# UNEQUAL DEMOCRACIES 

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## Taxing the 1 percent: public opinion vs. public policy

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## ABSTRACT:

A growing body of research suggests that public policy in formal democracies mostly caters to the interests of the rich and ignores the average citizen whenever the two want different things from government. I argue that the modern income tax system has become a clear illustration of this, and I test the proposition on a least likely case: Norway. I asked Norwegians to design their preferred tax structure by setting tax rates for a group of imaginary taxpayers with annual incomes ranging from low to extremely high. Their answers were matched with registry data on what the same kinds of taxpayers actually paid in income tax in 2018. I find that for approximately $99 \%$ of the income distribution (the bottom $99 \%$ ), the current tax system matches closely with public opinion. However, for incomes in the top 1 percent, tax rates are far below (as much as 23 percentage points) from where ordinary citizens, and in fact the modestly affluent, want them to be. I further examine two potential underlying causes of this discrepancy: The gradual reduction of the top marginal income tax rate since the 1960's, and the preferential taxation of capital incomes, comparing both with public opinion data. My results suggest that even in a fairly egalitarian society like Norway, the rich get away with paying considerably less in tax than what people deem to be fair.

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## Introduction

Research on the link between public opinion and public policy in formal democracies has established two important insights: public policy often adheres to aggregate public opinion, but when affluent citizens and the average citizen diverge in their preferences, government tends to follow the former and ignore the latter (Gilens 2012; Gilens and Page 2014; Bartels 2016; Jacobs and Page 2005; Rigby and Wright 2013; Elsässer, Hense, and Schäfer 2017; Schakel 2021). In the United States, the most studied case to date, these conclusions were probably not shocking given earlier findings about the importance of election campaign financing in that particular context (Ferguson, Jorgensen, and Chen 2015; Ferguson 1995). What is perhaps more surprising is that similar studies have found much of the same results in other-presumably more egalitarian-Western countries, such as Germany (Elsässer, Hense, and Schäfer 2017) and the Netherlands (Schakel 2021). A number of cross-national studies have also concluded that public spending in the OECD is tilted towards the preferences of the rich (Peters and Ensink 2015; Bartels 2017; Giger, Rosset, and Bernauer 2012).

While these insights are highly valuable, we still lack knowledge about which specific policies are most affected by political inequality. That is: if the rich hold disproportionate influence over the policy making process, which policies is it that, as a result, deviate the most from what ordinary citizens want? Studies of political representation are usually not able to answer this question, either because they study policy changes, thus capturing responsiveness at the margins and not overall bias (Gilens 2012; Elsässer, Hense, and Schäfer 2017; Schakel 2021); or simply because opinions and policies are measured on incomparable scales (see Simonovits, Guess, and Nagler 2019 for more on these limitations).

In this paper, I explore the case of high income taxation. To the extent that the rich exert an outsized influence on politics, high income taxation is one of the areas where one would expect this to manifest most clearly. Policy changes in this realm are uniquely felt by the rich, not only in terms of the size of their wallet, but-if we accept that there is a link between economic resources and political power-their future ability to influence government.

Taxes, in particular progressive taxes, are the main way through which governments can confiscate and redistribute the property of the rich. Furthermore, the issue has been at the core of post World War II political conflict, and since then, political regimes have taken wildly different approaches to the issue (Piketty 2020).

The question therefore becomes: Do the highest income earners today pay as much in tax as the public thinks they should? Has the policy choices shaping high income tax rates been supported by the public? And, does the current system fit better with the preferences and interests of high-income citizens themselves? To try to shed some light on these questions I study the case of Norway. Norway is usually considered, both by academics and lay people alike, to be a well-functioning, egalitarian democracy with strong unions giving voice to the working class. Norway therefore provides a useful least likely case, because if high income taxation is out of tune with the preferences of ordinary citizens here, one would not expect the situation to be much better in other rich countries-where, presumably, political influence is even more unequally distributed.

I compare public opinion and public policy on high income taxation in three different ways. To begin with, I fielded a survey where I asked Norwegians to freely design their preferred income tax structure by setting rates for a group of imaginary tax payers with annual incomes ranging from low (ca. $\$ 11,000$ ) to extremely high (ca. $\$ 11$ million). Their answers were matched with registry data on what the same kinds of tax payers actually paid in income tax in 2018. Second, I compare the long-run evolution of the top marginal income tax rate from the 1960's til today, with opinion surveys implemented at key moments in the timeline - that is, right before major changes occurred. Lastly, it is well known that the highest income earners get most of their income from capital investments, which are often taxed at different rates than labor income. Therefore, I asked Norwegians in a second survey, to design their preferred tax structure for capital income and labor income, respectively, comparing these to current tax rates in the Norwegian system. The following is a summary of the main findings after analyzing these data:

1. Top 1 percent incomes are taxed substantively lower than what the public wants: For approximately $99 \%$ of the income distribution (the bottom $99 \%$ ), current effective incomes tax rates match closely with what the public wants. That is, actual rates deviate at most 3 percentage points from average preferred rates. However, for incomes in the top 1 percent, the tax system is far off: On average, citizens want the highest income earners to pay around 45 percent in income tax, while the data suggest they actually pay around 30 percent. ${ }^{1}$ For the very highest income evaluated by respondents ( $\$ 11,000,000$ ) , the actual payed tax rate deviates a striking 23 percentage points from the preferred rate.
2. Citizens want a strictly progressive income tax, but real tax rates are regressive at the top: While citizens want progressive tax rates all the way (including within the 1 percent), actual rates become regressive at the top of the distribution: Earners in the one tenth of one percent pay a lower tax rate than the upper middle class.
3. Despite decades of tax cuts for high incomes, there was never a public demand for this: Popular support for cutting high income taxes was always below 40 percent (even in the beginning of the 1980's), and most of the time it was under 30 percent. Nevertheless, the top marginal income tax rate was slashed from around 80 percent in the 1960's to around 40 percent in the 1990's.
4. The disconnect between actual and preferred tax rates at the top is driven by preferential taxation of capital incomes: Although the public never supported cuts in high income taxation, if the highest earners today had only paid the top marginal tax rate, there would be no gap between preferred and actual tax rates at the top of the distribution. But they don't. Most of their incomes are capital incomes, which increasingly are being taxed at flat, preferential rates. This system stands in

[^0]stark contrast to public opinion, which favors progressive taxation of both types of income, with only a minor advantage for capital incomes (ca. 5 points lower).
5. Little disagreement across party-lines: When asked to design their preferred tax structure, voters all the way from the Labor Party (social democratic) to the Progress Party (far right), set tax rates that were never farther apart from each other than 5 percentage points. Also, while there admittedly was high support on the right for high income tax cuts in the 1960's and 70's, during the course of the 1980's voters across the spectrum essentially converged on opposition towards further cuts. There is also cross-party agreement on taxing capital and labor much more similarly than what is done today.
6. Even relatively affluent citizens oppose the current system: All the above points about right-wing citizens also apply to high income citizens. Importantly, however, high income survey respondents are only modestly affluent, and likely not representative of the truly rich. More on this in the discussion at the end of the paper.

## High income taxation in the 21st century: Out of tune with public opinion?

In a 2007 interview, multi-billionaire Warren Buffet said that he paid less in income tax (as a fraction of his income) than his secretary. ${ }^{2}$ Perhaps contrary to some peoples' expectation, this was not due to tax avoidance or elaborate tax planning. Rather it was a result of how the US tax system is designed: Buffet gets most of his income from dividends and long-term capital gains, which are taxed considerably lower than labor income.

The Buffet-story is no anomalie. Economists Thomas Piketty, Emanuel Saez, and Gabriel Zucman have compiled an impressive dataset based on tax returns, survey data,

[^1]and national accounts, which has made it possible to break down how much tax is paid by different income groups in the United States (Piketty, Saez, and Zucman 2018; Saez and Zucman 2020). ${ }^{3}$ In their book, the Triumph of injustice, Saez and Zucman use this data to show that the structure of the US tax system constitutes, in their words, "a giant flat tax that becomes regressive at the top". Studies using the same method found the same kind of structure in France (Bozio et al. 2018) and Europe in general (Blanchet, Chancel, and Gethin 2020). In Capital in the twenty first-century, Thomas Piketty writes that because of increasing cross-national tax competition, "in most countries taxes have (or will soon) become regressive at the top of the income hierarchy" (Piketty 2014).

Observers often point to two reasons for the decreasingly progressive income tax system in rich countries. The first is the gradual reduction of the top marginal income tax rate (Piketty 2020, 445-56). In the 1960's, most rich countries had top marginal tax rates above 60 percent (in the US and UK it was above 80 percent). These rates have been gradually cut to levels closer to 40 percent, making statutory rates less progressive (Piketty, Saez, and Stantcheva 2014). ${ }^{4}$

The second reason is preferential taxation of capital income. The truly wealthy get most of their incomes not from work, but from returns to capital. Saez and Zucman (2019) describe this as "a constant of capitalist societies: as one moves up the income ladder, the capital share of income rises until it reaches $100 \%$ at the tip-top". The implication is that " $[\mathrm{w}]$ hen governments reduce the tax burden on capital, they almost always reduce taxes for the wealthy" (Saez and Zucman 2019, 97). And indeed, the tax burden on capital has been reduced substantively in recent years. For example, Genser and Reutter (2007) note that dual income taxation-where labor income is taxed progressively, and capital incomes at flat, preferential rates-"has become an important blueprint for income tax reforms in Europe". The duality can easily be observed for the OECD as a whole: while the average

[^2]top marginal labor income tax rate in 2020 is 44.5 percent, the average top tax rate on long term capital gains is 19.1 percent. ${ }^{5}$ Preferential treatment is also common for other types of capital income, such as dividends, and interest on bank deposits (Harding and Marten 2018).

## The median voter model

Is the structure of the modern income tax system, particularly with respect to the tax level for the very wealthy, in line with what the public wants? Although flat taxes that become regressive at the top might seem unattractive, it cannot be ruled out that this outcome is a result of policy makers following the will of the public. If not directly (as in the public is pushing for a regressive system), then perhaps as a result of several tax policy changes supported by the public that together make the system flat or regressive - such as the cutting of top marginal rates, or preferential treatment of capital income. There are at least three potential reasons for this.

First, from the perspective of the classic median voter theorem (Black 1948; Downs 1957) - which posits that parties will gravitate towards the policy preferences of the median voter - the public should be fully able to shape the tax system according to its preferences. The Meltzer-Richard model for example (Meltzer and Richard 1981; Romer 1975), which builds on the median voter theorem, implies that the progressiveness of the income tax will be decided by the voter with median productivity (income). Although the multidimensional of politics means that this model might not work as smoothly in practice as in theory, if citizens care strongly about taxes (which is typically the case), we should see a fairly close relationship between policy and average public opinion.

Second, we know that citizens sometimes favor tax policy choices that mostly benefit the very wealthy and make the overall tax system less progressive. Some examples of this

[^3]from the US include public support for some of the Reagan tax cuts in the 1980's, and the Bush tax cuts in the early 2000's (Gilens 2012, Chapter 6-7). In a very different case, Sweden, the inheritance tax was abolished in 2004 with substantial popular support (Henrekson and Waldenström 2016), and in a later survey only around 41 percent favored reinstating it with a high exemption threshold (Bastani and Waldenström 2021). Furthermore, in a crossnational survey of five Western countries, Alesina, Stantcheva, and Teso (2018) found that in none of the countries was the estate tax supported by more than a third of respondents (even though it only affects a small fraction of the population). Many studies have suggested that such preferences could partially stem from misinformation (Slemrod 2006; Kuziemko et al. 2015; Bartels 2005), or policy options that are too narrowly defined (Hacker and Pierson 2005). Nevertheless, whether by misinformation or manipulation, these were the expressed preferences of the public within the specific context in which these questions were debated.

Third, periods in which the tax system has been made less progressive has sometimes coincided with clear shifts in the voting behavior of the electorate. Many of the changes in high income taxation in North America and Europe happened during the 1980's when right wing parties where bolstering impressive election results, while social democrats had started to decline - and still are (Benedetto, Hix, and Mastrorocco 2020). Furthermore, tax policy was not a hidden issue, but rather some of the main talking points for politicians such as Ronald Reagan and Margareth Thatcher. Even seemingly controversial policies, such as cutting taxes for the rich, were openly embraced by right-wing parties under the justification that this would produce economic growth, which would "trickle down" on the less well off. Regardless of the validity of such claims, it would not be surprising if substantial numbers of these parties' voters accepted them as fact and therefore supported tax changes that made the system less progressive. Hence, such changes might have reflected the wishes of right-wing voters, if not the average citizen.

## The disproportionate influence of the wealthy

The median-voter perspective has some important limitations though. As Alesina and Giuliano (2011) rightly point out, "the main failure of this model relies on the simplistic assumption about the policy equilibrium, namely the one person one vote rule and the median voter result". There is a diversity of political science research showing that even in formally democratic societies, rich citizens can achieve much more influence than what their "one vote" would entail. For example, they might help their favorite political candidates win by contributing to their election campaigns (Ferguson 1995; Ferguson, Jorgensen, and Chen 2019); finance lobby groups that voice their views (Coen, Katsaitis, and Vannoni 2021); or simply stop investing in the economy, pressuring government to adopt policies inducive to continued investment (Przeworski and Wallerstein 1988; Young, Banerjee, and Schwartz 2018). ${ }^{6}$ And indeed, there is an increasing number of studies showing that proposed policy changes are much more likely to be adopted if they are favored by the affluent, than if they are favored by the middle-class or the poor (Gilens 2012; Gilens and Page 2014; Elsässer, Hense, and Schäfer 2017; Schakel 2021). Hence, public policies might end up at very different places than they otherwise would have if the median voter really decided.

One would expect high income tax policy to be particularly vulnerable to such distortions. As a policy area, it is uniquely relevant for the wealthy because their material interests are so clearly opposed to the rest of the public. That is, issues of economic incentives aside, taxes on the highest income earners entail costs exclusively for them, and benefits to the rest of the public through increased tax revenue. Previous research has emphasized that it is precisely on these types of issues, where preferences gaps are large, that unequal responsiveness will have the clearest effects on public policy (Gilens 2009).

Furthermore, we know from public opinion research that attitudes towards taxation

[^4]tend to be heavily influenced by self-interest, at least when personal cost and benefits are clear (Franko, Tolbert, and Witko 2013; Chong, Citrin, and Conley 2001). This would suggest that if policy influence is mainly concentrated at the top of the income/wealth distribution (which is what some research has found; see for example Gilens 2012, 82), then that influence would be used to reduce taxes specifically at the top, possibly resulting in the observed tax rate regression for top earners. Additionally, income taxes, particularly those affecting capital, are quite prone to international competition in a world of free flowing capital. In fact, in a review of the literature, Fuest, Huber, and Mintz (2005) note that " $[\mathrm{m}]$ uch economic analysis has viewed that capital taxes will disappear if real capital is perfectly mobile at the international level". Empirically, there is good evidence that there has at least been a partial "tax race to the bottom" (e.g. Clausing, Saez, and Zucman 2021; Lierse 2021; Keen and Konrad 2013). Hence, governments might experience pressure to cut taxes at the top, not only from the wealthy in their own country, but from multinational companies and investors who are (relatively) free to move capital to the places where they are taxed the least.

## A least likely case: Norway

While tax policy, in a context of political inequality, might be particularly prone to favor the interests of the wealthy over the general public, it is unclear how universal this pattern is likely to be. In this study, I examine the case of Norway, which could be considered a least likely case to find such a pattern. Therefore it is particularly illuminating for the question at hand, because if tax policy deviates much from public opinion here, it seems unlikely that the situation would be much better in other cases. There are several reasons for this. First, Norway is commonly viewed as one of the most well-functioning democracies in the world. For example, in the Democracy Index by the Economist Intelligence Unit, Norway has been ranked the most democratic country in the world every single year since 2010 (EIU
2020). Norway also has long had comparatively strong unions that serve as a counterweight to business influence in the policy making process. In addition, there are limited possibilities for using money to influence election results, since political advertisement on television is banned.

Possibly a testimony to a combination of these institutions, a recent study of Norway comparing public opinion and public policy on hundreds of concrete policy proposals over a fifty year period, found that government appears to have responded to the preferences of both high- and low-income citizens on issues of economic policy. Furthermore, income does not appear to be as strong a predictor of political influence as education (Mathisen 2021). This results stands in contrast to most of the literature on unequal policy responsiveness, which has found few exceptions from the general pattern that the preferences of high income citizens dominate (Bartels 2017, 10). Nevertheless, because of the particular relevance that high income taxation holds for the wealthy, it might be that they are still able the muster the influence that they do have to shape policy in this area, even in a relatively egalitarian context like Norway.

## Data and measures

My main analysis requires two types of data: A measure of citizens' preferred tax rates for a set of incomes (including very high ones in the 1 percent), and a measure of the actual effective tax rates payed at those incomes.

Preferred tax rates: To measure citizens' preferred tax rates, I designed a survey which was included as part of the Norwegian Citizen Panel (NCP) Round 19 in November 2020. The NCP is a nationally representative online panel based on randomized postal recruitment from the national registry. My survey was implemented on a sub-sample of 1,990 of the respondents. The following vignette was presented to the respondents:

Below, we have listed a number of imaginary people with different annual in-
comes. A person's income can come from work, investments, or other sources. For each of the imaginary people, please enter what you think the tax rate on their income should be, i.e. how much of their entire income you think they should pay in income tax. $0 \%$ would mean that you think the person should not pay any income tax.

Then followed a list of 10 people identified as Person A, Person B, etc., with annual incomes ranging from 100,000 NOK (ca. 11,000 USD) all the way up to 100 million NOK (ca. 11 million USD). Unlike previous tax preference studies, who usually have not asked about incomes higher than $\$ 200,000$, in order to capture tax preference on the truly high incomes, I here included incomes that go all the way up to the $0,01 \%$ of the income distribution. ${ }^{7}$ Next to each person was a blank space where the respondent could write any tax rate from 0 to 100 (with decimals if they wanted). Respondents were randomly assigned to either view the list from the lowest earner to the highest, or from the highest to the lowest. A comparison of the average tax rates set by the two groups shows that the order effect was very limited (see Figure A 4$)^{8}$ Additionally, citizens were asked what they believe to be the current effective tax rate for a randomly chosen income. ${ }^{9}$ This is done mainly so that tax knowledge can be controlled for when estimating whether actual tax rates are closer to the preferences of certain groups of citizens.

Actual tax rates: To measure what people actually pay in tax, I ordered data from Statistics Norway, which is the national statistical body in Norway and the main producer of

[^5]Table 1: Effective tax rates for different incomes in 2018

| Target annual <br> income <br> (USD) | Approx. <br> point in the <br> income <br> distribution | Interval <br> around target <br> income <br> (USD) | N taxpayers <br> in interval | Income tax as <br> a share of <br> gross income <br> (average $\%$ ) |
| ---: | :--- | ---: | ---: | :---: |
| $\$ 11,000$ | P5 | $+/-\$ 1,100$ | 47,651 | 7.3 |
| $\$ 28,000$ | P10 | $+/-\$ 1,100$ | 115,402 | 12.0 |
| $\$ 55,000$ | P40 | $+/-\$ 1,100$ | 119,141 | 23.2 |
| $\$ 83,000$ | P65 | $+/-\$ 1,100$ | 38,830 | 27.6 |
| $\$ 110,000$ | P85 | $+/-\$ 1,100$ | 13,805 | 30.7 |
| $\$ 220,000$ | P97 | $+/-\$ 5,500$ | 4,455 | 34.7 |
| $\$ 550,000$ | P99.5 | $+/-\$ 22,000$ | 853 | 33.9 |
| $\$ 1,100,000$ | P99.9 | $+/-\$ 110,000$ | 584 | 32.0 |
| $\$ 5,500,000$ | P99.99 | $+/-\$ 1,1$ mil. | 42 | 28.5 |
| $\$ 11,000,000$ | P99.997 | $+/-\$ 3,3$ mil. | 18 | 25.1 |

Note:
Source: Registry data for Norwegian tax payers for the year 2018. The data were compiled by Statistics Norway in January 2021. Income tax is calculated as the sum of all types of income tax paid to municipality, county, and state, as well as National Insurance Scheme members' contributions (details in Appendix). Locations in the income distribution are from the World Inequality Database (https://wid.world/).
official statistics. ${ }^{10}$ They have registry data based on tax returns for all Norwegian citizens. They provided data from 2018 on taxes payed around the same ten levels of income as those evaluated by respondents in the NCP survey. In order to get robust average tax rates, we constructed intervals around the target incomes to obtain a sufficient number of observations. Naturally, the intervals must be fairly large for the highest incomes since there are very few citizens at those levels. In the data, income means all taxable income, including wages, salaries, and realized capital incomes (i.e. interests, dividends etc.).

Table 1 presents effective tax rates for approximately the same income amounts that respondents in the 2020 survey were asked about (details about how these were calculated can be found in the Appendix). Perhaps the most striking feature of the table is that the effective income tax in 2018 was only progressive up to the $\$ 220,000$ amount. From there one, it was

[^6]in fact regressive: Tax payers near the two highest incomes ( 5.5 and 11 million USD) payed less in tax, as fraction of their income, than people earning around $\$ 110,000$. Importantly however, this regression only applies for incomes at the very top of the distribution (within the 1 percent). Even though the tax rates at the top intuitively seem rather low compared to the rest of the income distribution, if anything they are probably overestimated, since they do not consider unrealized capital gains (more on this in the Discussion), and they do not take tax evasion into account, which we know is much more common among top income earners (Alstadsæter, Johannesen, and Zucman 2019). For these reasons, the discrepancies documented below between preferred and actual income tax rates for high incomes, should be viewed as conservative estimates. The real discrepancies are bound to be larger.

The long-run development: In order to examine whether the evolution of high income taxation has been in line with public opinion, one needs survey data collected at strategic points in time, preferably right before major changes occur. Most of the reductions in the top marginal income tax rate in OECD countries - including in Norway-took place between 1975 and 2000. While survey questions asking specifically about the top marginal rate are surprisingly hard to come by in this period (for any country), the Norwegian National Election Surveys (NNES), luckily, have asked respondents since 1965 about the general tax level on "high incomes". Sample sizes vary from 1,600 to 2,200 between the surveys. The following question was asked, with minor linguistic variations, in 1977, 1981, 1985, 1989, 1993, and 1997: "Using one of the answers on this card, how do you see... Lowering taxes on high incomes?". From 1977 to 1989, respondents answered on a bad proposal-good proposal 5-point scale, while in 1993 and 1997 they answered on an disagree-agree 5-point scale. For the analysis below, support is calculated as the percentage of respondents who chose one of the options above the neutral midpoint of the scales, don't knows excluded. The question in 1965 is a bit different, ${ }^{11}$ but still asks about the tax level on high incomes,

[^7]making it roughly comparable to the question in later waves.
Labor income vs. capital income: To investigate whether the policy of taxing capital incomes lower than labor incomes aligns with popular preferences, I did an additional survey of Norwegian citizens through the company YouGov in October 2021. Respondents where presented with a very similar design as in the aforementioned 2020 survey, where they set tax rates for a list of ten income earners. However, the new survey asked all respondents to first do this exercise for ten earners who exclusively received their income from capital investments (i.e. capital gains, dividends, interests, etc.), and then do it again for ten earners who exclusively received their income from labor wages (the order of the labor and capital tasks was randomized). Question formulations in the survey are available in the Appendix. The preferred tax rates were then compared to effective tax rates for labor incomes, and tax rates for capital incomes in the Norwegian tax system, respectively. ${ }^{12}$

## Results

## Progressive preferences, regressive reality

I begin by looking at what Norwegian citizens want the income tax structure to look like. Table 2 (column 3) shows the average preferred tax rate at different levels of income, given by respondents in the Norwegian Citizen Panel. On average, respondents clearly want a progressive tax structure. Average preferred tax rates vary from 5.9 percent for someone earning $\$ 11,000$ per year, all the way up to 48 percent for someone earning $\$ 11,000,000$ per year. Interestingly, respondents even want progressivity within the top 1 percent of the income distribution (see the 7.2 percentage point difference between the first and last income within the 1 percent in Table 2). However, as shown in Figure A2 (which plots the

[^8]Table 2: Actual and preferred income tax rates by size of income

|  |  | Estimates from survey \% <br> (standard errors in parentheses) |  |
| :---: | :---: | :---: | :---: |
| Annual <br> taxable <br> income | Average effective <br> income tax rate <br> in $2018(\%)$ | Average <br> preferred rate | Difference from <br> actual rate |
| Bottom 99 percent |  |  |  |
| $\$ 11,000$ | 7.3 | $6.0(0.19)$ | $-1.3(0.19)$ |
| $\$ 28,000$ | 12.0 | $13.8(0.20)$ | $+1.8(0.20)$ |
| $\$ 55,000$ | 23.2 | $24.1(0.19)$ | $+0.9(0.19)$ |
| $\$ 83,000$ | 27.6 | $29.5(0.20)$ | $+1.9(0.20)$ |
| $\$ 110,000$ | 30.7 | $33.9(0.21)$ | $+3.2(0.21)$ |
| $\$ 220,000$ | 34.7 | $37.8(0.26)$ | $+3.0(0.26)$ |
| Top 1 percent |  |  |  |
| $\$ 550,000$ | 33.9 | $40.9(0.30)$ | $+7.1(0.30)$ |
| $\$ 1,100,000$ | 32.0 | $43.3(0.33)$ | $+11.3(0.33)$ |
| $\$ 5,500,000$ | 28.5 | $45.8(0.37)$ | $+17.2(0.37)$ |
| $\$ 11,000,000$ | 25.1 | $48.1(0.40)$ | $+23.0(0.40)$ |

Note:
Survey results are from NCP Round 19 (2020). Each respondent was asked about preferred rates for all ten income sizes, resulting in a total of 17,209 observations given by 1,754 respondents. Actual tax rates are based on registry data for Norwegian tax payers provided by Statistics Norway.
full distribution of responses to each income amount), respondents are in more agreement about normal incomes than they are about very high ones. The tax rate standard deviation almost doubles-from 8 points to 16 points-from the lowest to the highest amount (Figure A3).

How do average preferences square with actual effective tax rates payed by different income groups? Quite well for incomes within the normal range. As Table 3 (column 4) shows, for the first six incomes listed ( $\$ 11,000$ up to $\$ 220,000$ ), average preferred rates deviate at the most 3.2 points from actual rates. This income range represent approximately 99 percent of the income distribution (the bottom 99 percent). However, as one moves up from here, the deviation increases rapidly. On the very highest income ( $\$ 11,000,000$ ),


Figure 1: Preferred vs. actual tax rates. Thin lines indicate 95 percent confidence intervals (too small to be visible for some of the triangle line).
actual tax payers payed an income tax rate that was 23 percentage points lower than the average preferred rate. This extraordinary discrepancy between public opinion and public policy can be explained by a combination of the popular preference for progressivity beyond moderately high incomes, and the actual reality of tax rate regression at the top of the income distribution. The comparison of preferred and actual tax rates are plotted in Figure 1, which shows a "crocodile shape"-that is, a close match followed by rapidly increasing divergence at the top of the distribution. The Appendix contains an extended version of this graph (Figure A10) that also plots what citizens believe are the actual rates (when asked to guess). This shows that citizens are largely aware of the discrepancy at the top, but not the full extent of it.

Next, I turn to the question of whether the tax system fits better with the preferences of high income citizens. I should stress however, that the "high income citizens" one typically
encounters in population surveys are by no means wealthy. The NCP 2020 survey has as its highest income category people earning more than $\$ 110,000$. While this could, in theory, include anyone above this threshold, it is not a good measure of the preferences of the truly wealthy (more on this in the discussion). For simplicity, I split the survey respondents into two groups: those part of the top 10 percent of the survey income distribution, and those part of the bottom 90 percent. I then estimated the following OLS model for each income amount on which respondents were asked to provide a tax rate:

$$
\operatorname{dev}_{i}=\alpha+\beta_{x} X_{i}+\beta_{c} C_{i}+\varepsilon
$$

Where $d e v_{i}$ is the absolute distance between the actual tax rate and the preferred tax rate for respondent $i ; X$ is the group variable of interest (in this case an income dummy with the value 1 for the top 10 percent, 0 for the bottom 90 percent); and $C$ is a set of control variables. Without any control variables, $\beta_{x}$ is the raw difference between the tax rate deviation for top 10 percent respondents and bottom 90 percent respondents. A negative number would indicate that the deviation is lower for respondents in the top 10 percent (i.e. actual tax rates are biased towards the preferences of high income earners). Figure 2 (the top line) displays that difference for all ten income amounts. The line suggests that actual tax rates for amounts within the normal range, are no closer to the preferences of high income respondents. However, for the higher amounts (above \$550,000), tax rates are increasingly more aligned with the high income preference, as compared to the preferences of the rest.

Could this bias simply reflect high income citizens knowing more than the average citizen about current tax rates and adapting their preferences to what they know? Previous research has found that citizens, at least partially, form their opinions based on current policies. Furthermore, studies have shown that privileged citizens might be more susceptible to opinion cues from political elites than other people, bringing their preferences closer to current doctrines (Zaller 1992; Popkin 1991). Therefore, I added tax knowledge as a control


Figure 2: Actual tax rates for high incomes are closer to the preferences of top 10 percent income respondents than to the rest.
variable, measured for a given respondent as the absolute distance between their guess for the actual tax rate and the actual tax rate. However, Figure 2 (the middle line) shows that controlling for this variable when estimating the high earner bias, does nothing to reduce it (in fact it slightly increases). Figure 2 also shows that adding 5 additional control variables (education, occupation, age, gender, and region) does little to change the pattern. Finally, the smaller tax rate deviations for the highest earners are statistically significant for the three highest income amounts (see Figure A5).

Still, the bias towards the preferences of the highest earning respondents is not huge. At most, actual tax rates are 5 percentage points closer to their preferences than to the rest. Figure 3, which plots average preferred tax rates by income group, shows that actual tax rates are still quite far from even the preferences of respondents in the top 10 percent. And although these respondents do prefer a flatter income tax structure than other respondents, they do not seem to want the regressivity at the top that characterizes actual effective tax rates (possibly because they are quite far themselves from that point in the distribution).

Finally, does the system fit well with the preferences of any of the political parties' voters? Figure 4 plots tax preferences disaggregated by respondent's party preference ${ }^{13}$. The first thing to note with these results is the remarkable similarity in tax preferences for most of the electorate. Keep in mind that tax policy and redistribution are usually considered the pivotal left-right issues (Kriesi et al. 2006). All the parties' voters agree that the income tax should be strictly progressive for the incomes evaluated, and that the rates payed should go from somewhere below 10 percent to somewhere above 40 percent. Furthermore, if we exclude the Red Party, the Green Party, and the Socialist Left Party (who together obtained 11,6 percent of the vote in the previous parliamentary election), the voters of the other parties are never further apart from each other than 5 percentage points in their preferred tax rates. This includes the Labor Party (the traditional bastion of the left) and both of the right-wing parties (the Conservative Party and the Progress Party).

[^9]

Figure 3: Actual tax rates compared to preferred tax rates, by income group.


Figure 4: Actual tax rates compared to preferred tax rates, by respondent party ID.

Again, for incomes in the bottom $99 \%$, the system is never very far off from the preference of any of the voter groups. Taxes in the 1 percent on the other hand, while they are comparatively closer to the preferences of the right-wing voters, even these voters would on average choose higher, and importantly, progressive, rates at the top of the distribution (see Table A1 for details).

## The evolution of the top marginal income tax rate

Thus far the analysis has shown that tax rates payed at the bottom 99 percent of the income distribution matches closely with public opinion, but that the burden on the top 1 percent is substantially lower than what Norwegians would prefer. I will now look at some potential underlying causes of the discrepancy at the top, and consider the possibility that specific tax policy choices might have reflected popular wishes, even though the resulting tax burden on the rich today is not in line with public opinion. I begin with the long-run reduction in the


Figure 5: The top marginal income tax rate, and popular support for cutting taxes on high incomes, over time. Source: Tax rates from Piketty, Saes, and Stantcheva (2014). Public opinion estimates from Norwegian National Election Studies (1965-1997).
top marginal income tax rate.
Figure 5 shows the evolution of the top marginal income tax rate in Norway. In addition, it shows the estimated share of Norwegians who support cutting taxes on high incomes in each of the relevant National Election Studies. These are marked with vertical lines. A couple of things are noteworthy. First, there was never majority support for cutting taxes on high incomes. Not even in 1977, at the start of the supposed "turn to the right", was this the case. In fact, support was just below 40 percent both in 1965 and in 1977, which was the highest that it ever got. From 1981 onward, no more than a third of citizens supported further cuts. Second, despite of this fact, the top marginal income tax rate was slashed from around 80 percent to 40 percent over the period. During the course of the 1980's alone it was cut 20 percentage points, and with the tax reform of 1992 it was reduced by an additional 10 points. Quite clearly, these vast changes in high income taxation were


Figure 6: Support among different sectors of the public for cutting taxes on high incomes.
not what the average citizen wanted. The question then becomes, were these policies more in line with the preferences of certain sectors of the public?

Figure 6 shows over-time estimates of support for cutting high income taxes among six different social groups. ${ }^{14}$ Just as one would expect, high income citizens are more keen on cutting high income taxes than low income citizens. However, among the affluent there was only majority support for cutting the rate in the 60 s and 70 s. during some of the major cuts in the 80 s and 90 s, only about a third supported it. That being said, support is clearly associated with a respondent's income. Hence, it might be the case that support was higher among richer Norwegians.

Another possibility is that these changes responded to demands from right-wing voters. However, this explanations only seems to be plausible for the initial tax cuts of the early 80's. Looking at support by political orientation (Figure 6) reveals that while left-wingers have been quite stable over time in their opposition towards tax cuts for high incomes, there

[^10]

Figure 7: Preferred and actual tax rates for labor income and capital income. Thin lines indicate 95 percent confidence intervals
has in fact been a radical shift among right-wingers. In 1965 and 1977, strong majorities on the right ( $>70$ percent) did indeed favor tax cuts for the rich. However, already in 1985 the majority within this group had shifted to opposition, and support was down to around 40 percent. During the course of only 8 years (from 1977), right-wing support fell by a whooping 30 percentage points. These results suggest that while right-wingers likely supported the initial high income tax cuts of 1981 (bringing the top marginal rate down to about 60 percent), not even they wanted the subsequent cuts of the late 80 's and early 90 's.

## Preferential taxation of incomes from capital

In the last part of the empirical analysis, I compare citizens' preferred tax rates with actual rates for two different types of income: those originating from wage labor, and those originating from capital investments. As discussed previously, capital incomes are increasingly being taxed at lower rates than labor incomes, which contributes a lot to the regressivity at
the top of the income distribution (Saez and Zucman 2019, 19; Genser and Reutter 2007). In the Norwegian system, labor income is taxed progressively from 0 to 46.4 percent ( 53 percent if one includes employer's national insurance contributions). Capital income is taxed at a flat 22 percent rate. Certain capital incomes-capital gains and stock dividends-are taxed at a somewhat higher effective rate of 31.68 percent. ${ }^{15}$

Figure 7 plots these actual tax rates, as well as the rates that citizens prefer, on average, when asked about the two types of income respectively. Comparing the two panels in Figure 7, it seems that citizens want both labor and capital incomes to be taxed progressively from approximately 10 to 40-45 percent, but with a slight advantage for capital (about 5 points lower than labor income for most of the amounts). The left-hand panel shows that when it comes to labor income this is not very far from actual tax rates. If anything, actual tax rates on some of the highest labor incomes are a bit too high for the average citizen. In contrast, the left-hand panel shows that the highest capital incomes are taxed considerably lower than what citizens want. This is particularly the case for the capital types subject to the 22 percent rate. The same plot looks quite similar if we isolate right-wing voters or high-income citizens in the survey (Figures A8 and A9). These results suggest that the large discrepancy between actual (payed) and preferred tax rates for the 1 percent (see Figure 1) is entirely explained by capital incomes being taxed lower than what citizens want - top labor incomes are not taxed too low.

## Conclusion: How did we get here?

This study provides evidence that even in a fairly egalitarian country like Norway, public policy on an issue of high relevance to the wealthy, can become seriously detached from

[^11]Table 3: Actual and preferred tax rate for the top 0,1 percent, using a more complete measure of income

| Tax rates for the top 0,1 percent |  |
| :--- | :---: |
| Average rate <br> preferred by <br> citizens (std.err) | Actual rate, if one <br> includes total <br> capital gains |
| $45.8 \%(0.36)$ | $11.5 \%$ |
| Note: |  |
| Preferred tax rate from NCP Round |  |
| $19(2020) ;$ actual tax rate for 2018 |  |
| from Aaberge, Modalsli \& Vestad |  |
| $(2020)$ |  |

the preferences of ordinary citizens. Had government followed average public opinion about the tax burden on the highest income earners, the top marginal income tax rate would likely not have been cut the way it was over the past decades, capital incomes would not receive the preferential treatment they currently enjoy in the tax system, and, perhaps most importantly, incomes at the top would be taxed significantly higher than they are today.

The discrepancies documented above between actual tax rates at the top of the income distribution and those preferred by citizens are striking. Nevertheless, they are quite likely underestimated. This is because the official tax data employed here ignore an important part of top incomes, namely unrealized capital gains (that is, capital gains that are not paid out to investors, but withheld in companies). If those incomes are included on the income side of the tax equation, effective tax rates at the top almost reach single digits (Aaberge, Modalsli, and Vestad 2020). Table 3 juxtaposes the average preferred tax rate for incomes in the top 0.1 percent, with the actual tax rate based on a more complete measure of income and tax. ${ }^{16}$ With this arguably more precise measure, earners at the top pay an effective tax rate of 11.5 percent, vastly lower than the 45.8 percent rate preferred by citizens on average.

If high income taxation is so out of tune with public opinion, then why has policy in

[^12]this area still developed in the manner that it has? Is it because it has been in the economic interest of top earners? I believe this is indeed the most plausible explanation, given the existing evidence about the disproportionate policy influence of the rich (Gilens 2012; Gilens and Page 2014; Bartels 2016; Jacobs and Page 2005; Rigby and Wright 2013; Elsässer, Hense, and Schäfer 2017; Schakel 2021; Mathisen 2021).

Although the analysis above showed that relatively high-income survey respondents prefer tax rates for top incomes that are considerably higher than the actual rates, these are not the citizens that benefit most from the current tax system. Standard population surveys (of typically one or two thousand respondents) are not able to pick up the poeple at the very top of the income distribution. Truly wealthy respondents might have expressed tax preferences closer to the current system. Still, it seems unlikely that they would set outright regressive tax rates if asked. In fact some of the best survey data that has been collected on the opinions of actual billionaires (the SESA study in US by Page, Bartels, and Seawright 2013), found 66 percent of them agreeing with the statement "people with high incomes should pay a larger share of their incomes than those with low incomes".

However, while billionaires might support the idea of progressive taxation, they might oppose the specific policy changes that would be required to make that happen. As we have seen, since the highest earners receive their income predominantly from capital, a real progressive income tax system would almost have to include raising taxes on capital incomes from what they currently are. Such a proposal is unlikely to be popular among the wealthy. For example, when the billionaires in the SESA study were asked about their preferred top marginal tax rates, they put a considerably lower rate for capital gains than for labor income (on average they put 17 percent for capital and 34 percent for labor; close to the actual system in the US). Also in Norway, a telling example occurred in the run-up to the 2021 Parliamentary Election, when the left-wing coalition leading at polls suggested that they might raise the wealth tax. A subsequent survey of 114 wealthy Norwegians found that 63 percent of them would "strongly consider" moving to a different country - and take their
assets with them—if that were to happen. ${ }^{17}$
Even if the citizens at the top of the income distribution genuinly wanted to be taxed harder, governments might experience pressure from international investors and multinational companies (i.e. rich people in other countries). Since there are few restrictions on capital flows, it could for example hurt foreign direct investment if a country suddenly decided to increase the tax burden on capital. This is why some economists have stressed the need for cross-national cooperation and coordination when adressing these policy issues (Clausing, Saez, and Zucman 2021).

In sum, my findings suggest that even a political system where money does not seem to be to the most important determinant of political influence (Mathisen 2021), policies of importance to the wealthy-like high income taxation-might still cater strongly to their interests, and be far removed from the preferences of ordinary citizens.

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## Appendix

## Measuring actual effective tax rates for different incomes

For my purposes here, the tax rate of interest is the average effective income tax rate at different levels of income; that is, the total amount of payed income tax as a share of gross income. To that end, Statistics Norway included two measures of payed tax: total assessed tax and wealth tax. Total assessed tax is the sum of all income tax and wealth tax paid to municipality, county, and state, as well as National Insurance Scheme members' contributions. To obtain a measure of average income tax rate, I subtracted the wealth tax from total assessed tax, and divided the remaining amount on gross income. This adjustment is important for two reasons. First, as the name suggests, the wealth tax is not a tax on any flow of income but a tax on capital stock. ${ }^{18}$ Second, even though one could conceive of the wealth tax as a tax on the return to capital, it would be misleading to include it when measuring a person's income tax rate, if one does not simultaneously include total return to capital (i.e. both realized and unrealized capital gains) in the concept of income. In theory, including wealth tax but not total wealth gains could lead one to the obviously erroneous conclusion that some people in Norway pay more than 100 percent in tax. ${ }^{19}$ Unrealized capital gains are not included in Statistics Norway's concept of income, and therefore the wealth tax should not be included in the concept of income tax. It is important to emphasize however, that a more complete measure of income and tax, including unrealized capital gains on the income side and wealth tax and corporate tax on the tax side, leads to lower, not higher, tax rates for the highest incomes than what I present here (Aaberge, Modalsli, and Vestad 2020). This is shown in Table 3 in the manuscript.

[^14]
## Respondents' beliefs about the actual tax rates

Are citizens aware of the discrepancy between their preferences and the actual tax system shown in Figure 1 in the manuscript? Figure A10 plots both the average preferred rates, and actual rates from 2018. In addition, it plots what respondents in the NCP survey believed to be the effective tax rate payed at the different income levels. ${ }^{20}$ Consistently, respondents overestimate what people at "normal" incomes pay in tax. ${ }^{21}$ On the other hand, they are surprisingly skilled at guessing what earners at the top pay: For the six highest incomes, respondents are off by less than 3 percentage points for all but the very highest income. Overall, citizens correctly identify the "flatness" of the structure: they believe a person earning $\$ 55,000$ pays about as much as someone earning $\$ 11,000,000$, a belief that turns out to be quite accurate (except for the fact that both earners pay less than what respondents believe to be the case). However, they do not seem to know about the regressivity at the top of the distribution. Respondents on average set the tax rate for both the $\$ 550,000$ earner and the the $\$ 11$ mil. earner to around $35 \%$. This is correct for the former, but for the latter it is about 10 points to high (the $\$ 11$ mil. earner pays about $25 \%$ ). It seems that Norwegians are relatively pessimistic in their assessment of the progressivity of the income tax, but, as it turns out, not pessimistic enough.

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Figure A1: The evolution of the top marginal income tax rate in OECD countries. Source: Tax rates from Piketty, Saes, and Stantcheva (2014).

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Figure A2: Distributions of preferred tax rates for different annual incomes


Figure A3: Standard deviation of tax rate preferences for different annual incomes.


Figure A4: Limited effect of the order of incomes on average preferred tax rates

Table A1: Preferred tax rates, by respondents' party choice.

| Annual taxable income | Preferred tax rates in \% (difference from actual effective tax rates in \%-points) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Red | Soc. | Labor | Centre | Green | Christ. | Lib. | Consv. | Prog. |
| Bottom 99 percent |  |  |  |  |  |  |  |  |  |
| $\$ 11,000$ | -1 (-8) | $5(-2)$ | 6 (-1) | 7 (-1) | $8(+1)$ | 6 (-1) | $8(+1)$ | 7 (-1) | $6(-1)$ |
| \$28,000 | $7(-5)$ | $15(+3)$ | $14(+2)$ | $14(+2)$ | $15(+3)$ | $14(+2)$ | $14(+2)$ | $15(+3)$ | $13(+1)$ |
| \$55,000 | $17(-7)$ | $27(+4)$ | $25(+2)$ | 23 (0) | $27(+4)$ | $25(+2)$ | $26(+2)$ | $24(+1)$ | 23 (0) |
| \$83,000 | 26 (-1) | $32(+5)$ | $30(+3)$ | $29(+1)$ | $31(+4)$ | $31(+3)$ | $30(+2)$ | $29(+1)$ | $28(+0)$ |
| \$110,000 | $33(+2)$ | $37(+7)$ | $35(+4)$ | $33(+2)$ | $36(+6)$ | $34(+3)$ | $34(+3)$ | $33(+2)$ | $32(+1)$ |
| \$220,000 | $43(+8)$ | $41(+6)$ | $38(+3)$ | $36(+1)$ | $39(+5)$ | $37(+2)$ | $38(+3)$ | $36(+1)$ | $35(+0)$ |
| Top 1 percent |  |  |  |  |  |  |  |  |  |
| \$550,000 | $50(+16)$ | $44(+10)$ | $41(+7)$ | $40(+6)$ | $43(+10)$ | $39(+5)$ | $39(+5)$ | $39(+5)$ | $37(+4)$ |
| \$1,100,000 | $54(+22)$ | $47(+15)$ | $43(+11)$ | $42(+10)$ | $47(+15)$ | $42(+10)$ | $41(+9)$ | $40(+8)$ | $39(+7)$ |
| \$5,500,000 | $59(+30)$ | $50(+21)$ | $45(+17)$ | $45(+17)$ | $50(+21)$ | $45(+16)$ | $43(+14)$ | $41(+13)$ | $42(+13)$ |
| \$11,000,000 | $61(+35)$ | $53(+28)$ | $47(+22)$ | $47(+22)$ | $55(+30)$ | $47(+22)$ | $43(+18)$ | $43(+18)$ | $44(+19)$ |

Note:
Survey results are from NCP Round 19 (2020). Each respondent was asked about preferred rates for all ten income sizes, resulting in a total of 17,209 observations given by 1,754 respondents. Actual tax rates are based on registry data for Norwegian tax payers provided by Statistics Norway.


Figure A5: Actual tax rates for high incomes are closer to the preferences of the high income respondents than the rest


Figure A6: Actual tax rates for high incomes are farther away from the preferences of the highly educated than the rest


Annual taxable income

Figure A7: Actual tax rates for high incomes are closer to the preferences of right-party voters than the rest



Figure A8: Preferred and effective tax rates for labor and capital income, only right-wing voters (H, FRP).


Figure A9: Preferred and effective tax rates for labor and capital income, only high income citizens (household income > USD 77,000.)


Figure A10: Preferred vs. actual vs. percieved actual tax rates. Thin lines indicate 95 percent confidence intervals (too small to be visible for some of the triangle line).


[^0]:    ${ }^{1}$ And this number is quite likely overestimated because the tax data do not take into account tax avoidance/evasion, or unrealized capital gains when calculating income.

[^1]:    ${ }^{2}$ Buffet had calculated that the effective tax rate he payed on his income was 17.7 percent, while the average tax rate for employees in his office was 32.9 percent.

[^2]:    ${ }^{3}$ In contrast to the tax data used in this paper, they consider all types of taxes (VAT, corporate, estate, etc.) at all levels of government.
    ${ }^{4}$ See Figure A1 in the Appendix

[^3]:    ${ }^{5}$ Lobor tax rate includes employee social security contributions. Mean calculated based on Table I.7. Top statutory personal income tax rates at stats.oecd.org. Capital gains tax from https://taxfoundation.org/ savings-and-investment-oecd/. Both accessed October 27, 2021.

[^4]:    ${ }^{6}$ There is also a large literature showing that affluent citizens are more likely to vote than the middleclass and the poor (e.g. Verba, Schlozman, and Brady 1995). However, the size of these differences pale in comparison to the mechanisms where influence can be "bought" directly - economic resources are after all much more unevenly distributed than voting (see Bartels 2016, 258-68; and Gilens 2012, 239-41).

[^5]:    ${ }^{7}$ Zelenak (2008) (372) notes: "As far as I have been able to discover, no survey has ever asked about the maximum fair tax burden for any specified dollar amount of income above $\$ 200,000$." The more recent study, Ballard-Rosa, Martin, and Scheve (2017), asks about higher amounts, but only up to $\$ 375,000$.
    ${ }^{8}$ Specifically, the concern is that if respondents who prefer a strictly progressive tax structure are asked to set rates from lowest to highest, they might end up with higher rates for the top incomes than if they had started at the top. This is because unless such respondents plan all ten rates before-hand, they might end up setting ever higher rates, simply to ensure progressivity. A similar bias could apply for the lowest rates if respondents start at the top.
    ${ }^{9}$ The following question was put to respondents: "With the current tax system, what do you think the average tax rate is for a person earning [X] kroner a year? In other words, how much of their entire income do you think the person pays in income tax? Here, $0 \%$ would mean that you think the person does not pay any income tax on their income." X was randomly replaced with one of the ten annual incomes listed in Table 2. Each respondent evaluated one income.

[^6]:    ${ }^{10}$ See https://www.ssb.no/en (accessed 02.08.2021).

[^7]:    ${ }^{11}$ It asks: "Do you think that our current tax rules are fair or do you think that the tax affects people with somewhat higher incomes unreasonably hard?". Respondents answered either "Current rules fair" or "Too high progression". I use the latter to measure support for cutting high income taxation.

[^8]:    ${ }^{12}$ This analysis does not use actual payed tax as the tax measure but rather effective rates derived from the tax calculator for labor and capital incomes provided by The Norwegian Tax Administration (available at https://skattekalkulator.app.skatteetaten.no/\#/; accessed October 26, 2021). This is because the hypothetical income earners that respondents evaluate in the new survey, who have all of their income from either labor or capital are not easily matched with any actual tax payer.

[^9]:    ${ }^{13}$ The question put to respondents in the NCP19 was: "Which party would you vote for if there were a parliamentary election tomorrow?"

[^10]:    ${ }^{14}$ The estimates are based on OLS-models on a pooled dataset (NNES 1965, 1977-1997; $\mathrm{n}=13,573$ ), where the variable of interest is interacted with a categorical survey-wave variable. In each wave, the income variable was transformed to represent income quintiles (i.e. five equally sized categories from lowest to highest). Right-party voter refers to respondents who reported voting for the Conservative Party or the Progress Party in the latest election. Left-party voter refers to the Labor Party, Socialist Left, Norwegian Communist Party and Red Electoral Alliance.

[^11]:    ${ }^{15}$ See https://www.skatteetaten.no/satser / (accessed October 27, 2021). When it comes to dividends it is common to report the combined rate of the personal tax on dividends and the corporate tax, assuming that the latter falls completely on the investor. However, economists who have studied the incidence of the corporate tax often find that most of it falls on labor wages. A recent review of the literature noted that " $[t]$ hese studies appear to show that labor bears between 50 percent and 100 percent of the burden of the corporate income tax, with 70 percent or higher the most likely outcome" (Enthin 2017).

[^12]:    ${ }^{16}$ This measure also includes wealth tax and corporate tax on the tax side, and assumes that all of the latter falls on the investor. The preferred tax rate is the average of preferred rates for the three highest income amounts from the NCP 2020 survey (all of which are in the top 0.1 percent).

[^13]:    ${ }^{17}$ https://kapital.no/inside/skatt/2021/05/04/7660409/naer-to-av-tre-svaert-rike-vil-vurdere-flukt (accessed October 13, 2021). Most of the wealthy people were valued above 100 million USD.

[^14]:    ${ }^{18}$ As of February 2021 the rate is 0.85 percent (see https://www.skatteetaten.no/satser/formuesskatt/, accessed 02.08.2021)
    ${ }^{19}$ Interestingly, such a claim was made by a Norwegian newspaper in 2015. It said that the Norwegian business magnate Bjørn Kjos "had to pay 1,900 percent in tax". The seemingly extraordinary number is simply explained by the fact that the newspaper chose to include wealth tax as part of Kjos' tax, but to ignore his capital income as part of his income, only considering his relatively modest $\$ 170,000$ salary as CEO (https://www.nettavisen.no/kjos-ma-betale-1-900-prosent-i-skatt/s/12-95-8522427, accessed 01.30.2021).

[^15]:    ${ }^{20}$ The following question was put to respondents in the 2020 NCP survey: "With the current tax system, what do you think the average tax rate is for a person earning $[\mathrm{X}]$ kroner a year? In other words, how much of their entire income do you think the person pays in income tax? Here, $0 \%$ would mean that you think the person does not pay any income tax on their income." X was randomly replaced with one of the ten annual incomes listed in Table 2. Each respondent evaluated one income.
    ${ }^{21}$ One possible explanation for this is that respondents try to guess rates based on their own income tax rate each month. However, the tax rate on labor income that is drawn each month from a Norwegian worker's pay check is somewhat higher (about 5 points) than their actual annual tax rate. This is because tax is only drawn during 10.5 months of the calender year.

