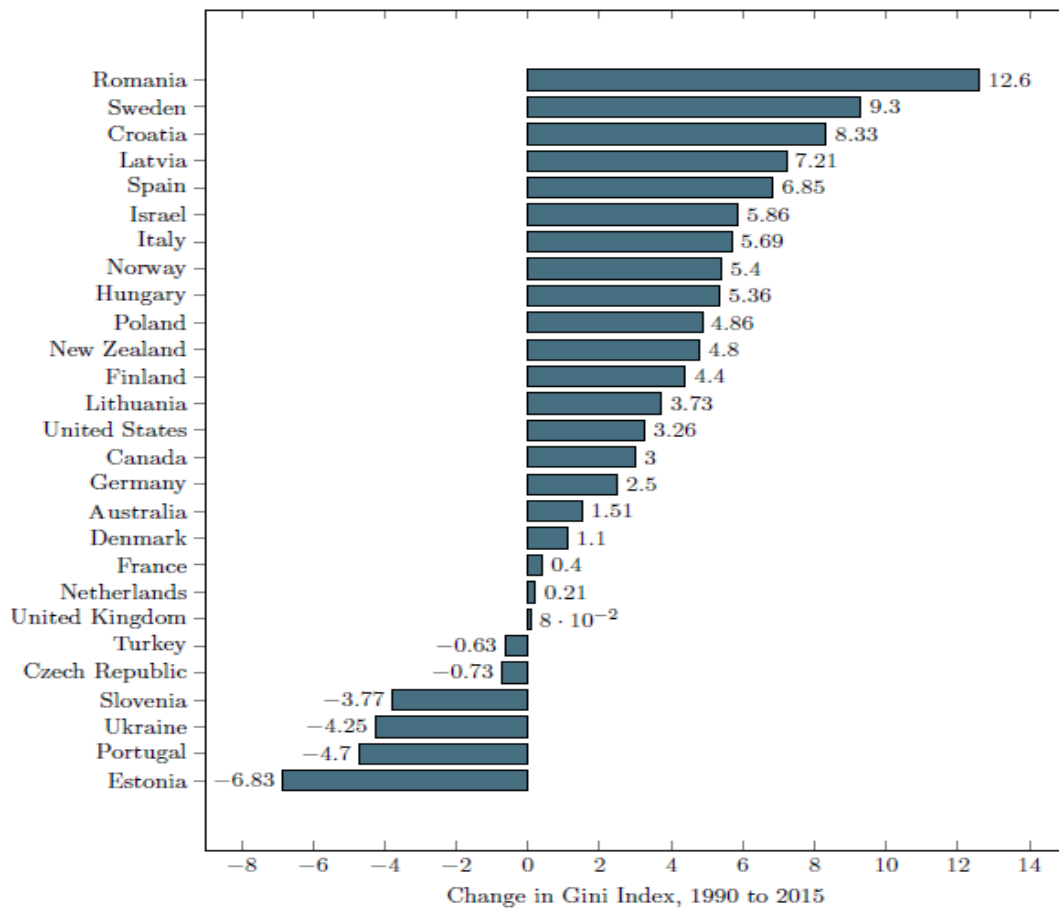


**Source:** Authors own elaboration using data from Enerdata (2019).

Coincidental to the increase in global Greenhouse gas emissions, there has been a corresponding increase in income inequality in the developed world, as shown in Figure 2.<sup>2</sup>

<sup>2</sup> Although Figure 2 shows the increase in inequality using the Gini Index, the results are similar if the Theil index is used.

Figure 2. Change in income inequality, 1990 to 2015



Source: Authors own elaboration using data from Hasell (2019).

The disparity between the rich and poor is not as large as it was 100 years ago, but a troubling trend has emerged the past 20 to 30 years. Whereas income inequality has decreased in the less developed world, income inequality is increasing in developed countries. In 2016, more than 20% of the world's annual income was earned by just 1% of the people, and the bottom 50% earned less than 10% (World Wealth and Income Database, <http://wid.world> (Alvaredo et al., 2018)).

According to Credit Suisse (2018), the top 1% of the wealthiest people on earth now hold 47% of the world's wealth, and the top 10% a staggering 85% (Shorrocks et al., 2018). Among the poor, the poorest 64% of the world's population owns only 2% of the total wealth (Shorrocks et al., 2018).

### 3. Taxing the Wealthy

There are now numerous proposals and suggestions for a tax on the wealthiest people in the world to pay for the fight against the climate crisis. One of the most recent comes from seventeen wealthy Americans, asking candidates for President to implement a tax on the top 1% to help pay for the fight against climate change, among other initiatives (Henderson, 2019)

This type of ultra-progressive tax structure is in direct conflict with recent calls for a flatter tax structure. For example, in Italy and the United States (Daniel and Martino, 2019; Lyman, 2019; Follain and Lorenzo, 2019). In the 2016 election for President in the United States, four of the Republican candidates proposed variations of a flat tax (Schoen, 2015).

Although it will take more than just money to fix the climate crisis, a tax on the wealthiest individuals will help considerably. That is, however, unless the disincentive effect of high progressive tax rates decreases total tax revenue due to a sharp decline in taxable income because of work forgone by those affected by the high tax rates at the highest income levels, or wealthy individuals moving to low tax havens to avoid the new increased taxes. However, Young (2017), claims that this “capital flight” is not a valid concern. He shows that it is possible to tax the rich and not suffer out-migration, particularly if governments consider the less mobile economic elites, who are older, married, have children, and are already established in the place where they live with their own businesses (Alvord, 2019). However, governments do need to be aware that economic elites can easily hide their money because they are more sophisticated than the tax authorities (Young, 2018). However, Young recommends that governments should be careful of the younger generation and highly educated people, as they are more mobile (Lareau and Shiffer-Sebba, 2019). Williamson (2017) shows that almost everyone in the United States supports honest taxpaying, and they see it as a civic duty. This millionaire tax flight topic brings us to the core question of the current study, what is a way to fairly share the cost of climate change?

Mitigation of carbon emissions has been considered as a public good (Hasson et al., 2010). However, this is possible only when countries have healthy budgets and social cohesion. Gangl and Torgler (2019) emphasize that tax compliance by the wealthy can maintain these healthy public budgets and provide social equality. Otherwise, lower tax compliance by the wealthy will cause a drop in contributions to the public budget by a substantial amount, which can fuel political and social turbulence. Additionally, in countries like the United States and Germany, increasing the level of income inequality raises the question among the academicians, practitioners, and policymakers whether wealthy people pay their fair share (Piketty, 2014; Bregman, 2017; Stiglitz, 2018). Although the fairness concept has mixed aspects in various studies, it has been generally accepted as “the most relevant psychological factors ... in their review on tax compliance” (Kirchler, 2006, p. 505). Wenzel (2003) broadly explains three kinds of fairness in the social-psychological justice literature, such as distributive justice, procedural justice, and retributive justice. According to Young et al. (2016), a millionaire tax is part of redistributive social policy; therefore, we cover in this section the theoretical underpinnings on the importance of distributive justice. Distributive justice relates to the fair allocation of resources, and is divided into horizontal, vertical, and exchange fairness (Kirchler, 2007; Hofmann et al., 2008).

While horizontal fairness is associated with the fair distribution of resources within the same income group, vertical fairness is associated with the fair distribution of resources across income groups (Hofmann et al., 2008). In the tax psychology literature, exchange fairness refers to the notion that the taxpayer’s perception regarding equitable exchange is associated with public goods and services provided by the government as the tax rate changes. Put differently, building on equity theory (Adams, 1965), benefits and costs are viewed as the share of public goods and services one receives and the taxes paid, respectively. However, it should be noted that the wealthy differ from lower-income citizens in the perception of the benefits they receive and the costs they pay due to political, social, and psychological conditions. For instance, the wealthy can consider that they are unfairly treated by a tax system (Fung & Au, 2014; Reuben & Riedl, 2013), or they can pay less taxes because the poor cannot be anticipated to reciprocate (Cherry, Kroll, & Shogren, 2005; Frey & Torgler, 2007; Gangl and Torgler, 2019). There are many ways to motivate the wealthy to pay more taxes for the good of society, such as mandatory (e.g., taxes are legally mandatory) or voluntary (e.g., increasing pro-social behaviors towards paying taxes with warm glow and altruism) (Listokin and Schizer, 2012). The best

way to integrate the wealthy into the tax system is by providing policies supporting an environment that they feel more enthusiasm for the payment of taxes.

## Conclusion

The growing call for a tax on the wealthy to pay for the fight against climate change and reduce income inequality has been met on the other side by a call for a flat tax, citing the disincentive to work caused by progressive tax rates. As the cost of the climate crisis grows, politicians around the world must consider how to pay for this grave situation. An ultra-progressive tax, affecting only the individuals with the greatest ability to pay, may be the solution. As per Young (2018), further empirical works based on a discussion of the merits of progressive taxation can be helpful to address the growing economic divide between the rich and the poor.

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