Is the member states’ curse the EU’s blessing? Inequality and EU regime evaluation

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Preprint

Forthcoming in the *Journal of Common Market Studies*
Introduction

How does inequality shape public opinion on the European Union? Wealth divides across the EU are large and deepening integration has increased inequality within member states (Busemeyer & Tober 2015; Bouvet 2010). As a result, inequality induces redistributive conflicts across Europe’s complex multi-level governance system (Kuhn et al. 2016). Yet, as member states keep control of the bulk of redistributive social policies, EU citizens face very different domestic conditions with respect to inequality and governance of redistribution (Burgoon 2009). While existing research has extensively covered the social and political consequences of inequality for national democracies (Solt 2008; Schäfer 2010; Gallego 2016; Andersen et al. 2014), we so far lack insights on how inequality shapes evaluations of the EU’s multi-level governance system.

This paper analyzes the effect of rising income inequality on EU regime evaluations, which are defined as the assessment of political institutions’ rules and procedures. Building on benchmark theory, I argue that citizens simultaneously evaluate the national and EU regime (de Vries 2018). The relative comparison of the national and EU governance levels results in an EU differential that is strongly driven by within-country changes in inequality. This differential is explained by two mechanisms. First, adverse social and political consequences of inequality on national democracies strongly erode national regime evaluations. This leads to an improvement of EU regime evaluations in relative terms. Second, citizens compensate negative national conditions by redirecting hopes to the supranational level. This compensation mechanism further tilts the differential in favor of the EU. An empirical analysis of change in national and European parliament trust across 27 member states and 14 years demonstrates that rising income inequality improves the EU differential. Inequality’s adverse effects on national parliament trust mainly drive this effect. As societies grow more unequal,
national democratic systems lose support. This effect does not translate into evaluations of the EU’s system. Rather, the effect of inequality on EP trust goes into opposite directions, since citizens appear to improve their opinions of the EU regime as domestic inequality increases.

The paper makes three main contributions to existing research. First, it outlines the connection between inequality and regime support in the European Union. So far, inequality has only been considered a cause of European policy evaluations (Kuhn et al. 2016). I show that inequality has a diametrically opposite effect on regime evaluations. Second, the paper jointly considers national and supranational regime evaluations. As recently suggested, public opinion towards the European Union is formed through a process of benchmarking the national against the supranational level (de Vries 2018). The asymmetric effects of inequality on national and European trust make this approach particularly useful. Third, I provide an empirical contribution by analyzing temporal variation in regime evaluations across the whole EU using an original dataset.

**Integration, Inequality, and Euroscepticism**

Over the past years, studies on economic inequality have taken up European integration as an instance of globalization that nurtures economic inequalities. Busemeyer and Tober (2015) find that political integration in the EU has increased inequality. The Single Market and the European Monetary Union exacerbated inequalities in Europe (Bouvet 2010). Inequality also increased because compensation for negative externalities of EU integration are insufficient. Supranational redistribution via the EU’s regional policy and its structural funds is moderate in scope (Beramendi 2012; Burgoon 2010). Furthermore, European redistribution suffers from
inefficiencies, corruption, and political biases (Dellmuth 2011; Dellmuth et al. 2017; Glaurdić & Vuković 2017).

Accordingly, redistributive concerns have played a central role in explanations of public opinion on European integration (Eichenberg & Dalton 1993; Gabel 1998; Kuhn et al. 2016). Utilitarian accounts suggest that the costs and benefits of European integration are distributed asymmetrically across the European population (Gabel 1998). Accordingly, whether citizens win or lose from integration shapes their opinions on the EU (Hobolt 2014; Simpson & Loveless 2017). Indeed, a number of studies indicate that inequality does affect preferences towards EU integration. Research on redistributive preferences in the EU's multi-level system has demonstrated that economic inequality shapes citizens' opinions of fiscal institutions (Beramendi 2012). Moreover, increasing income inequality has strengthened Euroscepticism over the past decades (Hakhverdian et al. 2013; Kuhn et al. 2016; Simpson & Loveless 2017). Inequality's effects further translate into the electoral arena, as supranational redistribution and regional inequalities can drive Eurosceptic voting (Schräff 2019b).

Research by Kuhn et al. (2016) establishes a robust association between rising income inequality and Eurosceptic public opinion. More specifically, using a long time-series on 12 Western EU states, Kuhn et al. (2016) demonstrate that rising within-country inequality decreases EU support. This effect appears particularly pronounced among low-educated respondents. While this research provides important insights on the effect of inequality on policy and output related political support, we so far lack insights on other dimensions of Euroscepticism. Public support for European integration is a multi-dimensional concept (Boomgaarden et al. 2011). Accordingly, citizens can form opinions on the output as well as the procedural design of a political system (Hobolt 2012). This conceptualization reverberates in the classical literature on specific and diffuse political support (Easton 1975). Moreover, this
distinction loosely resembles the idea of input and output legitimacy in the EU (Hobolt 2012). Recently, de Vries (2018) reformulated this differentiation in terms of policy and regime evaluations.

This paper is going to investigate how inequality relates to regime evaluations in the EU’s multi-level governance system.

**Rising Inequality and Change in EU Regime Evaluations**

Income inequality is a measure of how strongly wealth accumulates in the hands of a few citizens. Since the national level remains the most important reference point for EU citizens (Kriesi et al. 2008), I consider income inequalities within member states as most informative (cf. Kuhn et al. 2016). Income inequality has been demonstrated to be an important factor in our understanding of democratic politics. Whether people approve or disapprove of democratic processes rests to a certain extent on their relative income position. This is because material resources shape individuals’ perceived and actual influence on politics (Solt 2008; Schraff 2019a; Verba et al. 1995). As a result, economic inequality tends to distort political equality. Indeed, research on the quality of political representation has found that poorer voters’ preferences are less aligned with parties if societies are more unequal (Rosset et al. 2013).

However, we so far have limited insights on how inequality shapes public opinion on the European Union. Kuhn et al. (2016) argue that citizens perceive rising inequality as a problematic output of the current political system. They suggest that people do not differentiate between globalization, modernization, and integration, which leads them to blame the EU directly. National politics can amplify this process. Research has found limited
evidence that cuing by domestic politicians shapes the extent to which negative economic outcomes translate into EU support (Armingeon & Ceka 2014). Kuhn et al. (2016), therefore, expect that inequality depresses citizens’ evaluations of the EU’s policies and outputs. However, we so far lack investigations of whether inequality shapes citizens’ evaluations of the procedural dimension of Europe’s multi-level democracy. This requires research on how inequality simultaneously shapes evaluations of the national and supranational political system.

To fill this gap, this paper adapts the distinction of policy and regime evaluations of democratic systems. Regime evaluations capture the assessment of political institutions’ rules and procedures. Contrarily, policy evaluations refer to the content and outcomes these institutions produce (de Vries 2018). Kuhn et al. (2016) have demonstrated convincingly that inequality increases citizens’ skepticism towards the EU’s policy outputs (also see Simpson & Loveless 2017). However, what are inequality’s effects on EU regime evaluations? In the following, I outline a number of possible mechanisms on how inequality can inform regime evaluations in the EU’s multi-level governance system.

The following theoretical discussion accounts for the complex interplay between citizens’ national and European evaluations. I argue that the effect of inequality on regime support is distinct from its relation to policy evaluations. This is because inequality does not affect evaluations of the national and European procedural dimension symmetrically. While inequality appears to rather symmetrically depress support for domestic and European policies (Kuhn et al. 2016; Simpson & Loveless 2017), I suggest that inequality first and foremost depresses national regime evaluations. This is because rising inequality decreases social and political trust within member states. Previous research suggests that income inequality increases fears of being exploited by other members of society and reduces the
perception of chances for equal opportunities (Rothstein & Stolle 2008). Indeed, experimental evidence shows that perceiving the income distribution as more unequal results in reduced pro-social attitudes among the poor (Gallego 2016). This has consequences for national regime evaluations, as social trust is an antecedent cause of institutional trust (Dellmuth & Tallberg 2018).\(^1\) Inequality is also associated with higher levels of corruption, which further deteriorates trust in individuals, public services, and government (Rothstein & Uslaner 2005). Moreover, citizens can attribute negative outputs of the national system to insufficiencies in the procedural dimensions (Bengtsson & Mattila 2009). As a result, it is well established that countries with high income inequality show lower levels of social and institutional trust (Schäfer 2010; Andersen et al. 2014).

The social and political consequences of inequality directly affect the quality of member states’ democracies. As income inequality rises, national levels of social and institutions trust erode and patterns of political inclusion and participation become more unequal (Schäfer 2010; Dellmuth & Tallberg 2018; Solt 2008). These are re-enforcing processes. As national democracies grow more unequal, citizens’ perceptions of domestic political institutions erode further. This argument assumes that people attribute procedural issues that emerge from rising inequality primarily to the domestic regime. This is a reasonable assumption if one considers that social policies largely remain in the hands of EU member states. The nature of territorial inequalities have ensured that fiscal policies in the EU are still strongly decentralized (Beramendi 2007). Welfare state policies are in the domain of member states and the nature of the national redistributive systems shape citizens’ opinions of the EU (Burgoon 2009).

\(^1\) This means that social trust is one mediator translating inequality into institutional trust (inequality \(\Rightarrow\) social trust \(\Rightarrow\) regime evaluations). Consequently, social trust should not be considered an omitted variable, but a mediator. Note that a regression model should not condition on a mediator if we are interested in the effect of inequality (Toshkov 2016).
Therefore, if inequality rises, it should put pressure on the governance level that keeps the main responsibility for containing inequalities – namely the national level.

H1: Inequality negatively affects national regime evaluations.

In contrast, inequality’s effect on European regime evaluations is more ambiguous. Here, three different mechanisms seem plausible. First, there is a possibility that regime evaluations move together with policy evaluations. Under this account, inequality symmetrically depresses national and supranational regime evaluations. This effect appears reasonable if national publics are not able to differentiate between the two governance levels. Rising inequality therefore erodes national and supranational regime evaluations. This argument is supported by the finding that national outcomes and institutional performance act as a proxy for voters evaluations of EU governance (Anderson 1998). As national democracies fail to contain inequality and grow more unequal, voters can extrapolate dissatisfaction with domestic procedures to the European level (Harteveld et al. 2013). As a result, hypothesis 2 expects that inequality depresses EU regime evaluations. Further, this argument suggests that inequality is not able to shift the EU regime differential, as national and EU evaluations move together.

H2: Inequality negatively affects EU regime evaluations.

However, previous research on trust in European institutions suggests that rising inequality could improve EU regime evaluations. According to the compensation hypothesis, worsening national conditions make the EU more attractive compared to the national regime (Sánchez-Cuenca 2000a; Muñoz et al. 2011). Indeed, Munoz et al. (2011) show that domestic publics compensate low average national institutional trust by resorting to the EU. This aligns with arguments on the relative attractiveness of the EU under worsening domestic conditions
(Sánchez-Cuenca 2000b). As the quality of the national regime erodes, citizens become more likely to turn to the European regime as a life buoy (Harteveld et al. 2013). This compensation logic suggests that EU regime evaluations improve as average national regime evaluations erode.

H3a: Inequality positively affects EU regime evaluations, as eroding trust in national institutions is compensated by turning to the EU.

H3a has important consequences for how domestic publics evaluate the EU regime differential. H3a integrates the negative domestic effects of inequality outlined under H1 and formulates an expectation on how inequality and changes in national trust jointly affect EU regime evaluations. More precisely, H3a proposes a two-step mediation model. First, the adverse effects of inequality on national democracies should strongly depress national regime evaluations. Second, a compensation mechanism expects that a decrease in national trust translates into improved EU regime evaluations. As inequality rises, this mechanism should shift the EU differential in favor of the European Union.

The compensation hypothesis presented under H3a rests on the assumption that rising EU trust is driven by national publics’ loss of trust in the national regime (Muñoz et al. 2011). However, there is a possibility that rising inequality improves EU regime evaluations independently of changes in national trust. This mechanism seems plausible if people can reasonably believe that certain problems are more adequately addressed at the international level. Recent research from political psychology demonstrates that people have distinct beliefs on supranationalism that are highly informative of EU support (Peitz et al. 2018). As rising inequality is caused by processes of globalization and integration (Milanovic 2013), citizens might come to believe that supranational institutions are more valuable in addressing
their concerns. Indeed, there are powerful transnational drivers of income inequality. Tax avoidance, for instance, is a highly visible cause of income inequality (Borck 2007). Such transnational issues, however, can only be addressed via international cooperation and a demand for supranational solutions can increase the legitimacy of EU governance in the public eye. Furthermore, this process can be amplified in contexts of low trust in the problem solving capacity of national regimes. Here, rising inequality is already in line with public beliefs about the insufficiency of national institutions, but further amplifies the perceived need for supranational governance. Under this account, people shift their hopes to the EU out of an increased belief in the need for supranational problem solving. This argument can still be stated in terms of a compensation logic, as citizens compensate negative domestic outcomes (e.g., rising inequality) with increased EU regime support. The underlying mechanism, however, does not expect that inequality’s adverse domestic effects are mediated by eroding national regime evaluations.

H3b: Inequality positively affects EU regime evaluations, due to an increased need for transnational problem solving capacities.

The theoretical discussion demonstrates that the EU’s complex multi-level governance system allows for a number of plausible mechanisms that link inequality to EU regime support. Table 1 summarizes the expectations. Theorizing a positive effect of inequality on EU regime evaluations (H3a & H3b) comes with some small, but important ambiguities regarding the underlying causal structure. H3a exclusively rests on the mediating role of national evaluations, integrating the mechanism highlighted in H1 and extending it through the compensation hypothesis forwarded in existing research. In contrast, H3b allows for the possibility that inequality independently pulls national and EU regime evaluations in opposite directions. H3b, therefore, expects the largest positive impact of inequality on EU regime
evaluations. Under H3b, inequality can increase or decrease national regime evaluations as suggested in H1 and H2. Additionally, H3b expects that inequality can improve EU evaluations independently of national evaluations. This process of opinion formation closely mirrors the benchmark theory of Euroscepticism highlighted above. Figure 1 depicts the benchmark model on the left. In contrast, the traditional compensation hypothesis implies a mediation model that is presented on the right of Figure 1.

The proceeding theoretical discussion outlines potential effects of income inequality on regime evaluations in the European Union. The effects-based, large-N approach leaves – by default – some ambiguities on the micro-level mechanisms. The economic rational forwarded above expects that national publics have some information on national income inequality to adjust their political evaluations accordingly. However, research suggest that citizens frequently have a poor knowledge about the level of inequality (e.g., Kaltenthaler et al. 2008). Yet, my argument does not require publics to have correct knowledge on the level of income inequality. This paper relies on an analysis of within-country change in inequality and regime evaluations. Hence, I do not expect publics to have precise perceptions of the absolute level of income inequality. I merely expect that public opinion follows larger macro-economic trends, such as strong rises or declines in income inequality. Previous researcher demonstrates that political trust and Euroscepticism is strongly informed by macro-economic trends (Van Erkel & Van Der Meer 2016; Nicoli 2016).
Figure 1: Comparison of alternative causal structures

Benchmark Model

Inequality

EU Regime

EU Differential

National Regime

Mediation Model

Inequality

National Regime

EU Regime

(H3b)

(H3a)

Table 1: Overview of theoretical expectations

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Mechanisms</th>
<th>Expected effect of inequality on EU regime differential</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Inequality negatively affects national regime evaluations.</td>
<td>Decreasing social trust; increasing political inequality</td>
<td>+</td>
</tr>
<tr>
<td>H2: Inequality negatively affects EU regime evaluations.</td>
<td>Cuing by domestic politics; extrapolation</td>
<td>-</td>
</tr>
<tr>
<td>H3a: Inequality positively affects EU regime evaluations, as eroding trust in national intuitions is compensated by diverting trust to the EU.</td>
<td>Compensation of eroding domestic regime; H1 is integrated via mediation</td>
<td>+</td>
</tr>
<tr>
<td>H3b: Inequality positively affects EU regime evaluations, due to an increased need for transnational problem solving capacities.</td>
<td>Inequality increases perceived need for supranational problem-solving; H1 or H2 can coexist as independent mechanisms</td>
<td>++</td>
</tr>
</tbody>
</table>

Alternative Explanations

This paper argues that income inequality shapes EU regime evaluations. However, a number of factors could jointly move with inequality and regime support. The effect of inequality could
be confounded by other macroeconomic performance measures, such as unemployment, GDP growth, and globalization, which are important determinants of Euroscepticism (Kuhn et al. 2016; Van Erkel & Van Der Meer 2016; Nicoli 2016). The degree of globalization of national economies could correlate with income inequality and might shape public opinion on European integration. Here, inequality could be a mere expression of a larger process of economic integration and globalization across the EU. Moreover, effects of inequality on EU regime evaluations might be driven by political polarization. Rising income inequality is correlated with stronger polarization of national party systems (Han 2015). In turn, a stronger presence of radical right and left parties does imply more Euroscepticism. The empirical analysis will therefore control for the degree of polarization of the national party system.

Data and Method

To test the effect of income inequality on EU regime evaluations, I have compiled a dataset that covers 27 EU states over the period 2004 to 2017.² In line with de Vries (2018) and Muñoz et al. (2011), I am measuring national and EU regime evaluations with standard survey items on trust towards the national and the European parliament. I use Eurobarometer data as they cover all EU countries and provide yearly information. Eurobarometer measures trust in the national and European parliament discreetly, with respondents selecting the categories “tend to trust” or “tend not to trust”. I calculate country-level averages of national and EU parliamentary trust, weighting the data with the accompanying post-stratification weight. From this, the EU regime differential is calculated, subtracting EU parliament trust by national

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² The data includes all states of the EU-28, except of Malta. Malta is dropped due to many missing values on several variables.
parliament trust (de Vries 2018). Note that I aggregate the Eurobarometer data as inequality is a country-level factor. The theoretical argument is concerned with the macro level association between inequality and EU regime evaluation, which results in country-years as unit of analysis.\(^3\) Income inequality is measured by the Gini coefficient on disposable household incomes. The data is taken from the Standardized World Income Inequality Database (Solt 2016).

The control variables are measured as follows. In line with Kuhn et al. (2016), I am using the KOF globalization index to capture the degree of globalization (Gygli et al. 2019). To account for macro-economic performance, I am using the gross domestic product (GDP) per capita and the unemployment rate provided by Eurostat. Finally, I am relying on the Comparative Manifesto Project data to calculate Dalton’s party polarization index for the general left-right dimension.\(^4\) Table 2 provides descriptive statistics for all variables. There are minor issues with missing data regarding some covariates. This leads to a final sample of 329 observations across 27 countries and 14 years.

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\(^3\) A multi-level approach using the individual-level survey data would be valuable for arguments engaged with cross-level interactions, e.g. heterogeneous effects across educational groups. Yet, my argument does not engage with cross-level interactions. I therefore opt for the less complex country-year design. This also avoids many of the methodological challenges related to multi-level modelling (e.g., random effects specification, selection of level-2 predictors, etc.) and the dichotomous nature of the trust variables.

\(^4\) This information is provided in the Comparative Manifesto Project’s Election Level Data (https://manifesto-project.wzb.eu/datasets/mpelds)
Table 2: Descriptive statistics

<table>
<thead>
<tr>
<th>Statistic</th>
<th>N</th>
<th>Mean</th>
<th>St. Dev.</th>
<th>Min</th>
<th>Pctl(25)</th>
<th>Pctl(75)</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU Differential</td>
<td>378</td>
<td>0.242</td>
<td>0.197</td>
<td>-0.172</td>
<td>0.077</td>
<td>0.377</td>
<td>0.699</td>
</tr>
<tr>
<td>Gini</td>
<td>343</td>
<td>29.569</td>
<td>3.466</td>
<td>23.100</td>
<td>26.100</td>
<td>32.700</td>
<td>35.800</td>
</tr>
<tr>
<td>GDP pc</td>
<td>338</td>
<td>24,947</td>
<td>16,712</td>
<td>2,700</td>
<td>10,850</td>
<td>35,300</td>
<td>91,500</td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td>378</td>
<td>8.980</td>
<td>4.338</td>
<td>2.800</td>
<td>6.025</td>
<td>10.700</td>
<td>27.500</td>
</tr>
<tr>
<td>Polarization</td>
<td>378</td>
<td>1.287</td>
<td>0.531</td>
<td>0.255</td>
<td>0.858</td>
<td>1.639</td>
<td>3.229</td>
</tr>
<tr>
<td>KOF Globalization</td>
<td>351</td>
<td>83.002</td>
<td>4.795</td>
<td>69.106</td>
<td>79.722</td>
<td>87.436</td>
<td>90.975</td>
</tr>
<tr>
<td>NatParl Trust</td>
<td>378</td>
<td>0.357</td>
<td>0.191</td>
<td>0.058</td>
<td>0.190</td>
<td>0.499</td>
<td>0.775</td>
</tr>
<tr>
<td>EP Trust</td>
<td>378</td>
<td>0.599</td>
<td>0.145</td>
<td>0.220</td>
<td>0.501</td>
<td>0.704</td>
<td>0.944</td>
</tr>
</tbody>
</table>

Figure 2 plots the smoothed time trends in the EU regime differential and income inequality variables. The grey areas denote 95 percent confidence intervals. Note that I have standardized the two variables for the plot to create a common scale. We see that the EU regime differential strongly decreases over time. This means that the evaluation of the EU regime worsened in relative terms. This effect appears to go beyond simple noise, as the decrease is significant. The differential drops after 2008, which suggests that this is an effect of the economic and financial crisis. Indeed, previous research has demonstrated that EU regime evaluation has suffered under the crisis (Foster & Frieden 2017). In contrast, the overall trend in income inequality is slightly positive. Across the 27 member states in the data, income inequality continued to grow. This is in line with analyses from earlier periods (Kuhn et al. 2016). However, the overall increase is marginal and does not exceed the confidence levels.
However, Kuhn et al. (2016) have relied on data from the old EU-12 member states. Indeed, Figure A1 in the Appendix shows that inequality increased markedly in the wealthier, Western states. The Central and Eastern states, in turn, did not increase their high level of inequality further. Yet, there is heterogeneity in inequality trends across East and West. Figure A2 in the Appendix plots the trends across all countries. For instance, inequality did increase substantially in Bulgaria, while it decreased in Poland. In the West, we see decreasing inequality in the United Kingdom and rising income inequality in Sweden. Overall, the descriptive analysis suggests that there is substantial temporal variation in inequality.
Finally, a descriptive investigation of the two regime evaluations – national and European parliament trust – does provide insights into the association of the two measures that make up the dependent variable. The overall (pooled) correlation between the two variables is 0.33. The temporal change in national and EP trust is correlated at 0.45. This shows that the two measures move together to a certain degree, but clearly capture two distinct phenomena. This is confirmed by a country-specific plot of the two time series in Figure 3. In a few countries, such as the Cyprus or Greece, the two measures closely move together. In most other cases, the gap between EU and national regime evaluations widens or narrows at some point. In some cases, the trends even cross each other. In Austria, Germany, Denmark, Finland, the Netherlands, Sweden, and the UK, the differential switches signs over the observation period. Note that EP trust is usually above the trust in national parliaments. Hence, low EP trust usually implies low trust in national institutions as well. I call this a country context of low general trust. According to the differential between the two time series in Figure 3, the most Eurosceptic publics are countries with high general trust, such as Austria, Denmark,
Finland, Sweden, or the Netherlands. Here, the small differential results from the highly regarded national institutions. The small and frequently negative differential in the United Kingdom also suggests strong Euroscepticism, but the overall trust level is here much lower.

The following analysis provides a systematic investigation of the temporal variation in the data. To test the effect of inequality on EU regime evaluations, I rely on two-way fixed effects regression. This method provides an analysis of change over time that holds constant all temporally stable confounding factors. Unit fixed effects control for all time-invariant country characteristics. Moreover, time fixed effects account for common shocks, such as the economic and financial crisis in 2008/9. I cluster standard errors over countries to adjust for serial correlation. Moreover, I take the natural logarithm of all variables to ease readability, interpretation, and comparability of the regression coefficients.

**Results**

Table 3 presents results of four two-way fixed effects regressions. Model 1 estimates the effect of income inequality on the EU differential, omitting the control variables. This should demonstrate that an effect is not wrongly introduced by third variables (cf, collider/post-treatment bias). The effect of inequality on the EU regime differential is highly significant and positive. This means that rising inequality improves EU regime evaluations relative to evaluations of the national regime. This finding is in line with hypotheses 1, 3a, and 3b. However, the positive effect stands in contrast to hypothesis 2 and previous findings on the relationship between inequality and EU policy evaluations (Kuhn et al. 2016). This implies that regime and policy evaluations operate to a certain degree independently (de Vries 2018).
Model 2 in Table 3 estimates the EU regime differential with the full set of control variables. The effect of inequality remains positive and significant. The coefficient size decreases, but remains substantive. Note, that this could also be a result of the slightly decreasing sample size. A one percent increase in inequality is associated with a 0.41 percent rise in the EU differential. This is a strong effect if we compare it to the control variables. The most influential control is unemployment. As model 2 shows, a one percent increase in unemployment leads to a meager 0.06 percent increase in the EU differential. Yet, the positive sign on the unemployment coefficient indicates that the impact of macro-economic performance on the EU regime differential follows the same logic as the inequality effect. Worsening national conditions make the EU regime look better in relative terms. The effects of the other control variables do not reach conventional standards of statistical significance. I therefore refrain from an interpretation of the coefficients.
The remaining part of the analysis will differentiate between hypothesis 1, 3a, and 3b to get insights in the mechanisms driving the positive effect of inequality on the EU regime differential. For this, Models 3 and 4 in Table 3 break up the differential into its constituent parts. As the theoretical discussion highlighted, compensation arguments would expect a positive effect of inequality on EU regime evaluations. Model 3 in Table 3 estimates the effect of inequality on EP trust, holding constant national parliament trust as well as the full set of controls. By holding constant national parliament trust, model 3 is a direct test of hypothesis 3b. The Gini coefficient has a positive and significant effect. As H3b expects, worsening domestic conditions in the form of increased inequality lead to higher EU regime support.
However, in contrast to the classical compensation hypothesis, this effect operates independent of changes in national parliament trust. National parliament trust does have a significant and positive effect on EP trust. So, indeed, national institutional trust is closely related to EU trust, even in an analysis of change (cf, Muñoz et al. 2011). Yet, national regime evaluations do not to consume the effect of inequality on EP trust. The findings of model 3 lend support for H3b, while contrasting H3a’s expectation that inequality’s effect on EU trust is mediated by eroding national trust.

In turn, Model 4 in Table 3 demonstrates that inequality strongly depresses national regime evaluations. This is by far the largest effect, as a 1 percent increase in inequality is associated with a 2.4 percent decrease in national parliament trust. This shows that eroding national regime evaluations largely drive the positive effect of inequality on the regime differential. As the adverse consequences of inequality on perceptions of national democracies accumulate, evaluations of the EU’s political procedures improve in relative terms. Model 4 therefore provides strong support for hypothesis 1. Overall, models 3 and 4 closely resemble the benchmark model presented in Figure 1. Under this model, the mechanisms behind hypothesis 1 and 3b operate in parallel. Rising inequality can pull down national regime evaluations or push up support for the EU regime. This leads to a large and positive effect of inequality on the overall EU regime differential.

The control variables provide some further interesting insights. EP trust is positively affected by GDP growth. The effect size, however, is moderate. More importantly, rising globalization appears to decrease trust in the European parliament substantially. Contrarily, globalization does not have a statistically significant effect on national parliament trust. This suggests that domestic publics do attribute globalization effects to the supranational level. Yet, this effect is not strong enough to significantly inform the EU differential. The compensation mechanism
partially offsets negative globalization effects on EU regime support. Finally, we see that unemployment has a significant negative effect on national parliament trust, while unemployment effects are absent for EP trust. This drives the positive effect of unemployment on the EU differential.

Overall, the empirical findings indicate that compensation is driven by adverse domestic conditions, namely rising inequality and, to a lesser extent, unemployment. Yet, in contrast to the classical compensation logic, worsening domestic conditions inform EU trust independently of national regime evaluations. As a result, compensation appears to be caused by an improved perception of the EU’s problem-solving capacity, rather than a detachment from the domestic regime. In addition, inequality’s adverse effects on national regime evaluations do affect the EU differential independently. As a result, inequality has a strong effect on the EU regime differential. This becomes clear if we consider that the size of the inequality effect is more than six times the unemployment effect. As Table 3 demonstrates, this strong effect can be explained by the fact that inequality pulls national and EU regime evaluations in opposite directions.

In line with benchmark theory, the analysis in Table 3 assumes that national and EU regime evaluations are formed simultaneously. Inequality directly affects both evaluations and their net value determines the EU differential. However, national parliament trust could also be regarded a cause of EP trust. This resembles the causal structure implied by hypothesis 3a and the next part of the analysis uses mediation analysis to provide a more direct test for this possibility. H3a suggests a two-step mediation model. In the first step, national parliament trust is depressed by rising inequality. In a second step, the effect of inequality on EP trust runs entirely or to a large extend through national parliament trust. This alternative causal structure is presented on the right side of Figure 1.
For the mediation analysis, I employ the method proposed by Imai et al. (2011) because its simulation-based algorithm identifies average causal mediation effects (ACME) and accounts for estimation uncertainty. The method proceeds in two stages. First, it estimates the effect of inequality (treatment) on national parliament trust (mediator), including the full set of controls. Second, it estimates the effect of inequality and national parliament trust on EP trust; again including the full set of controls. From these two models, the ACME and the average direct effect (ADE) of inequality on EP trust are simulated.5

Table 4: Mediation analysis

<table>
<thead>
<tr>
<th>Estimate</th>
<th>95% CI Lower</th>
<th>95% CI Upper</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACME</td>
<td>-0.3665</td>
<td>-0.8360</td>
<td>0.07</td>
</tr>
<tr>
<td>ADE</td>
<td>1.1905</td>
<td>0.5245</td>
<td>1.83</td>
</tr>
<tr>
<td>Total Effect</td>
<td>0.8239</td>
<td>0.0957</td>
<td>1.58</td>
</tr>
<tr>
<td>Prop. Mediated</td>
<td>-0.4226</td>
<td>-3.7088</td>
<td>0.15</td>
</tr>
</tbody>
</table>

Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1
ACME=average causal mediation effect; ADE=average direct effect
Based on 500 simulations

Table 4 presents the results of the mediation analysis. Statistically, the ACME cannot be distinguished from zero. This demonstrates that changes in national parliament trust do not mediate the effect of rising inequality on EP trust. Moreover, the ADE is very similar to the inequality coefficient in Model 3 of Table 3 and highly significant. The presence of a robust direct effect and the absence of a substantial mediation relationship is in line with the modelling strategy presented in Table 3. Inequality has a strong, positive, and direct effect on EP trust. Therefore, the mediation analysis does not support the relationship implied by H3a.

5 More formally the ACME is the differences in the outcome if we estimate our dependent variable with the mediator (1) under the condition of having estimated our mediator with the independent variable of interest and (2) under the condition of omitting our independent variable of interest from the estimation of the mediator (IMAI et al. 2011).
The mediation analysis provides additional support for the finding that the mechanisms behind H1 and H3b coexist. The descriptive statistics already suggested that temporal change in national regime evaluations frequently deviate from changes in EU evaluations. The statistical analysis in Tables 3 and 4 support this finding using more stringent statistical tests. However, the coexistence of the two mechanisms raises questions on the country specific contexts that determine whether decreasing national parliament trust and/or increasing EU trust drive the regime differential. The final part of the analysis will shed light on this puzzle.

Most likely, the degree of change in the EU differential depends on pre-existing levels of national and European parliament trust. Publics more strongly update the EU differential if initial levels of national trust were high and previous levels of EP trust were low. On the one hand, there is a technical explanation for this. Floor and ceiling effects could limit the extent to which the regime differential can adjust. For instance, if national institutions are already distrusted and the EP is held in highest regards, any potential for a more positive EU differential is marginal. On the other hand, a more substantial explanation suggests that rising inequality is not equally relevant for public opinion in all contexts. For example, increased income divides do not provide a lot of new information in contexts of low national institutional trust. Here, public believes on national institutions do not require updating as evaluations are already in line with the negative effects of inequality. As a result, a country’s initial level of regime support could strongly moderate the effect of changes in inequality on the EU differential. As I demonstrate in the following, this source of effect heterogeneity can explain the coexistence of the two mechanisms identified above.

I therefore test for a moderation effect of lagged national and EU parliament trust. Table A1 in the Appendix presents the complete regression results and Figure 4 plots the estimated interaction terms. The left plot shows the interaction effect between inequality and lagged
national parliament trust. The positive effect of inequality on the EU regime differential is much more pronounced in states with initially high levels of national parliament trust. Publics with a 50 percent trust in the national parliament shift much more trust to the EU as inequality increases. These typically are the more Eurosceptic states, in which we observe a small distance between national and EU parliament trust (=small EU differential). Their Euroscepticism mainly results from relatively high trust in national institutions.\(^6\) The left plot of Figure 4 shows that these Eurosceptic publics appear to improve their EU regime evaluation as domestic inequality rises. This fits well the predictions of H1. The quality of the highly regarded national institutions is challenged by rising inequality, which makes national regime evaluations erode the most in these contexts. Here, the updating of public believes about the regime differential is most pronounced. Rising inequality provides a lot of new information on the quality of these highly regarded national democracies, but citizens do not appear to extrapolate the adverse effects of inequality to the European system. Rather, EU regime evaluations remain on their high level as inequality incrementally depresses national evaluations.

The plot on the right of Figure 4 shows the interaction between inequality and lagged EP trust. This provides insights on the country contexts in which the mechanism behind H3b is at work. It shows that the inequality effect is also more pronounced in states with initially low levels of EP trust. This is a separate mechanism, as relatively low EP trust does not directly imply strong Euroscepticism. Rather, low EP trust observations are cases with generally low trust levels (national and European) and a sizeable EU differential (rather pro-European). Across all countries and most observation periods, EP trust is usually above trust in national institutions

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\(^6\) Note that EP trust in these cases is frequently on a similarly high level. The major contextual difference is that the most Eurosceptic publics have exceptionally high national institutional trust, which results in a very small differential.
Observations of relatively low EP trust come from the post-2008 years in Eurocrisis bailout countries (e.g., Greece, Cyprus, Spain, Ireland, and Portugal). These are countries with pro-European publics (sizeable EU regime differential, even over the crisis years), but comparatively low national and supranational institutional trust levels (again, compare Figure 3). As Figure 3 shows, the Czech Republic and Slovenia also show periods of low general trust, but a sizeable EU differential. The interaction plot on the right of Figure 4 demonstrates that publics with initially low levels of EP trust turn to the EU as inequality rises. This makes sense considering H3b. These rather pro-European publics face very low national trust levels. Rising inequality does not provide a lot of new information on the highly distrusted national regime. However, as inequality increases, these publics more strongly direct hopes for problem solving to the supranational level.

To conclude, the interaction terms show that the dynamics behind H1 and H3b are reflected in two distinct national contexts. Contexts of initially high trust in national parliament amplify the effect of inequality. Rising inequality challenges the highly regarded national institutions. Evaluations of the national regime erode; pushing the national evaluations below the more stable EP evaluations (see for instance Denmark in Figure 3). As model 4 of Table 3 shows, this mechanism is the main driver of changes in the EU regime differential. However, there is much less scope for this mechanism in contexts of low national parliament trust, such as Bulgaria or Slovenia. Here, national parliament trust can be below 15 percent. In these contexts, publics are generally pro-European (sizeable differential), but show comparatively low national and European regime support. Rising inequality does not induce new information on the poorly performing national regime, but increased problem pressure continues to increase the EU regime evaluation. As inequality increases, publics sustain their low esteem for national institutions and more strongly re-direct hope for problem solving to the supranational level.
Robustness Checks

I conducted several robustness checks for the main analysis presented in Table 3. I have rerun Models 3 and 4 of Table 3 without the respective trust measure as predictor. On the one hand, national parliament trust might mediate part of the effects of inequality on EP trust (cf, mediation analysis). This could hide the true effect size and bias the coefficient on inequality downwards. On the other hand, Model 4 could suffer from collider bias, as EP trust might be jointly caused by national parliament trust and inequality. Table A2 presents the results without the trust variables as predictors. The positive effect of inequality on EP trust remains highly robust. The negative effect of inequality on national parliament trust stays negative and strong. Here, the significance level just misses the 5 percent threshold. Overall, the substantive conclusions we draw from Table A2 are the same to Table 3. Note that removing the trust measures provides a clearer picture on the effect of globalization. Globalization decreases national and EP trust rather symmetrically. This explains why globalization does not inform the EU differential.
Moreover, I have controlled for an alternative measure of political polarization. Instead of the ideological left-right scale, I have used the Manifesto Project’s pro-/anti-EU scale to calculate partisan polarization on European integration. Running the regressions with this alternative measure, I find that EU polarization is insignificant across all models. Moreover, the coefficient estimates are substantively the same.

**Conclusion**

Over the past decades, EU member states experienced different trends in income inequality. Yet, we so far lacked insights on how inequality trends relates to regime evaluations across the EU’s multilevel governance system. This paper demonstrates that rising inequality improves the EU regime differential. Due to the adverse effects of inequality on national democracies, national regime evaluations erode strongly. This shifts the EU differential in favor of the European Union. Additionally, a more moderate compensation mechanism explains why negative outcomes on the national level further boost trust in EU institutions. Mediation and moderation analyses reveal that eroding national institutions and compensation are two independent sources of an increasing EU differential. Moreover, the two mechanisms push the EU regime differential in the same direction, which makes inequality a strong determinant of temporal changes in EU regime support.

These findings show that EU regime evaluations benefit in contexts of rising inequalities. As such, a national democracy’s curse can be the EU’s blessing. However, this does not mean that income inequality is a sustainable source of EU regime support. The EU differential can also improve if perceptions of the national regime are just eroding more than the EU evaluations. Overall, this still makes both governance levels lose support in absolute terms. Moreover, it has been shown that other dimension of EU support suffer under rising inequality (Kuhn et al.)
What my findings show is that the consequences of inequality for citizens’ evaluations of Europe’s multi-level democracy are mainly restricted to the domestic level. As EU member states keep the main responsibility for social and redistributive policies, national democracies merely get what they deserve. Moreover, the empirical analysis suggests that citizens do punish the EU regime for larger processes of globalization, which is more in line with previous findings on EU policy evaluations (Kuhn et al. 2016). However, negative globalization effects are partially offset by a compensation mechanism that makes people redirect their hopes to the EU regime as national outcomes worsen, especially in contexts of low trust on national institutions.

Theoretically, this paper uncovers an important ambiguity in the compensation hypothesis. One version of the compensation logic expects that national regime evaluations mediate the positive effect of adverse national conditions on EU trust. Another account suggests that adverse national outcomes can increase the demand for supranational governance without necessarily eroding national regime evaluations. The empirical analysis found support for the latter. In contexts with generally low trust in national and EU institutions, rising inequality leads to an improved evaluation of the EU regime. In such a setting, publics maintain their critical stance towards national institutions and increase hopes for supranational problem solving. This raises interesting questions for future research. Certain domestic conditions tend to reflect differently on the member states and the EU. However, it largely remains unclear to which type of domestic outcomes this holds true and to which not. A fruitful avenue for future research would be to systematically investigate which types of national social and political outcomes are attributed to the EU or the national system.

Empirically, this paper contributes to existing research by analyzing temporal variation. So far, empirical tests for the compensation hypothesis have frequently relied on large between-
country differences. This paper shows that we also find compensation effects in a within-country analysis. The present study further provides a more detailed account of the mechanisms behind the compensation logic. Finally, this analysis extend the existing literature on EU trust by jointly considering changes in national and EU regime evaluations and highlighting the large effect of inequality trends. Of course, further research is required to develop more comprehensive models of the temporal variation in the EU regime differential. Finally, future research could more systematically integrate explanations of changes in EU policy and regime differentials and could be extended to analyses of individual level effect heterogeneity.
References


Appendix

Table A1: Fixed effects regression of EU regime differential, conditioning on lagged values of regime evaluations

<table>
<thead>
<tr>
<th></th>
<th>Log EU Diff (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Gini</td>
<td>0.492**</td>
</tr>
<tr>
<td></td>
<td>(0.202)</td>
</tr>
<tr>
<td>Lag Trust NatParl</td>
<td>-3.346***</td>
</tr>
<tr>
<td></td>
<td>(1.227)</td>
</tr>
<tr>
<td>Lag Trust EP</td>
<td>3.362***</td>
</tr>
<tr>
<td></td>
<td>(0.986)</td>
</tr>
<tr>
<td>Log GDP</td>
<td>0.008</td>
</tr>
<tr>
<td></td>
<td>(0.040)</td>
</tr>
<tr>
<td>Log Polarization</td>
<td>0.005</td>
</tr>
<tr>
<td></td>
<td>(0.009)</td>
</tr>
<tr>
<td>Log Unemployment</td>
<td>0.050***</td>
</tr>
<tr>
<td></td>
<td>(0.014)</td>
</tr>
<tr>
<td>Log Globalization</td>
<td>-0.314</td>
</tr>
<tr>
<td></td>
<td>(0.252)</td>
</tr>
<tr>
<td>Log Gini * Lag Trust NatParl</td>
<td>0.918**</td>
</tr>
<tr>
<td></td>
<td>(0.366)</td>
</tr>
<tr>
<td>Log Gini * Lag Trust EP</td>
<td>-0.892***</td>
</tr>
<tr>
<td></td>
<td>(0.293)</td>
</tr>
<tr>
<td>Twoway Fixed Effects</td>
<td>Yes</td>
</tr>
<tr>
<td>N</td>
<td>303</td>
</tr>
</tbody>
</table>

Notes: ***p < .01; **p < .05; *p < .1

Country clustered standard errors displayed
Table A2: Replication of models 3 and 4, excluding trust as predictor

<table>
<thead>
<tr>
<th></th>
<th>EP Trust (1)</th>
<th>NatParl Trust (2)</th>
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</thead>
<tbody>
<tr>
<td>Log Gini</td>
<td>0.848**</td>
<td>-1.309*</td>
</tr>
<tr>
<td></td>
<td>(0.336)</td>
<td>(0.714)</td>
</tr>
<tr>
<td>Log GDP</td>
<td>0.431***</td>
<td>0.289</td>
</tr>
<tr>
<td></td>
<td>(0.085)</td>
<td>(0.192)</td>
</tr>
<tr>
<td>Log Polarization</td>
<td>-0.007</td>
<td>0.005</td>
</tr>
<tr>
<td></td>
<td>(0.020)</td>
<td>(0.048)</td>
</tr>
<tr>
<td>Log Unemployment</td>
<td>-0.126***</td>
<td>-0.596***</td>
</tr>
<tr>
<td></td>
<td>(0.032)</td>
<td>(0.068)</td>
</tr>
<tr>
<td>Log Globalization</td>
<td>-1.987***</td>
<td>-2.342*</td>
</tr>
<tr>
<td></td>
<td>(0.642)</td>
<td>(1.220)</td>
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<td>Twoway Fixed Effects</td>
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<tr>
<td>N</td>
<td>329</td>
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</tbody>
</table>

Notes: ***p < .01; **p < .05; *p < .1
Country clustered standard errors displayed
Figure A1: Trends in inequality over East and West

Figure A2: Trends in inequality over countries