Intro paragraph about political equality (Peters & Ensvik)

In recent years, academics have investigated to what extent policy outcomes reflect the preferences of different income groups to draw conclusions about political inequalities stemming from the influence of money on political power. The pioneering researcher at that time, Martin Gilens, was the first to gauge the preferences of different income groups towards proposed policy changes based on large amounts of survey data. Specifically, he applied a quadratic logistic regression technique to estimate the preferences for the respondents at tenth, fiftieth and ninetieth income percentile towards 1779 proposed policy measures which he used as independent variables to explain whether or not a policy was adopted (Gilens, 2005). He found that whenever the preferences of different income groups diverge, policy outcomes strongly reflect the preferences of the rich whereas they hardly ever reflect the preferences of the poor or middle-income US citizens. In his consecutive work, Gilens and Page (Gilens & Page, 2014) contrasted alternative theoretical traditions to assess which set of actors have how much influence over public policy. Him and his colleague found that economic elites and organized business oriented interest groups have substantial impact on U.S. policy outcomes, providing support for the Economic-Elite Domination and Biased Pluralism Theory and against alternative explanations such as Majoritarian Electoral Democracy or Majoritarian Pluralism (Gilens & Page, 2014). Whereas the authors primary objective of the paper is to empirically unravel unequal income policy responsiveness within the U.S., the authors also point towards potential mechanism that explain why policy outcomes disproportionately reflect the interest of the rich. Namely, the structural dependence of political parties to finance political campaigns leading to a dependence of policymakers on donors and interest group as well as the lobbying by corporations and corporate interests that seem to be more aligned to the preferences of the rich (Gilens & Page, 2014). These findings substantially question the political equality of citizens living in the United States, a fundamental principle of democracy that requires each individual’s political influence to be equal, regardless of social status, income, educational degree, race, religion or any other characteristic. Political Equally is a necessary condition for ensuring that political power is fairly and justly distributed among all members of society and seen as essential for the functioning of democratic societies (QUOTE?). Whereas difficulties for any government to incorporate each citizens preferences at all times can be acknowledged, systemic biases in whose voices are being heard reflect fundamental flaws within any democratic states (Peters und Ensvik, 2015).

Given the severity of these findings a new branch of research has recently evolved led by political scientist who applied different variations of Gilen’s methodological approach, correlating the preferences of various social classes towards political outcomes (Elkj & Iversen, 2020.; Elsässer et al., 2020; Lax et al., 2019; Lupu & Warner, 2022; Schakel et al., 2020). The new wave of research has put forward further evidence of unequal policy responsiveness enriching the literature in terms of breadth and scope. Several studies have contributed to the breadth of the existing literature by analyzing whether unequal policy responsiveness exists in various countries outside the U.S. (Lupue & Castro, 2022; Lupu & Warner, 2022; Peters & Ensink, 2015; Schakel et al., 2020, Elsässer et al., 2020; Schakel, 2021) whereas other studies broadened the scope of the unequal policy responsiveness literature by focusing on educational and occupational inequalities (Elsässer et al., 2020; Schakel & Van Der Pas, 2021).

Examining the impact of the preferences of different social classes on the likelihood of a policy being adopted in Germany, Elsässar et al. (2020) find a strikingly similar pattern that show how policy outcomes correspond to the preferences of the richest ten and one percent of the income distribution, whereas the preferences of the median and the poor do not seem to be statistically significant in deciding whether a policy is implemented or not. Equally, the authors show that the likelihood of policy implementation is significantly associated with the preferences of higher-grade employees, civil servants, and the self-employed, whereas the correlation between the policy preferences of unskilled workers and policy change is small and insignificant (Elsässar et al., 2020). The authors conclude that institutional differences such as private campaign finance and the direct influence of private money in politics cannot solely explain why policy outcomes disproportionately reflect the preferences of the rich, since political campaigns are largely publicly funded in Germany.

Therefore, the representational bias must go way beyond large private donations, as previously has been continually argued for the U.S. (Elsässar et al., 2020).

Studies in other European countries including in Spain (Lupu & Castro, 2022) and in the Netherlands (Schakel, 2021) have found similar evidence that underlines the fact that.

representational bias is not a U.S. specific phenomenon and questions private campaign finance as the main causal driver behind unequal policy responsiveness. Given that all countries operate in political systems with heterogenetic institutional characteristics, the similarity of representational bias in favour of the rich is somewhat puzzling.

Other factors that could potentially explain what has been driving such bias have been explored by several authors. Peters und Ensink (2015) explored the effect of electoral participation on unequal policy responsiveness, testing whether higher participation in elections promotes more equal policy responsiveness. The idea behind this is that citizens that do vote are better represented than those who don’t, consequently policy outcomes are more likely to correspond to the preferences of voters. Assessing what determines political participation, scholars have found structural inequalities in who participates in elections with income being a central determinant in deciding turnout (Marien et al. 2010). Other structural inequalities that have been found include factors such as education gender and age (Marien et al. 2010). Logically, one might assume that policy outcomes might reflect the structural inequalities that determine participation. Accordingly, Peters und Ensink (2015) tested whether higher levels of turnout is associated with more equal responsiveness using a time series dataset with 25 European countries. Specifically, the authors regressed the preferences of low- and high-income groups interacted with the overall level of turnout on the total social expenditure as percentage of GDP as well as the change in social expenditure as percentage of GDP. The authors finds that the overall level of turnout can indeed partly explain the degree to which policy responsiveness is biased, although the systemic difference of the overrepresentation of high-income citizens does not disappear (Peters & Ensink, 2015).

Several studies have questioned the methodological approach of studies such as Peters & Ensink (2015) to draw robust conclusions about unequal policy responsiveness, since aggregate levels of social spending are highly influenced by economic as well as political factors that are beyond the reach of political decision making (Elsässar et al., 2020; Schakel, 2020; Elkjær & Iversen, 2020). When countries experience economic downturns that potentially result in high levels of unemployment, government spending on unemployment benefits will rise, making it difficult to understand whether a rise or drop in spending is linked to policymakers being responsiveness to the preferences of citizens or related to other exogenous factors. Scholars refer to this as the ‘dependent variable problem’ (Schakel, 2020, p.132).

Based on the similarity of unequal responsiveness that has been observed in countries with heterogenous institutional settings as well as the inability of existing literature to provide robust explanations for the causal mechanisms behind what might drives such unequal responsiveness, scholars have brought forward strong evidence that questions the overall interpretation behind the strong correlation between the preferences of the rich and policy outcomes. These authors argue that the reason why policy outcomes heavily reflect the preferences of the rich is not due to any kind of instrumental or structural power that wealthier citizens enjoy and use to impact political decision making, but instead, that the wealthier peoples preferences tend to be based on more accurate information about political and economic conditions and that are generally more aligned to the overall political situation of the state (Elkjær & Iversen, n.d.).

Elkjaer and Iversen (2020) illustrate, through simulations, that if political knowledge differs among groups, one might receive biased findings when investigating preferences for change and policy changes, which is what most research look at. Even though the middle class is politically significant and determines the long-run level of a policy, statistical models can yield the outcome that only the affluent's choices matter, if the rich are more informed than the lower and middle classes. To eliminate bias, they advise investigating long-run policy levels rather than short-term adjustments. Elkjaer and Iversen (2020) use data from 21 advanced democracies to test their claim on redistribution and social expenditure preferences. The findings are consistent, indicating that while short-term variations in spending appear to have been driven by the choices of the wealthy, long-run levels appear to have been determined by the preferences of the middle class.  
In attempt to understand the underlying mechanism that drives policy responsiveness, Elkjær (2020) investigates to what extend economic elites are dominating the democratic decision making in Denmark, one of the most equal countries in the world, and found a puzzling similarity to previous studies in the United States and Europe that shows how political representation increases monotonically with income. The Danish political system bears the most favourable condition for political equality based on some of the highest levels of redistribution and economic equality, a high turnout rate in elections averaging around 86% as well as state funded political parties; therefore, the author rules out such causal mechanism that were previously assumed to be driving unequal responsiveness, but instead, argues that unequal responsiveness may only reflect asymmetries in information (Elkjær, 2020). The author elaborates that the affluent are more involved in political decision and face a higher incentive to be well informed on political and economic issues in comparison to their peers. Specifically, Elkjaer finds that the affluent are much more likely to engage in political discussions in comparison to the poor, even after controlling for the overall level of education. Additionally, the affluent are more informed about the general spending flows of the government household (Wlezien & Soroka, 2011). Proponents of the informational asymmetries consequently argue that when government adopt optimal fiscal policies, the affluent will update their preferences more in line to such policies, leading to coincidental representation of the rich, instead of, as many scholars claim, a causal mechanism in which higher income of citizens results in more political power. As previously mentioned, scholars that studied educational inequalities in representation have also shown how political outcomes are also much more aligned to the preferences of the highly educated (Elsässer et al., 2020; Schakel & Van Der Pas, 2021), something that Elkjaer and Iversen interpret as further evidence in favour of the informational asymmetry hypothesis.   
Concluding, the authors state that information conditions preferences, and as long as information is rising with higher income, informational asymmetries will ultimately translate into unequal policy responsiveness, which also explains how scholars have found such similar degree of economic-elite domination across countries with such heterogenous political landscapes (Elkjær & Iversen, 2020; Elkjær, 2020).

Whilst there is reason to believe that political information does rise with income, the results of studies that have investigated the impact of partisanship, heavily question whether differences in information can solely explain why policy outcomes heavily reflect the interest of the rich (Mathisen et al., 2021; Schakel & Burgoon, 2022). Given that all studies that examine unequal policy responsiveness investigate such within representative democracies, in which elected officials ultimately decide political outcomes, the political orientation of the elected would intuitively seem a deciding factor that conditions which specific policies are being implemented. Arguably, one might assume that left leaning parties that are generally associated with a higher preference for redistribution might be more aligned to the preferences of the lower income population, since the core constituencies of Left parties have often been characterised as risk-exposed wage-earners with relatively low incomes (Garret, 1998). Assessing the impact of partisanship on representational income bias, Lax et al. (2019) discover that wealthy influence is overestimated and dependent on partisanship—when senators must choose sides, party trumps the wallet. Republicans are more likely to give the wealthy what they want, but only if Republican people support the wealthy. As a result, the authors conclude that partisanship generates, modifies, and constrains rich influence (Lax et al., 2019). Investigating the effect of government partisanship in Germany Sweden Norway and the Netherlands, Mathisen et al. (2021) find that the representational gap between the preferences of the richest 10 percent and the poorest 10 percent is heavily mediated by the number of cabinet seats that left-wing parties hold. Specifically, the authors observe that when Left parties hold all cabinet seats, there seems to still be a slight bias in favour of the wealthier citizens, however, when Left parties hold no cabinet seats, the bias in favour of the affluent grows substantially (Mathisen et al. 2021). The authors additionally question whether the 1990s reorientation of Social Democratic parties resulted in a decline in policy responsiveness to the desires of low- and middle-income individuals under Left government involvement. The reorientation of social democratic parties in the 1990s, often referred to as the 'Third Way', was characterised by a move away from traditional left-wing ideologies towards a more liberal, market-friendly approach, associated with greater reliance on market mechanisms to promote economic efficiency, limit public deficits, reduce redistributive policies, and make the labour market more flexible (Green-Pedersen et al., 2001). Interestingly, Mathisen et al. (2021) found that before the reorientation of social democratic parties (between 1960 and 1998), left-wing governments were equally responsive to the preferences of low and middle income citizens on economic and welfare issues, but after the 1998 period, the effect of partisan conditioning on policy responsiveness disappears with regards to economic and welfare issues. The evidence brought forward brings in to question to what extend unequal policy responsiveness is merely driven by asymmetries in information. As the authors argue, why should the wealthy be less informed to elite discourses under Left-leaning governments, and particularly, if it would be information that drives policy responsiveness, why would low- and median-income citizens be better informed about economic and welfare issues before the 1990s (Mathisen et al. 2021)?

In sum, partisanship and political orientation does seem to play an important role in conditioning the effect that income has on political outcomes. However, whilst the representational bias in favour of the affluent seems to be mediated by partisanship, it continues to exist even under left-leaning parties. The question therefore arises as to why such a bias should persist, even among left-wing parties that like right-wing parties, cater to the policy preferences of their core constituencies (Garret, 1998)?

In a meta-study of 25 studies with over 1163 estimates of responsiveness, Elkjaer and Klitgaard (2021) find that the collective research generally suggests that policy outcomes are more in line with the preferences of the rich, but that the results of the estimates vary quite significantly. The divergence can partly be explained by partisanship, but more crucially by model specification: differences in responsiveness are far more pronounced when analysed in a statistical model that combines the preferences of various income groups, rather than using separate models for each income group. Specifically, when the preferences of high- and low-income groups are incorporated in the same statistical model, the most severe types of differential responsiveness, where the coefficient of the affluent is positive (and significant) and that of the lower-income group is negative, are twice as likely to be detected, suggesting that the multivariate model is inadequate for accurately representing degrees of differential responsiveness when preferences are highly correlated (Elkjaer and Klitgaard, 2021). According to Enns (2015), even when preferences differ, there might be significant "coincidental representation" of lower-income groups, because different income groups often share preferences towards many political issues. Hence, it is important to note, that even under a high degree of unequal representation, the preferences of the lower income groups are often likely to be coincidentally represented, making it difficult to correctly depict varied levels of responsiveness in multivariate analysis. According to Peters and Ensvik (2015), as the preference gap between rich and poor grows, so does uneven policy responsiveness in favour of the wealthy; however, this bias diminishes whenever preferences are more aligned.

So far, there has been very little evidence that unequal responsiveness in favor of the affluent varies across political economic contexts (Bartels, 2017). Indeed, the similarity of findings across the United States and other countries is still puzzling most researchers up to date (Elkjær & Klitgaard, 2021; Elsässer et al., n.d.; Mathisen et al., 2021). According to Elkjær & Klitgaard (2021), the parallelism might be interpreted as proof that some degree of political inequality is inherent in liberal capitalist democracies, however, the authors nevertheless expect to see more cross-national variation, given the diverse political-economic landscapes of the United States and Europe. Elsässar et al. (2020) argue that the fact that we observe unequal responsiveness in countries such as Germany and Sweden, heavily questions the relevance of campaign finance as the primary source of unequal representation globally; one would expect less unequal responsiveness in countries where elections campaigns are financed, for the, financed by public subsidies. Other scholars argue that the same argumentation holds for electoral participation as a causal mechanism that drives unequal responsiveness, as Sweden, Germany, Denmark and the Netherlands have higher participation in elections, however policy responsiveness does not appear to differ significantly (Mathisen et al., 2021). Investigating the literature of unequal responsiveness,

Elkjr and Klitgaard (2021) agree that it remains perplexing to see such similar degree of affluent bias in Germany and Denmark compared to the United States, given that the European countries have less income inequality, stronger labor unions, higher turnout rates, and rely less on private campaign finance. The authors argue that although partisanship seems to be a crucial factor that is able to explain some of the extend of affluent bias, the observed differences in income biases across Democrats and Republicans are much smaller than theories of democracies would predict. Finally, whilst much literature has found substantial evidence to show the extent of which policy outcomes reflect the preferences of different income groups, the remains a significant gap in the literature which elaborates the causal mechanism that can explain why policy outcomes correspond so strongly to preferences of the affluent.

To answer why policy outcomes seemingly reflect the interest of the rich, the literature has primarily focused on institutional (e.g. reliance on private campaign finance) and political differences (e.g. partisanship & voter turnout) between and within countries. However, so far there remains a gap in assessing the role of structural economic conditions that underly capitalist democracies. Assessing the role of fiscal constraints on policy responsiveness in Geramany, Elsässar and Haffert (2022) have found that fiscal pressure, measured by the share of government spending spend on tax burden, heavily reduces policy responsiveness for all income groups. The authors assumed that fiscal pressure reduces the governments' ability to respond to the preferences of the poor more than affluent preferences, given their greater reliance on public social protection and social spending. However, the authors found, contrary to what they expected, that fiscal pressure diminishes the influence of all social groups, whereas when fiscal pressure declines, policy outcomes are more aligned to higher status social groups such as business owners and civil servants. Therefore, the authors conclude that inequality of responsiveness is not a result of fiscal pressure, but instead, the bias is more pronounced whenever states have more capacity to respond to the preferences of specific interest groups. Nevertheless, structural economic conditions seem to tell an important story about how responsive policymakers are to citizens demands.  
To limit fiscal pressure, governments, theoretically, could reduce the dependence on debt by raising taxes. However, some scholars argue that the increased mobility of capital has restricted governments capacity to tax (Genschel & Schwarz, 2013). Schwank (2015) argues that increases in capital mobility force governments, regardless of their political ideology, to lower levels of taxation for mobile capital which results in a shift of the tax burden to labor and consumption. Therefore, the increase in capital mobility that came along in the process of financial globalization has shifted the power balance in favor of capital holders (Clift et al., 2004). By undermining the states' capacity to tax and redistribute, capital mobility has compromised governments' ability to respond to citizens demands (Piketty, 2014). Even though all capitalist democracies are embedded in global financial market, no research has so far questioned to what extend differences in capital mobility affect policy responsiveness. Particularly, given that the shift in the tax burden favours capital owners, one might assume that structural power of capital resulting from capital mobility could potentially lead to policy outcomes that are more in line with the preferences of the affluent. This paper attempts to answer whether capital mobility has led to the frequently observed unequal responsiveness by looking at cross-country differences in the changes of the welfare state. To that end, this paper will investigate past literature on mechanisms that show how capital mobility could potentially influence policy responsiveness and specifically, lead to policy outcomes that are more aligned to the preferences of the wealthy.

# Capital Mobility

“We must recognise that the UK is situated in the middle of an active global market

for capital—a market which is less subject to regulation today than for decades.

An expansionary fiscal or monetary policy that is at odds with other economies

in Europe will not be sustainable for very long. To that extent the room for

manoeuvre of any government in Britain is already heavily circumscribed.”

(Blair, 1995: Mais Lecture)

Tony Blair, former prime minister of the Labor Party, refers to the constrains on the state’s ability to decide on its fiscal and monetary policy independently. As the United Kingdom is embedded in a market in which capital can move freely, governments choose their economic policy by not only responding to the publics preference, but also to appeal to the interest of capital. This is what scholars often refer to as ‘policy convergence’ (aka ‘efficiency hypothesis’), a state in which the international mobility of capital can ‘exit’ any economy which therefore subjects’ government policy to international competition (Mosley, 2000). Since governments are dependent on the access to capital and investment, they need to sell their economic policies to investors and act at least partially in the interest of capital. The structural power of capital therefore has the potential to influence elected officials to implement policies that are less in line with the preferences of voters, but instead, serve to attract capital and investment (Gill, 1988). Following this line of argumentation, when capital is less mobile, its structural power is reduced since the potential threat of leaving diminishes. This results in less competition between nations' economic policies in order to attract capital, and therefore creates more space for policymakers to be responsive to their citizens.

To answer whether capital mobility can explain the similarity of unequal responsiveness observed in many capitalist democracies, it is vital to understand whether the political outcomes that result from more capital mobility correlate stronger to the preferences of the rich than to the preferences of the poor. As Blair points out, the active global market in which the UK is situated circumscribes the room to for manoeuvre. Capital mobility is said to reduce the autonomy over other macroeconomy policy options (Mosley, 2005). Since governments are structurally dependent on access to capital, they are required to maintain stable rates of inflation and low budget deficits to preserve credibility on financial markets and to secure cheap access to capital (Gelleny, 2001; Mosley, 2000). Whenever capital is more mobile, the actual or apparent threat of capital flight that policymakers perceive is likely to increase. Subsequently, some scholars argue that governments are inclined to prioritize stable rates of inflation and fiscal discipline over low levels of unemployment (Clift et al., 2004). Indeed Scholars expect the fiscal stance of governments to become more conservative, as governments liberalize their capital regimes ((Heller, 1997). A few researchers claim that capital mobility eventually results in a wide range of convergence of policy outcomes towards smaller governments, lower levels of labour rights and a decline in the welfare state such as reduced social security (Mosley, 2000).

As Elsässar and Haffert (2022) elaborate, the poor are more reliant on welfare spending as well as an overall strong fiscal state, and as a result, they frequently reject measures that reduce fiscal spending or welfare retrenchment. Overall, the less affluent are said to have a higher preference for redistribution and state intervention in comparison to the wealthier citizens (Beramendi et al., 2015). Whenever governments enact contractionary policies to reduce inflationary pressure or to maintain financial market credibility, we would expect this to go against the preferences of the less affluent and therefore likely to increase unequal responsiveness. The same holds whenever governments prioritize fiscal discipline over low levels unemployment, considering that the working class place a higher emphasis in fighting low levels of unemployment rather than maintaining stable rates of inflation (Jayadev, 2018).

Higher capital mobility might also result in other fiscal policy outcomes that are relatively more aligned to the preferences of the rich. Fearing that multinational corporations will cease investing and operating in the domestic economy, scholars that argue in favour of the policy convergence theory predict that governments will enact measures to promote a favourable business climate, such as reduced taxes and deregulation (Gelleny, 2001). Accordingly, it also predicts a ‘race to the bottom’ dynamic in which countries are engaging in harmful tax competition to attract investment. Indeed, research that has analysed the statuary corporate tax rate of 13 European countries found that on average the tax rates have decreased from 49.2 percent in 1983 to 27.2 percent in 2008 (Overesch, 2011). Some have argued that the downward trend of taxes among OECD countries can entirely be explained by the tax competition for mobile capital (Devereux et al., 2008; Bretschger & Hettich, 2002). Generally, the affluent and the poor seem to have a higher preference for expansionary fiscal policies, such as tax cuts, in comparison to contractionary fiscal policies (Elsässar & Haffert, 2022). With regards to corporate tax cuts, the believe of a large part of the population seems to be that corporate tax cuts will benefit most citizens (Bartels, 2005). However, there seems to be strong evidence that shows how cutting corporate tax often results in higher income inequality (Nallareddy, 2018). Correlating the preferences of different income groups to the socio-economic policy preferences of elected representatives, Lupu and Warner (2022) find that representatives throughout the world appear to be more congruent with their wealthy constituents on economic issues. Particularly, the authors find that higher income inequality strongly relates with greater levels of representation bias towards the interests of the wealthy. Other scholars agree that economic inequality perpetuates political inequality, as the rich have more resources to lobby for specific political outcomes in their interest (Houle, 2018). As governments compete in tax cuts to attract mobile capital, the resulting economic inequality is likely to worsen the political influence of lower income citizens.

Compensation hypothesis

In contrast to the policy divergence hypothesis that predicts less government intervention and a decline in social welfare, Rodrik (1998) has found significant evidence that countries economic openness is positively related to countries social welfare state. This is the second hypothesis we will explore in this paper known as ‘policy divergence’ or also referred to as compensation hypothesis. The hypothesis states that a highly open country in economic terms, increases the competition and exposes domestic workers to higher risk (Sen & Barry, 2017). As the workforce is exposed to the competition to the world market, citizens will demand higher levels of government intervention and social protection (Rodrik, 1998). Indeed, scholars argue that the growing economic insecurity among a broad base of the population will increase the citizens demand for domestic compensation (Sen & Barry, 2017).

Proponents of the compensation hypothesis argue that governments are likely to redistributive wealth and social risk, to counterbalance the effect of risk and competition of an open economy, ultimately increasing the political influence of citizens that belong to the lower part of the income distribution and thereby lowering unequal responsiveness. According to Rodrik (1998), countries with more open economies tend to have higher rates of industrial concentration that promotes higher unionization and an increased scope of collective bargaining resulting in government transfer via social protection, unemployment benefits and job training. The policy convergence hypothesis implies that governments lose the ability to choose their economic policies autonomously, as external market forces infringe the state’s agency. It can be visualized as a top-down constraint that limits the ‘room for maneuver’ of policy makers to respond to the democratic preferences of citizens (Mosley, 2005). On the contrary the compensation hypothesis, expects that an increase in economic openness empowers policy makers, through pressures that work from the bottom up, as governments seem to respond particularly to low-income citizens demand of compensation. Indeed, Haupt (2010) found evidence in favor of the compensation hypothesis, as increasing levels of capital mobility and imports were correlated to a leftward shift in parties’ ideology, independent of left or right-wing parties, showing that parties shift their economic policy in response to economic integration. Contrary, Ezrow (2014) found that party representatives of countries that are highly integrated in the world economy tend to be less responsive to citizens preferences. The author underlines those international aspects used to be subordinated to domestic actors and conditions, however now global economic are now the major driving force for policy outcomes. The author finds evidence that that governments only respond to the changes in the left-right shifts in the mean voter position when the national economy is necessarily isolated from the world economy. Mosley (2000) has put forward a more nuanced explanation in the convergence-divergence debate by analyzing how financial market interest actually restrict governments economic policy. Even though the author confirmed that financial markets do ‘punish’ governments for overall macro indicators including high levels of inflation and budget deficits, the markets do not respond to specific changes in fiscal policy, which led to the conclusion that governments still have ‘room to maneuver’ in terms of social welfare and other policies.  
  
Investigating the effect that capital mobility has on economic policy outcomes, there seems to be more literature that implies that policy outcomes will convergence to the interest of capital and consequently increase the degree to which political outcomes reflect the preferences of the rich. Although one would be inclined to believe that governments would compensate financially weaker households in response to the effects of economic globalisation, the compensation theory put out by Rodrik (1998) and revised by Alesina and Wacziarg (1998) is highly contested and appears to lack widespread validity (Liberati, 2007; van Orrdt, 2019).   
Instead, a great deal of the literature agrees, that capital mobility has increased capitals bargaining strength vis-a-vis labor and ultimately shifted the power balance in favour of capital (Jayadev, 2007). Correspondingly, political outcomes in the economic domain, driven by fiscal conservatism as well as the inability to tax and transfer, seem to have converged to the interest of capital and consequently more aligned to the preferences of the wealthy. Drawing from the literature on unequal policy responsiveness, we know that governments were equally reponsive to the preferences of the low- and middle income citizens in economic and welfare issues before the reorientation of the Social Democratic parties (Mathisen et al., 2021). According to some academics, the ‘Third Way’ has at least partially been developed as a reaction to the forces of globalisation (Quote?). In the Mais Lecutre Blair (1995) specifically refers to the global market for capital as the binding constrain that limits the room for manoeuvre for any government in the United Kingdom. The question then arises, to what extend the reorientation of of the Labour Party in the United Kingdom can be ascribed to the unleashed global market for capital. If increasing capital mobility has at least partially been the reason why social democratic parties have shifted their economic policies towards market liberalisms, it will also explain why responsiveness has shifted in favour of the wealthy even under left-leaning parties.   
In sum, this paper hypothesizes that increasing capital mobility has led to economic outcomes that are more in line with the preferences of the rich, and consequently worsened the unequal responsiveness.

Methods:  
  
Data:   
  
  
  
Capital Mobility

To measure capital mobility the literature differentiates between actual (de facto) or potential (de jury) capital mobility. Whereas de facto capital mobility measures the actual capital flows that are entering and leaving a country, potential capital mobility refers to the possibility of capitals leaving and entering a country with respect to the emplaced capital controls (Kose et al., 2009). Most countries have abolished almost all capital controls by the end of the 20th century (Quinn, 2003). Whereas average de jure capital mobility hardly changed, de facto capital flows rose significantly over the last three decades (Kose et al., 2009). Therefore, to exploit significant variation in capital mobility, scholars suggest it is better to use measures of actual capital flows (Kose et al., 2009; Liberati, 2007).   
To capture the threat of capital flight, which is a large sum of what may influences policymaker to be less responsive to (some) citizens demands, some scholars differentiate between more speculative short-term flows (Portfolio Investments) in comparison to more permanent long-term flows (Foreign Direct Investment) (Singh, 2003). However, Claessens et al. (1995) have argued that the differentiation between FDI and PI has become weaker in terms of their potential threat of capital flight, since FDIs can now swiftly be transformed via derivatives and funds into liquid assets. Additionally, Kant (1996) demonstrated how Foreign Direct Investment from abroad significantly influences capital flight. In line with Kose et al. (2009) and Liberati (2007) this paper will use the sum of gross stocks of foreign assets and liabilities as a share of GDP. This measure is commonly referred to as the Lane and Milesi-Ferreti’s (2006, 2007) index and includes all capital flow including Portfolio Investment , Foreign Direct Investment, debt, and financial derivates. The data is retrieved from the External Wealth of Nations Database (Lane & Milesi-Ferreti’s, 2022).

A picture containing text, line, screenshot, diagram

Description automatically generated

In Figure 1 one can observe how drastically capital flows have risen between 1985-2008 for the countries under observation. Whereas almost all these countries have liberalized their capital accounts by the end of the century, the resulting de facto increase in capital mobility is quite divergent between countries and over time. All countries have seen a strong increase in capital mobility, but the extent to which cross capital flows have increased is remarkably uneven. To allow for comparability, the y axis ends at 1000 of capital in and outflows as a percentage of GDP. One can observe that Ireland has passed already surpassed the de facto mobility of 1000% of its GDP after 1996. Whereas investigating the reasons for more mobile capital is beyond the scope of this paper, it is interesting to observe that many that smaller countries often witnessed some of the largest streams of capital (Netherlands, Ireland, Switzerland). Amirkhalkhali and Dar (1993) have argued that inter-country differences in the degree of capital mobility appear to be caused by a variety of institutional and structural variables, however the authors struggle to identify a single trait that may account for the observed disparities. The structural makeup of a particular economy appears to be one component that can help explain such discrepancies, as nations with significant financial sectors have seen some of the highest capital inflows and outflows (e.g. Switzerland and Great Britain).

As previously mentioned, de facto capital mobility incorporates components that are significantly correlated to the risk of capital flight (Kant, 1996). However, one important limitation of this paper is that de facto capital mobility does not fully capture the threat of capital flight. Whereas it is possible to measure capital flight by looking at the direct outflows, this paper argues that it is not necessarily the actual capital flight that influences policymakers to implement policies that are more aligned to the preferences of the rich. Examining the ‘Third-Way’, it appears that many social democratic parties changed their economic policies not as a response to unprecedented capital flight, but rather, as a result of significantly higher net capital inflows and outflows, and thereby capitals potential to exit any given country. Therefore, this paper assumes that capital mobility, and thus its potential to exit, has increased the perceived threat of capital flight, which this paper appears to be sufficient to infringe the policymakers ability to be responsive towards its citizens.

Arguably, one might assume that the assets held by residents abroad, are less likely to influence policymaker to act in the interest of capital in comparison to the domestic assets held by non-residents. Capital held by foreigners might be more prone to capital flight as a response to domestic changes in macroeconomic developments. Following this logic, one might argue that one should only focus on the total liabilities of a country to non-residents to capture how fast capital can exit a country. However, Kant (1996) has shown how, particularly for developing countries, residents also move their capital abroad to hedge against short- or long-term risks at home. Therefore, besides the assets held by foreigners domestically, the assets held by citizens abroad also serve as an important indication on capitals potential to exit. Nevertheless, one might argue that policymakers place a higher weight on conforming to the interest of capital in countries in which capital mobility is largely driven by the liabilities to non-residents in comparison to countries in which capital mobility is mainly driven by the assets that citizens hold abroad. To account for such differences, this paper will also control for the net international investment position of a country (NIIP). A country's NIIP is calculated as the difference between its total external assets and its external liabilities. A country has a positive NIIP if the value of its foreign assets exceeds the value of its external liabilities, showing that it is a net creditor to the rest of the world. In contrast, if external liabilities are more than external assets, the NIIP is negative, indicating that the entity is a net debtor. Like capital mobility, this paper retrieves the data for the NIIP from the External Wealth of Nations Database.

Data

To assess whether capital mobility has led to unequal responsiveness, this paper will investigate to what extend the preferences of different income groups correlate to subsequent changes in welfare for various levels of capital mobility. Given the limited scope of this paper, this paper utilizes the dataset created by Schakel et al. (2020), who investigated to what extend the preferences of different income groups lead to subsequent changes in welfare the state. As previously mentioned, changes in welfare state spending per capita do not always correspond with regulatory changes in social policies, but instead can occur due to economic shocks. To overcome the ‘dependent variable program’, Schakel et al. (2020) matched the preferences of citizens towards t welfare state reforms with the actual changes in welfare state generosity.   
Welfare state generosity better captures the actual entitlement to social programs for each citizen. In comparison to changes in welfare state spending per capita, changes in welfare state generosity are therefore a better reflection of regulatory changes that are implemented as a response to citizens demands.

Schakel et al. (2020) utilize two primary data sources to measure the extent to which changes in welfare state generosity reflect the interest of different income groups. Firstly, the International Social Science Program (ISSP) is employed to quantify citizen attitudes towards specific social policy reforms in various countries. The dataset of the authors includes four waves *(in 1985, 1990, 1996, and 2006).*  of the repeated Role of Government modules by the ISSP in which respondents have been asked whether they would want to see more or less spending on unemployment, pension and health care. Given the substantial amount of time and the wide spectrum of democratic nations in which the survey has been conducted in, the authors are able to exploit significant cross-country and time variation in welfare state developments.

Secondly, the Comparative Welfare Entitlements Database (CWED) is utilized to measure changes in the generosity of social policies, allowing for a more precise assessment of the actual trends in welfare generosity over time. Each unit of observation of the database records the preferences of different income groups within a country at a given year towards the specific welfare policy as well as the changes in the welfare sectors, namely unemployment, pension, and health care[[1]](#footnote-1). Additionally, the database contains several economic variables that potentially confound with the change in welfare generosity in a particular sector including logged GDP, GDP growth, unemployment and the overall level of generosity in the specific welfare policy sector[[2]](#endnote-1). Instead of assessing how capital mobility reduces the influence of different income groups within specific welfare policy sectors, this paper will focus on the overall impact of capital mobility on the influence of different income groups on welfare, regardless of the specific sector for which welfare state changes have been measured. For the analysis, this paper combines the dataset created by Schakel et al. (2020) with the de facto capital mobility as well as the net international investment position for each county within a given year. The combined data contains 130 observations on changes in welfare state generosity, preferences towards welfare state changes per income group as well as other economic control variables among 21 countries between the years 1985 to 2008.

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Figure 2 shows the distribution of capital mobility for all 130 country-year observations. It is striking to see how unevenly the variable is distributed. The solid line at 220 percent represents the median of the variable distribution. Around half of the countries have experienced total capital in- and outflows of slightly more than twice of its GDP between 1985 and 2008. In comparison, Ireland witnessed capital streams that were more than 25 times greater than its GDP in 2006. To measure the impact of capital mobility on unequal responsiveness, it is reasonable to assume that the absolute value of capital mobility plays less of a role in comparison to the relative increase in capital streams. This means that an absolute increase of 100 percent in capital mobility will have the highest effect for countries with the lowest exposure to capital streams. As countries exposure to capital streams rises, the effect that an additional 100 percent capital mobility has on unequal responsiveness diminishes. To focus on the relative instead of absolute increases, the variable is log-transformed for the linear regression. Prior to logging, the variable is transformed to a factor in which 100 percent of capital mobility relative to GDP is equal to capital mobility of 1.

For countries that have capital streams that are exactly equal to the size of its GDP,  
the logged capital mobility variable will therefore denote a zero.

| Table 1: Summary Statistics | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **N** | **Mean** | **Std. Dev.** | **Min** | **Pctl. 25** | **Pctl. 75** | **Max** |
| Preferences of the bottom 5% | 131 | 39 | 21 | -16 | 29 | 52 | 81 |
| Preferences of the Median | 131 | 31 | 25 | -37 | 16 | 51 | 87 |
| Preferences of the top 5% | 131 | 19 | 26 | -53 | 2.6 | 41 | 71 |
| Averange Change in Welfare Generosity | 131 | 0.75 | 3.1 | -7.4 | -0.96 | 1.9 | 13 |
| Total Welfare Generosity | 131 | 9.9 | 3.5 | 0 | 7.8 | 12 | 17 |
| Captial Mobility Logged | 131 | 0.84 | 0.88 | -0.51 | 0.14 | 1.4 | 3.2 |
| Net international investment Position (%GDP) | 131 | -6.8 | 44 | -92 | -16 | 4 | 130 |
| Logged GDP | 129 | 11 | 0.33 | 9.9 | 10 | 11 | 11 |
| GDP growth (%) | 129 | 2.4 | 1.3 | -1.1 | 1.6 | 3.1 | 7 |
| Unemployment (%) | 129 | 7.2 | 3.5 | 3.3 | 4.4 | 8.8 | 22 |

In table 1 displays the summary statistics for the continuous variables operationalized in the statistical analysis. The preferences of the different income groups range from -100 to 100 to represent the percentage share of an income groups preferences that favors welfare reduction (or welfare spending). The average change in welfare generosity is measured as the average change in welfare between the subsequent first and the fourth year after the survey has been.

In line with Elsasser and Haffert (2022) one can observe that on average the bottom 5 percent of the income distribution are more in favor of welfare spending (39%) in comparison to the top 5 percent (19%). As previously mentioned, mobile capital might result in a decline welfare state spending. Capital mobility may put downward pressure on tax revenues, which in turn may result in a decrease in welfare spending. The convergence hypothesis predicts that governments may collect fewer taxes and can scarcely run budget deficits in response to a rise of capital openness (Liberati, 2007). Free capital may easily disapprove of disagreeable tax laws or loose budget measures by transferring abroad.   
If rising mobility has indeed led to a decrease in welfare state generosity, it is likely that capital mobility has led to welfare state outcomes that are relatively more aligned to the preferences of the rich in comparison to the poor.

With respect to the informational asymmetries hypothesis, many academics argue that wealthy people generally have more similar preferences for policy outcomes in comparison to the less affluent (Elkjr and Klitgaard, 2021; Elkjaer and Iversen, 2020). The academics have claimed that the smaller standard deviations resulting from more homogenous preferences may be able to explain why the coefficient of wealthy people's preferences is almost always more statistically significant than the coefficient of the less wealthy. Contrary to what some scholars believed, the data shows that the standard deviation is larger for the preferences of the top 5 percent of the income distribution (26%) in comparison to the preferences of the bottom 5 percent (21%). If the divergence in the standard deviation is large enough to be relevant, it would mean that it would generally lead to an overestimation of the influence of the less affluent in the statistical analysis.

Model:

Schakel et al. (2020) deployed a random intercept model to assess to what extend the preferences of different income groups result in changes in welfare state generosity. The authors found that citizen preferences often result in subsequent changes in welfare state policies. However, the authors also show the richest citizens have a statistically significant influence on later policy changes, but the poorest citizens do not. To determine if capital may have contributed to the wealthy's disproportionate influence, this paper partially replicates the random intercept model. Specifically, the model interacts the preferences of each income with logged capital mobility to understand whether the influence of a certain income groups changes when capital mobility rises.

The extent to which changes in welfare generosity are driven by the preferences of different income groups is dependent on various fixed effects as well as random effects that represent the differences in the political landscapes of countries. Fixed effects are the independent variables that the model controls for which, regardless of the country, might influence the variation in the average change in welfare. Besides the preferences of different income groups, these include GDP, GDP growth, unemployment, and the overall level of generosity. Additionally, the model controls for the wave in which the survey was taken (i.e. for the year) as well as the type of welfare policy assessed (unemployment, health care, pension. However, country specific institutional variables like the level of direct democracy or variations in liberal or social democratic welfare systems may also influence the extent to which the preferences of citizens translate to subsequent changes in welfare. To capture the variability and dependencies within countries, the intercept of the predicted variable ‘average changes in welfare’ is allowed to vary across countries. Therefore, the model allows for assessing the impact of fixed effects while accounting for the country-level variation in the intercepts.

An important assumption of linear regression is that the size of the error terms around the regression line is constant across all values of the independent variables. A violation of such assumption (heteroscedasticity) might lead to a bias in the standard errors. Running a replication of the model constructed by Schakel et al. (2020), this study finds that the likelihood of non-constant error variance (heteroscedasticity) is 99.9%. Since the dataset contains multiple observations for each country, the size of the error terms for the predicted average change in welfare varies depending on the specific countries. In line with Schakel, this paper adopts cluster robust standard errors to account for multiple observations per country.

This research modifies the model of Schakel et al. (2020) in two significant ways. As previously mentioned, Elkjaer and Klitgaard (2021) analysed over 25 studies that

investigated policy responsiveness and found that the most severe types of differential

responsiveness are twice as likely to be detected when the preferences of high- and low

income groups are included in the same statistical model. The authors caution to use

multivariate models when preferences between income groups are highly correlated. As

shown in the appendix, the preferences between the rich and the poor are highly correlated.

To accurately represent degrees of differential responsiveness, this paper will run several

regression and assess the influence of each income group on welfare state changes

independently. Additionally, examining the diagnostics of the model run by Schakel et al

(2020), one can observe how the authors included a substantial outlier that exerts disproportionate influence on the results and therefore is likely to bias the estimates. The appendix of this paper incorporates an outlier analysis that demonstrates the magnitude of the outlier. Additionally, this paper includes one version of the regression models that includes the outlier in the appendix. The results show that including the outlier has a relatively small effect on the size of the coefficients. However, the outlier reduces the significance level from 95% to 90% for some of the observed coefficients.[[3]](#footnote-2)  
  
Figure 3 displays the random intercept models that regress the average change in welfare on the preferences of the three income groups interacted with capital mobility. Due to the interaction effect between capital mobility logged and the preferences of citizens, the preferences coefficients can be interpreted as the change in average welfare when one additional percent of an income group favors more welfare spending, whilst logged capital mobility is held constant zero. Conveniently, the logged capital mobility of zero equates to capital mobility with a factor of one (100%. Of GDP), in which the sum of capital in- and outflows is exactly as large as a countries GDP. As depicted in figure 2, countries with capital flows the size of their GDP are well below the median of capital flows (220%), and therefore can still be considered as relatively sheltered from large capital streams. Within such economies, this paper finds that the preferences of the rich and the median are significant in deciding to what extend welfare generosity changes. The models show when an additional one percent of the rich favor more welfare spending this translates into a 0.04 increase in average welfare generosity. In comparison when an additional one percent of citizens with median income favors more welfare spending, this translates into an increase of 0.037 average change in welfare. The difference between the influence of the middle class in deciding welfare outcomes in comparison to the rich does not appear to be as pronounced when economies are not exposed to large streams of capital. However, the preferences of the median are only moderately significant at a significance level of 90%, whereas the preferences of the rich are also statistically significant at a significance level of 95%.

Table2: Random Intercept Models of Changes in Welfare State Generosity (Average Change from T + 1 to T + 4 relative to T).

|  | Preferences (P95) | Preferences (P05) | Preferences (P50) |
| --- | --- | --- | --- |
| Preferences of the richest 5% (P95) | 0.040\* |  |  |
|  | | (0.018) |  |  |
| Preferences of the poorest 5% (P05) |  | 0.012 |  |
|  |  | (0.025) |  |
| Preferences of the median (P50) |  |  | 0.037+ |
|  |  |  | (0.020) |
| Capital Mobility Logged (t) | -0.857 | -1.656 | -0.961 |
|  | (0.775) | (1.006) | (0.856) |
| Net International Investment Position | 0.856 | 1.383+ | 1.038 |
|  | (0.713) | (0.716) | (0.732) |
| Preferences P95 x Capital Mobility Logged | 0.008 |  |  |
|  | (0.009) |  |  |
| Preferences P50 x Capital Mobility Logged |  |  | 0.008 |
|  |  |  | (0.008) |
| Preferences P05 x Capital Mobility Logged |  | 0.021\* |  |
|  |  | (0.010) |  |
| Total Welfare Generosity (t) | -0.116 | -0.109 | -0.118 |
|  | (0.076) | (0.073) | (0.074) |
| Logged GDP (t) | -1.617 | -2.455 | -2.058 |
|  | (1.387) | (1.600) | (1.476) |
| Growth (t) | 0.171 | 0.162 | 0.161 |
|  | (0.132) | (0.147) | (0.134) |
| Unemployment (t) | 0.001 | -0.001 | -0.007 |
|  | (0.117) | (0.129) | (0.127) |
| Pension Policy (Reference = Health) | 1.218+ | 0.712 | 1.135 |
|  | (0.670) | (0.606) | (0.706) |
| Unemployment Policy (Reference = Health) | 3.523\*\* | 2.225+ | 3.252\*\* |
|  | (1.105) | (1.138) | (1.164) |
| Wave 2 (Reference = Wave1) | 1.581\*\* | 1.959\*\* | 1.750\*\* |
|  | (0.525) | (0.698) | (0.629) |
| Wave 3 (Reference = Wave1) | 1.046 | 1.292 | 1.109 |
|  | (1.309) | (1.349) | (1.342) |
| Wave 4 (Reference = Wave1) | 1.903 | 2.490+ | 2.015 |
|  | (1.410) | (1.500) | (1.479) |
| Intercept | 15.682 | 32.828\* | 20.122 |
|  | (14.840) | (14.184) | (15.702) |
| Num.Obs. | 129 | 129 | 129 |
| R2 Marg. | 0.192 | 0.179 | 0.189 |
| R2 Cond. | 0.231 | 0.263 | 0.248 |
| + p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001 | | | |

To assess whether rising capital mobility has increased the influence of the rich in comparison to the poor and the median, one must assess the interaction terms in table 2. If capital mobility has led to unequal policy responsiveness with respect to welfare state changes, one would expect that the interaction between capital mobility and the preferences of the rich would be positive, whereas the interaction with the preferences of the poor (and the median) would be negative. Contrary to what this paper hypothesis, the models show that the coefficient of the preferences of the affluent does not increase whenever capital mobility increases. The interaction term between the preferences of the richest 5 percent and capital mobility is insignificant. Therefore, the political influence of the rich in determining welfare generosity in the assessed sectors of unemployment, health care or pensions does not increase whenever capital mobility increases. The same holds for the political influence of the median, as the interaction term of the preferences of the median and capital mobility is also insignificant. Besides the difference in significance levels, this paper finds limited evidence for a substantial difference in the influence of the rich relatively to the median in deciding welfare policies at various levels of capital mobility.   
  
Unlike anticipated, the influence of the preferences of the poor in deciding welfare reform actually grows when capital mobility increases. While the coefficient of the poorest five percent does not show any statistical significance, the interaction between capital mobility and preferences is statistically significant at a 95% confidence level. The model shows that the effect of capital mobility on the influence of different income groups to decide welfare state outcomes is only relevant for the least affluent citizens. Specifically, for every unit change in logged capital mobility, the coefficient of the poor (0.012) grows by an additional (0.021). When logged capital mobility increases from 0 to 1, the average change in welfare generosity that results from an additional 1% of the poor favoring more welfare expenditure increases from 0.012 to 0.031.

This means that when one additional percent of the poor favor more spending on welfare for a specific policy, for countries that denote a logged capital mobility of 1.

, except for the

Astonishingly, the

One paragraph paragraph of the control variables

Interaction effect. Not relevant for the rich and the median, but relevant for the poor !   
  
The IIP

Focusing on the difference between R2 and R2 marginal and conditional

How is it possible that influence of the poorest 5 percent grows, when capital mobility rises? The literature is quite frank about the states ability to finance welfare and we know that the poor prefer more welfare spending.

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1. R2 Marginal (or R2 Marginalized): R2 Marginal represents the proportion of the variation in the dependent variable explained by the fixed effects or the predictors included in the model. It measures the goodness of fit of the fixed effects alone, without considering the random effects (such as the intercept at the country level). R2 Marginal provides an assessment of how well the fixed effects explain the variation in the dependent variable independently.
2. R2 Conditional (or R2 Conditional on Random Effects): R2 Conditional takes into account both the fixed effects and the random effects in the model. It represents the proportion of the variation in the dependent variable explained by both the fixed effects and the random effects, considering the overall model structure. R2 Conditional provides a more comprehensive measure of the goodness of fit, accounting for both the fixed and random effects in the model.

It's important to note that R2 Marginal and R2 Conditional are additional metrics that supplement the traditional R2 value. They provide insights into the specific components of the model that contribute to the explained variation in the dependent variable, allowing for a more nuanced evaluation of the model's performance.

In summary, R2 Marginal focuses on the variation explained by the fixed effects alone, while R2 Conditional considers the combined contribution of both fixed and random effects to the explained variation in the dependent variable.

In the outlier analysis of the appendix of the paper,

the results Based on the diagnostics, this paper

continues

Correlation table between preferences.

**Limitation and thoughts:**

**In line with Elsasser, like interest burden, we see that capital mobility leads to outcomes that are less in line wit**

Distinction between leading to political outcomes that do not reflect the interest of the poor, however, the correlation between the preferences and welfare state changes actually increases. Indeed the the influences of the poor seem to grow, even though political outcomes were previously much more aligned to their interest.

Since proponents of the compensation argument argue that citizens will adjust their preferences dependent on the risk they are exposed to we regress to what extend p95 is correlated to capital mobility.

ff

The preferences of the least affluent seem to be a deciding factor in limiting the amount of welfare retrenchment

Endogeneity:   
control for unit fixed effects and time fixed effects, however, this paper  
Inferential validity,

Include p90 and p10 in your sensitivity analysis.

Explain more in detail county year topic.   
  
Discussion: The preferences of the richest 5 percent, would not necessarily equate to the preferences of capital. The richest 5 percent still are doctors, lawyers and stuff, one would have to focus on the preferences of the richest 0.01 percent

1. For more information on the dataset, please visit the online supplementary material of Schakel et al. (2020) retrieved from: <https://journals.sagepub.com/doi/full/10.1177/0032329219897984#supplementary-materials>

   [↑](#footnote-ref-1)
2. # Appendix

   ## Outlier Analysis

   [↑](#endnote-ref-1)
3. For a more detailed explanation, visit the outlier analysis in the appendix. [↑](#footnote-ref-2)