An ever wider gap in an ever closer union: Rising inequalities and euroscepticism in 12 West European democracies, 1975–2009

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Abstract
This article asks whether the trend towards greater inequality in European countries has led to an increase in euroscepticism. Traditionally amongst the most equal societies, West European countries have recently witnessed a stark increase in income inequality. European integration is often presented as one of the main driving factors of this development. This raises the question whether Europeans blame the EU for the widening gap between the rich and the poor, and consequently develop eurosceptic attitudes. A multilevel analysis of 79 pooled Eurobarometer survey waves across 12 countries from 1975 to 2009 confirms that increasing income inequality boosts euroscepticism especially amongst the low educated. The findings are consistent with previous research on the link between income inequality and democratic legitimacy. They also provide empirical support for a new educational divide in the wake of European integration and globalisation, and deepen our knowledge on the predictors of EU support.

Key words: economic integration, education, Europe, inequality, internationalization, sociology

JEL Classifications: D31 (personal income, wealth and their distributions), D72 (legislatures and voting behavior), F6 (globalization)

1. Introduction
It is widely acknowledged that excessive social inequality challenges the legitimacy of democratic institutions. Not only does it clash with important principles of democratic representation and fairness (Dahl, 1971; Bartels, 2008), it also lowers citizens’ willingness to take part in political (Goodin and Dryzek, 1980; Solt, 2008, 2010; Scervini and Segatti, 2012) and social life (Uslaner and Brown, 2005; Lancee and Van de Werfhorst, 2012) and negatively affects
their attitudes towards political institutions (Beramendi and Anderson, 2008b; Andersen, 2012).

Whilst the link between inequality and democratic legitimacy of nation-states has received widespread attention in the literature (Verba et al., 1978; Anderson and Singer, 2008; Beramendi and Anderson, 2008a; Solt, 2008, 2010), we know little about how inequality affects public support for European integration. This is surprising because European integration is often presented as one of the driving factors of increasing inequalities in European domestic societies (Beckfield, 2006, 2009). European economic and political integration is said to have curtailed member-states’ macroeconomic sovereignty (Eichenberg and Dalton, 2007), weakened the welfare state (Bartolini, 2005; Ferrera, 2005; Scharpf, 2010) and led to increased labour market competition and pressures for flexibilisation (Beckfield, 2009). In the wake of these and more global processes of integration, national societies have become less equal, and Europeans are more directly exposed to social risks such as unemployment or poverty (Mills and Blossfeld, 2005; Beckfield, 2006). Whilst some scholars have contested the claim that processes of European integration have led to welfare state retrenchment (Bolukbasi, 2009; Verdun, 2010), the purpose of this article is not to contribute to this discussion per se but to assess whether European citizens respond to increased inequalities in their domestic societies by blaming European integration for the widening gap between the rich and the poor in their country and by consequently developing eurosceptic attitudes (Heidenreich and Wunder, 2008; Burgoon, 2013).

People are sensitive to economic inequalities (Wilkinson and Picket, 2009; Sachweh, 2012), especially in West European democracies where strong welfare states have contributed to social consensus by mitigating economic differences across society (Alesina et al., 2004). Moreover, utilitarian cost-benefit calculations have been shown to influence EU support (Eichenberg and Dalton, 1993; Anderson and Reichert, 1995; Gabel, 1998). Whilst these calculations originally referred to a country’s macroeconomic performance including growth, unemployment rates, inflation and intra-European trade, Eichenberg and Dalton (2007) argue that in the wake of the Economic and Monetary Union, redistributive concerns might take centre stage.

Scholars have argued that people with low levels of formal education are particularly sensitive to insecurity caused by recent developments in post-industrial societies, such as increased levels of international competition and welfare state retrenchment (Swank and Betz, 2003; Kriesi et al., 2008). Therefore, it comes as no surprise that people with lower levels of education tend to be more eurosceptic than people with higher levels of education (Hakhverdian et al., 2013). In this article, we expect the lower educated to also be more sensitive to economic inequalities when evaluating the European Union, and we demonstrate empirically that this is indeed the case. Thus, the aim of this article is to investigate whether greater inequality in European domestic societies has led to an increase in euroscepticism and whether this holds in particular for the least educated Europeans. To do so, we analyse data of 79 pooled Eurobarometer survey waves across 12 West European countries from 1975 until 2009.

The contribution of this article is threefold. First, this article deepens our knowledge on how income inequality is linked to the democratic legitimacy of a political system by shaping citizens’ dispositions towards political institutions. Second, by showing that rising economic inequality is linked to increased euroscepticism especially amongst the low educated, the article provides empirical support for the rise of a new educational divide on
socio-cultural issues in the wake of European integration and globalisation (Kriesi et al., 2008). Third, the article sheds further light on the explanatory factors of euroscepticism amongst the European public. Although we do not challenge the importance of collective identities in shaping attitudes towards European integration (Hooghe and Marks, 2004; Luedtke, 2005; McLaren, 2006, 2007), we suggest that eurosceptic attitudes are also partly motivated by redistributive concerns (Eichenberg and Dalton, 2007; Beaudonnet, 2011).

The article is structured as follows. In the next section, we discuss how European integration is thought to have contributed to rising inequalities in Europe. We then elaborate on the link between economic inequality and democratic legitimacy and formulate the hypotheses guiding this article. Next, we present the data and methods employed to test our hypotheses before turning to the empirical analysis. Finally, conclusions and implications for further research are discussed.

2. Increased inequality in the face of European integration

Compared to other regions of the world, West European societies are typically characterised by low levels of economic inequality (Deininger and Squire, 1996). However, the gap between the rich and the poor has widened considerably in many of these countries (Brandolini and Smeeding, 2008; Hoffmeister, 2009; Emmenegger et al., 2011, Huber and Stephens, 2014; Nolan et al., 2014). Two landmark OECD reports (OECD, 2008, 2011)—titled Growing Unequal and Divided We Stand—have drawn attention to the fact that income inequality has been rising over the past decades in most OECD countries. Using data from the Luxembourg Income Study (LIS) for 18 post-industrial countries starting in 1985, Huber and Stephens (2014) find that both pre- and post-tax and transfer inequality has increased in all welfare state regime types since the mid-1980s. Whilst the changes were most pronounced in the Anglo-American countries, inequality increased remarkably in the Nordic countries and to a lesser extent in the Continental and Southern European countries (Huber and Stephens, 2014). Tóth (2014) reports a similar pattern: whereas most of the 30 rich countries analysed in his study experienced significant increases in income inequality, as measured by the Gini index, the starkest increase amongst the 15 ‘old’ EU member states was found in Sweden. However, the Nordic countries seem to be mainly catching up with the rest of Europe. Equally, Hoffmeister (2009) observes a noticeable convergence in income inequality trends in Western Europe as a result of increasing inequality in Scandinavian countries and a decrease in Mediterranean countries, at least leading up to the Great Recession. Moreover, whilst between-country inequality has decreased (Beckfield, 2009), personal inequality of income in the EU-25 was found to be ‘similarly high to that of the Member States with the most unequal distribution of income: Estonia, the United Kingdom, and the Mediterranean countries of the EU-15’ (Hoffmeister, 2009, p. 120). More important for the purpose of this article, Europeans still use the national community as a reference frame for assessing their own position on the income distribution rather than seeing themselves as part of a European stratification system (Heidenreich and Wunder, 2008; Whelan and Maître, 2009). When linking economic inequality to EU support, one should thus consider within-country differences rather than between-country or total income differences across Europe.

Several potential explanations for increasing inequality have been presented (IMF, 2007; OECD, 2011). Huber and Stephens (2014) find the prevalence of single-mother households, union density, deindustrialisation, unemployment, employment levels and educational
spending to be the most important predictors of market income inequality. Another potential cause refers to globalisation and—in the European context—European integration. This aspect has a lot of political leverage as ‘protectionist sentiments have been fuelled by the observation that the benefits of productivity gains in the past two decades accrued mainly—in some cases, exclusively—to highly skilled, highly educated workers’ (OECD, 2011, p. 24). In contrast, empirical evidence on the relationship between globalisation and income inequality is mixed (OECD, 2011). Whilst some studies find a positive relationship between globalisation and inequality in both high- and low-wage countries (Milanovic and Squire, 2005; Dreher and Gaston, 2008; Bergh and Nilsson, 2010), others find a negative relationship in high-wage countries (Jaumotte et al., 2008).

This issue is further complicated in the context of the European Union, where it is difficult to disentangle global and European drivers of internationalisation. European policy makers tend to present European integration as a shield against the polarising effects of globalisation. At the same time, the EU is often used as a scapegoat for unpopular decisions and developments (Hay and Rosamond, 2002). In the case of France for instance, Meunier (2004, p. 129) argues that ‘Europeanization, more than globalization, is often blamed [. . .] in the discourse of politicians who claim that their hands are tied by “Brussels” and by their European commitments’. Scholars have argued that much of what is commonly imputed to global market integration is actually a consequence of the European integration process (Fligstein and Mérand, 2002). Moreover, theoretical considerations and empirical evidence suggest that European integration is a source of economic inequality rather than a buffer against it (Boje et al., 1999; Beckfield, 2006, 2009). For our argument it is less relevant whether the economic policies of the EU indeed contribute to increasing inequality and whether these policies undermine the (nationally based) welfare states and thus contribute to economic uncertainty, particularly for the lower educated citizens. What matters is that this claim is often made not only by scholars but particularly in the public debate (Meunier, 2004). If there is increasing inequality, and if people think that this is partially due to EU policies, they can be expected to blame the EU and become (more) eurosceptic as a result (Burgoon, 2013).

3. Inequality and political support

The distribution of wealth in a society and the legitimacy of its political institutions have long been thought to be linked. In normative terms, excessive inequality is at odds with democratic principles of fair and equal representation (Dahl, 1971). Especially in Western Europe, citizens expect their governments to mitigate economic inequalities by implementing redistributive policies (Alesina et al., 2004; Kalenthaler et al., 2008). Assuming that citizens base their political support—amongst other things—on the performance and outputs of political institutions (Easton, 1975), a political system that fails to produce satisfying outputs is likely to receive low support. In line with this argument, Anderson and Singer (2008) find in an analysis of survey data from 20 Western democracies that a country’s level of income inequality is negatively associated with its citizens’ attitudes towards public institutions. Analysing World Values Survey data, Andersen (2012) finds that income inequality dampens support for democracy especially amongst low-income individuals.

In light of these considerations, we hypothesise that Europeans partly blame the EU for growing inequalities in domestic societies and consequently develop eurosceptic attitudes. To be sure, the widening gap between the rich and the poor has also been attributed to
globalisation and modernisation, and policies of national governments still influence the distributions of incomes amongst citizens. However, the effects of globalisation, modernisation, and European integration are often confounded, and when citizens are discontented with (growing) inequalities, the EU is a very concrete and visible target. National politicians might also contribute to this. Solt (2011, p. 821) highlights the role of ‘diversionary nationalism’ that helps tying nations together that drift apart economically: ‘when economic inequality in a country is greater, the state might try to generate more nationalism among its citizens so as to divert their attention from their diverging conditions’. This nationalism might also turn against the EU. In an analysis of political party platforms in advanced industrial economies from 1960 until 2008, Burgoon (2013) finds that income inequality triggers a backlash against European integration and globalisation amongst political parties. Considering that Europeans strongly rely on party cues when assessing European integration (Steenbergen et al., 2007; Hobolt, 2009), these negative party positions are likely to translate into public euroscepticism. Moreover, the concern about a neoliberal policy agenda in European governance has contributed to the negative referendum outcome on the constitutional treaty in France (Cautrès, 2005; Beckert, 2007) and to the turmoil surrounding the Bolkestein directive (Crespy, 2010). In line with this argument, Eichenberg and Dalton (2007) found citizens of countries with higher welfare state expenditure to be more opposed towards EU authority in this policy domain than were citizens of small welfare states. Equally, Beaudonnet (2011) observed a negative relationship between welfare state efficacy and EU support: Public support for European integration is lower in countries with higher efficacy in reducing poverty risks. These findings suggest that citizens of member states with strong welfare states fear that European integration may weaken their own welfare systems. However, we know little about the direct link between increasing income inequality and eurosceptic attitudes. We therefore formulate the following hypothesis:

\[ H1: \] Rising levels of income inequality lead to an increase in euroscepticism.

Rising inequalities do not have the same impact on all members of society. It is therefore unlikely that everyone reacts to rising inequality in the same way. There are good reasons to expect that especially the low educated react negatively to the widening gap between rich and poor (Scervini and Segatti, 2012). First, increased inequality inherently produces groups of ‘winners’ and ‘losers’. Various scholars have argued that whether people are winners or losers in post-industrial societies is increasingly determined by their levels of formal education. This argument is often based on the factor price convergence model in economic trade theory: International trade is expected to lead to a relative convergence of wages across countries, thus hurting lower skilled workers in high-wage countries (Williamson, 1997). Kalmijn and Kraaykamp (2007, p. 548) speak of the ‘emergence of knowledge and cognitive skills as a resource in the stratification system’. Koehn and Rosenau (2002) also emphasise the importance of formal education as an avenue to acquire the skills and knowledge necessary to perform and compete in a globalised society. Europeans seem to be aware of these differential chances on the job market. Analysing cross-sectional data from the fourth European Social Survey wave, Mau and colleagues find that people in low-skilled jobs feel significantly more insecure (Mau et al., 2012). This subjective insecurity is largely matched by objective insecurity: Swank and Betz (2003, p. 220) argue that ‘trade, capital mobility and immigration of workers may contribute to the decline in the relative wages and employment of increasing numbers of low-skilled workers’. In Western Europe, the most important source
of international trade, mobility and immigration is European integration. Therefore, we may expect that the losers of this process—people with low levels of formal education—react more negatively to this development than do the winners.

Second, formal education not only provides skills and certificates, it also constitutes an important venue of socialisation. Research has consistently shown that with higher levels of education, people develop a more liberal and ‘international’ worldview (Weakliem, 2002; Lachat and Dolezal, 2008). The longer people stay in education, the more they support free trade (Scheve and Slaughter, 2001; Margalit, 2012) and European integration and the less they subscribe to chauvinism and ethnic exclusionism (Coenders and Scheepers, 2003). One explanation for this relationship relies on the socialising force of education. At school and in university, students are exposed to cosmopolitan values and knowledge about other cultures (Hainmueller and Hiscox, 2006). In higher education, they are surrounded by individuals with similar ideas, who—once on the job market—will be equally endowed with skills and certificates. This all breeds a culture of internationalist and liberal values. In contrast, people leaving school at an earlier age are not exposed to these values, and their peers are likely to be less optimistic about how globalisation and European integration affect their future job options. This stratification is likely to be more pronounced in more unequal societies. With rising inequality, the distances between different groups of people widen (Wilkinson and Picket, 2009), leaving fewer opportunities to interact across groups. Therefore, these socialisation processes at school happen in greater isolation than in more equal societies. Educational outcomes are thus likely to have a greater stratifying force on attitudes the higher the level of inequality.

A third reason to expect low-educated people to be especially sensitive to inequality concerns political efficacy. According to Schattschneider (1975), economic inequality leads to policy outputs that are biased towards the wealthy and the better educated, as they have the most opportunities to influence political decision making. This bias is expected to depress political participation amongst all members of society. In fact, empirical evidence suggests that social inequality depresses citizens’ social and civic (Uslaner and Brown, 2005; Lancee and Van de Werfhorst, 2012) as well as political participation (Goodin and Dryzek, 1980; Solt, 2008, 2010; Scervini and Segatti, 2012; Schneider and Makszin, 2014). According to the Schattschneider model, however, the most affluent refrain from participating because their interests are represented anyways, whilst the political apathy of the lower classes is due to their limited ability to influence the political decision-making process (Schattschneider, 1975; Solt, 2010). In contrast to the better educated, the least educated are likely to become dissatisfied with both policy outcomes and their underprivileged position in the political process. Scervini and Segatti (2012) provide empirical support for this hypothesis by showing that income inequality in Italian regions decreases the likelihood to turn out to vote especially amongst the lower educated. In a similar vein, Schneider and Makszin (2014) find that certain welfare state provisions can mitigate this participation gap by more evenly allocating resources across society.

In sum, the widening income gap should therefore lead to increased euroscepticism especially amongst the least educated.\footnote{Theoretically, we expect the same moderating effect for income levels as for levels of education. Alesina et al. (2004) show that high levels of inequality strongly decrease life satisfaction amongst the poor. Kaltenthaler et al. (2008) find that people with lower income are significantly more supportive} Not only does increased inequality weaken their economic
position, it might also lead to unfavourable policy outcomes and decrease their feeling of political efficacy (Schattschneider, 1975). Our second hypothesis therefore reads as follows:

\[ H2: \] The effect of income inequality on euroscepticism is stronger amongst the low educated than amongst the better educated.

In other words, on the basis of H1 we expect a positive main effect of income inequality on euroscepticism. On the basis of H2 we expect a negative interaction effect of income inequality and respondents’ educational attainment on euroscepticism.

4. Data and methods

4.1 Data set

The effect of rising income inequality on attitudes towards the EU is preferably assessed over time. Where a static cross-national comparison only shows whether high levels of inequality coincide with high levels of euroscepticism at one point in time, a dynamic, longitudinal analysis is a more powerful tool to test our causal hypothesis, as it allows us to assess whether a change in inequality leads to a change in euroscepticism.

The Mannheim Eurobarometer Trend File 1970–2002 (Schmitt and Scholz, 2005), merged with 18 more recent Eurobarometer (EB) waves until 2009\(^3\) enables such a longitudinal analysis. We analyse 79 EB waves over 35 years, from 1975 to 2009. For this time span, a consistent measure of euroscepticism is available. We have a sufficiently long time series to study dynamic effects of income inequality on Eurosceptic attitudes for 12 member states: France, Belgium, the Netherlands, Germany, Italy, Luxembourg, Denmark, Ireland, Great Britain, Greece, Spain and Portugal. The measured time span is shorter for Greece, Spain and Portugal, as the EB only included them on their entry into the European Economic Community (EEC), and for France and Luxembourg because of data availability of macro-level variables. Table 1 presents these countries along with sample size and longitudinal coverage.

4.2 Dependent variable

We measure euroscepticism using respondents’ opinion on their country’s membership of the EU. Lubbers and Scheepers (2005) label this type of euroscepticism ‘instrumental euroscepticism’ and distinguish it from ‘political euroscepticism’, which refers to whether policy competencies should be transferred to the supra-national level. The original EB item has three answer categories (‘good’, ‘bad’, and ‘neither good nor

of measures to eliminate inequality. Andersen (2012) shows that income inequality decreases support for democracy first and foremost amongst lower educated individuals. Unfortunately, however, the surveys used in our analyses do not allow us to account for income differences, so we refrain from formulating this hypothesis.

\(^2\) In a somewhat different argument, Wren and Rehm (2014) contend that international exposure has especially increased amongst the highly educated whilst many low-skilled workers are employed in sectors that are sheltered from international competition. Contrary to conventional wisdom, they find that amongst the highly skilled, those who are more exposed to international competition are less in favour of welfare state provision than their counterparts in sheltered sectors.

\(^3\) EB waves 58.1, 59.1, 60.1, 61.0, 62.0, 62.2, 63.4, 64.2, 65.1, 65.2, 66.1, 67.2, 68.1, 69.2, 70.1, 71.1, 71.3, 72.5. Data are freely available at http://zacat.gesis.org/. Accessed on 11 November, 2014.
We combine the neutral and negative answer options to obtain a more equally distributed dependent variable. On the resulting dichotomous variable, a score of 0 represents a positive attitude towards EU membership, whereas a score of 1 stands for negative and neutral attitudes. The proportion of eurosceptics measured in this fashion ranges from 0.21 in the Netherlands to 0.60 in the United Kingdom on average across all years. More relevant to our purposes, there is tremendous within-country variation in eurosceptic attitudes over time. In Italy, for instance, euroscepticism has nearly tripled from the early 1970s to 2010. Of course, not all countries experience a similar upward trend in euroscepticism, nor are movements in public opinion towards the EU necessarily linear in nature. In fact, the Treaty of Maastricht is often described as a breaking point in this regard with negative feelings towards European integration soaring in the wake of its signing (Eichenberg and Dalton, 2007; Hakhverdian et al., 2013).

4.3 Independent variable
Income inequality is measured by the Gini coefficient of final disposable income inequality for each country and year, available from the Standardized World Income Inequality Database (SWIID) (Solt, 2009). We refer to disposable (i.e., after-tax) income inequality,

4 The question on EU membership is formulated as follows: ‘Generally speaking, do you think that (your country’s) membership of the European Union is . . .?’ with the answer options ‘good’, ‘neither good nor bad’, and ‘bad’.

5 To assess whether this dichotomisation influences our results, we ran all analyses with an alternative dichotomisation of positive and neutral versus negative responses. The results are largely the same and are available on request.

6 The SWIID was designed to maximise comparability of income inequality data over time and space. The Luxembourg Income Study (LIS) provides the baseline inequality estimates ‘as the quality and comparability of these data are unparalleled’ (Solt, 2009, p. 235). The main shortcoming of the LIS lies in the paucity of available country-years. The SWIID therefore imputes missing country-years using income inequality measures from a host of other sources that have been combined in the World Income Inequality Database (UNU-WIDER, 2008). The resulting estimates are unrivalled in terms of longitudinal and cross-national comparability and therefore ideal for our purposes. The

<table>
<thead>
<tr>
<th>Country</th>
<th>N</th>
<th>Years</th>
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<tbody>
<tr>
<td>France</td>
<td>68 630</td>
<td>1976–2009</td>
</tr>
<tr>
<td>Belgium</td>
<td>67 984</td>
<td>1975–2009</td>
</tr>
<tr>
<td>Netherlands</td>
<td>70 463</td>
<td>1975–2009</td>
</tr>
<tr>
<td>Germany</td>
<td>106 187</td>
<td>1975–2009</td>
</tr>
<tr>
<td>Italy</td>
<td>69 341</td>
<td>1975–2009</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>26 959</td>
<td>1981–2009</td>
</tr>
<tr>
<td>Denmark</td>
<td>70 320</td>
<td>1975–2009</td>
</tr>
<tr>
<td>Ireland</td>
<td>63 472</td>
<td>1977–2009</td>
</tr>
<tr>
<td>Great Britain</td>
<td>70 131</td>
<td>1975–2009</td>
</tr>
<tr>
<td>Greece</td>
<td>56 264</td>
<td>1982–2009</td>
</tr>
<tr>
<td>Spain</td>
<td>47 537</td>
<td>1985–2009</td>
</tr>
<tr>
<td>Portugal</td>
<td>46 695</td>
<td>1985–2009</td>
</tr>
<tr>
<td>Total</td>
<td>763 983</td>
<td></td>
</tr>
</tbody>
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bad’).
as people might be more sensitive to what they receive after taxes than before. The Gini coefficient has a value of 0 in a perfectly equal society where everyone has exactly equal income, and a value of 100 in a perfectly unequal society where one person possesses all the income and all other persons possess nothing. In our sample, the average Gini coefficient for the time period under investigation varies from a low of 24.0 in Denmark to a high of 34.3 in Portugal.

Figure 1 displays euroscepticism and income inequality for all 12 countries pooled in our sample. Notwithstanding trends in individual countries, we see that euroscepticism on the whole rises during the 1970s to peak around 1980. A sharp decline in euroscepticism ensues during the 1980s, but euroscepticism is clearly on the rise once more in the wake of the Maastricht Treaty. As we explain in further detail shortly, our models analyse the impact of changes in inequality, rather than its absolute level, on euroscepticism.

We measure educational attainment according to the age at which respondents finished full-time education, which is the only consistently available measure of education with sufficient spatial and longitudinal coverage. We also repeated the analyses where we recoded education into three categories: having left education at age 15 or younger, age 16 to 19, and 20 or older. Findings confirmed the analyses presented here.

4.4 Control variables
Changes in inequality are likely to be correlated with other macro-level changes that affect euroscepticism. If we fail to control for these, our estimates could be biased or even completely spurious. Changes in aggregate levels of actual European integration might give rise to changes in Gini (as argued by eurosceptics) and these may also lead to euroscepticism (e.g., Franklin and Wlezien, 1997). However, whilst we would want to control for levels of European integration, the most comprehensive measure thereof (König and Ohr, 2013) is not available for the timeframe that we study. As a proxy, we control for changes in the KOF index of globalisation (Dreher et al., 2008). This index measures the level of economic, political and social globalisation for each year and each country analysed. It is available for the full time period that we study, and it strongly correlates with König and Ohr’s index of SWIID measures are virtually identical to OECD measures of income inequality ($r = 0.947$) for the 107 overlapping country-years (the OECD data set is severely limited in its longitudinal scope). Solt (2009) demonstrates that the SWIID has superior validity over the income inequality data sets it was designed to replace.

7 For a similar development of euroscepticism, see Eichenberg and Dalton (2007).

8 This measure of education may not be equivalent across countries and over time. However, cross-national equivalence is not a primary concern here, since we explain variation over time rather than between countries. To achieve cross-temporal equivalence, an option is to standardise education over time to correct for possible changes in aggregate educational attainment. However, we are interested in absolute rather than relative levels of education. The fact that citizens nowadays tend to complete more years of education may in itself have consequences for their attitudes, which would be overlooked when standardising education over time.

9 Respondents who reported that they are still in education are classified on the basis of their age. Those of 20 years and older are assigned to the 20+ category, whereas respondents younger than 20 and still in education are excluded from the analyses. For this latter group, we cannot use their years in education as a proxy for educational level, as we do not know at what age they eventually finished their education.
In addition, we control for two more macro-level variables, unemployment and inflation, which have been shown to affect support for European integration (Anderson and Kaltenthaler, 1996; Franklin and Wlezien, 1997).

At the individual level, the analyses control for age (in years) and gender. We further control for respondents’ occupation using the occupational categories provided by EB: manager, shop owner, white-collar worker, student, homemaker, retired, unemployed and manual worker (reference category).

4.5 Method

As Figure 1 shows, euroscepticism and inequality share similar trends at least for parts of our time frame. Simply regressing one variable on the other in absolute levels is thus undesirable as we risk drawing invalid conclusions as the result of this shared trend. We therefore difference the Gini coefficient, inflation, unemployment and KOF index of globalisation, so that we enter one-year changes in these variables at the right-hand side of the equation. Given that our dependent variable cannot be differenced, we control for the trend in euroscepticism by including a time variable on the right-hand side. Time is measured in years, counting the first year in the data set (1975) as 0. Although EB data are collected bi-annually, we use a yearly time variable because the other independent variables are captured on an annual basis.

The data have a cross-nested structure, as individuals are nested in both countries and time points. To account for the clustering of the data across time, we estimated a two-level random intercept model nesting individual respondents in years. Because of the low number of countries \(\bar{N} = 12\), we choose not to include a random intercept at the country level (e.g., Kreft, 1996). To control for cross-national differences in levels of euroscepticism, we include country-fixed effects. The focus of the analyses is thus on explaining variation across time.

Figure 1 Euroscepticism and income inequality in 12 EU member states (pooled analysis).

In the selection of countries included in our analyses and for the years for which both indices are available, the correlation between the European integration index and KOF index is 0.63.
This corresponds well with our hypotheses, which are fundamentally longitudinal in nature.

To test our second hypothesis that the effect of inequality is strongest amongst the least educated citizens, we test a cross-level interaction between changes in Gini (at the macro level) and levels of education (at the individual level). To allow the effect of education to vary across contexts, we include a random slope for education. Since the dependent variable in our model is dichotomous, the models were estimated employing multi-level logistic regressions.

### 5. Results

Table 2 presents the results of our analysis. Before moving to our main hypothesis, Model 1 shows that euroscepticism is positively related to age and being female. Managers, professionals and students are the least eurosceptic, whilst farmers, shop owners, the retired and the unemployed exhibit the most negative attitudes towards European integration. Moreover, whilst changes in unemployment boost euroscepticism, inflation has no such

<table>
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<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
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<tbody>
<tr>
<td>Constant</td>
<td>−0.407 (0.068)</td>
<td>−0.353 (0.072)</td>
<td>0.381 (0.071)</td>
</tr>
<tr>
<td>Age</td>
<td>0.004 (0.000)</td>
<td>−0.003 (0.000)</td>
<td>−0.001 (0.000)</td>
</tr>
<tr>
<td>Male</td>
<td>−0.267 (0.005)</td>
<td>−0.231 (0.005)</td>
<td>−0.250 (0.006)</td>
</tr>
<tr>
<td>Time (1975 = 0, 1976 = 1 . . .)</td>
<td>0.004 (0.003)</td>
<td>0.008 (0.003)</td>
<td>0.007 (0.003)</td>
</tr>
<tr>
<td>Δ Gini</td>
<td>0.015 (0.004)</td>
<td>0.058 (0.007)</td>
<td>0.055 (0.007)</td>
</tr>
<tr>
<td>Δ Unemployment</td>
<td>0.056 (0.003)</td>
<td>0.055 (0.003)</td>
<td>0.054 (0.003)</td>
</tr>
<tr>
<td>Δ Inflation</td>
<td>−0.001 (0.002)</td>
<td>−0.001 (0.002)</td>
<td>−0.001 (0.002)</td>
</tr>
<tr>
<td>Δ KOF globalisation</td>
<td>−0.014 (0.002)</td>
<td>−0.013 (0.002)</td>
<td>−0.013 (0.002)</td>
</tr>
<tr>
<td>Education</td>
<td>−0.119 (0.004)</td>
<td>−0.099 (0.004)</td>
<td>−0.099 (0.004)</td>
</tr>
<tr>
<td>Education * Δ Gini</td>
<td>−0.007 (0.001)</td>
<td>−0.006 (0.001)</td>
<td>−0.006 (0.001)</td>
</tr>
<tr>
<td>Occupation (ref: farmer/manual)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional/management</td>
<td>−0.506 (0.011)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owner shop/business</td>
<td>−0.165 (0.011)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White collar/services</td>
<td>−0.213 (0.008)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student/military</td>
<td>−0.309 (0.017)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household</td>
<td>−0.161 (0.009)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retired</td>
<td>−0.148 (0.010)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>0.129 (0.011)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slope variance (education)</td>
<td>0.001 (0.000)</td>
<td>0.001 (0.000)</td>
<td></td>
</tr>
<tr>
<td>Level 2 variance</td>
<td>0.042 (0.010)</td>
<td>0.076 (0.018)</td>
<td>0.074 (0.018)</td>
</tr>
<tr>
<td>ICC</td>
<td>0.013</td>
<td>0.023</td>
<td>0.022</td>
</tr>
<tr>
<td>−2 LL</td>
<td>1 002 210</td>
<td>981 274</td>
<td>977 126</td>
</tr>
<tr>
<td>Level 1 N</td>
<td>763 983</td>
<td>763 983</td>
<td>763 983</td>
</tr>
<tr>
<td>Level 2 N</td>
<td>35</td>
<td>35</td>
<td>35</td>
</tr>
</tbody>
</table>

Note: Dependent variable: EU-membership good (=0) or bad/indifferent (=1). Random intercept models nesting individual respondents in years. Models include country fixed effects. Boldface entries are significant at $P < 0.05$ (two-tailed).
effect. Franklin and Wlezien have commented on the economic foundations of EU attitudes: ‘It is as though the public perceives European unification as a luxury that can be afforded when economic times are good and not afforded, or afforded to a lesser extent, when economic times are bad’ (Franklin and Wlezien, 1997, p. 354). Still, one might also follow a logic that is more akin to our H1 that the public partly blames the EU for unemployment, much like it punishes national governments for economically bad times (Fiorina, 1987). Finally and surprisingly, changes in the KOF index of globalisation actually dampen euroscepticism after controlling for the other variables at the micro- and macro-level.

The main argument of this study is that increasing economic inequality boosts euroscepticism. Model 1 in Table 2 shows that this hypothesis is corroborated in the empirical analyses. Changes in economic inequality have a positive effect on euroscepticism after controlling for unemployment, inflation, and globalisation. To our knowledge, this study represents the first attempt at arguing for and empirically testing the adverse effects of economic inequality on euroscepticism. As regional integration has boosted income inequality in domestic societies (Beckfield, 2009), our findings suggest that the European public in turn has reacted to this development by adopting more eurosceptic attitudes.

Our theoretical considerations also address the heterogeneity of the public. H2 formulated the expectation that people with low levels of educational attainment are more sensitive to increased economic inequality than are highly educated individuals. In Model 2, the main effect of education is added to the model and, as expected, the effect is negative. The better educated are less sceptical of the European Union than the lower educated. This is in line with previous studies, which showed that the higher educated are less eurosceptical than the lower educated (Kriesi et al., 2008; Hakhverdian et al., 2013). Model 2 also includes the interaction between changes in income inequality and education. This interaction turns out to be significant and negative in support of H2. This implies that a rise of income inequality has a particularly pronounced effect on the lower educated. The effect of rising inequality on euroscepticism is almost twice as large for the lowest education category compared with the highest. Model 3 shows that these results are robust to including occupational categories as further controls.

Figure 2 visualises these results by presenting the predicted probabilities that we derived from Model 3. For the highest educated, the predicted probability of being eurosceptic does not depend on changes in income inequality. For the lower educated, however, another picture emerges: As changes in income inequality become larger, so does the predicted probability of being eurosceptic for lower-educated people. Still, Figure 2 also adds an important qualifier. Whilst income inequality has a statistically significant effect on euroscepticism, the overall magnitude of these effects is rather modest. The difference in predicted probability of being eurosceptic between an economic context of maximum and minimum changes in annual inequality is only about 0.05, which translates into an increase of 10%. Having said that, both hypotheses receive empirical support. Euroscepticism is partly driven by distributional concerns, especially amongst lower educated individuals.

6. Additional robustness checks

To further test the robustness of our results, we estimated additional models including a host of further control variables and model specifications. Results of these analyses can be found in the Supplementary Material. One might argue that euroscepticism is part and parcel of a more general trend of political alienation, and our analyses capture the latter rather than the former.
For this reason, we also estimated additional models where we controlled for respondents’ satisfaction with the functioning of (national) democracy. However, this did not change our results, which can be found in Supplementary Material Table SA1. Because this question was not asked in all waves, this variable is not included in the main models presented because this would decrease the number of observations. In turn, the findings presented in Supplementary Material Table SA2 show that the results are robust also when interacting occupational categories with income inequality. This confirms our hypothesis that what matters is people’s level of education, rather than their position on the labour market. To ascertain whether the results are sensitive to ideology, Supplementary Material Table SA3 shows models including a variable referring to respondents’ self-placement on a left–right scale and its square. This does not substantively change the results. Scholars agree that the Treaty of European Union, signed in Maastricht in 1992, had a major impact on public orientations towards European integration. We therefore conducted additional analyses where we accounted for this by including a dummy variable that differentiates between the pre- and post-Maastricht period. These results still support our main hypotheses. When interacting the Maastricht dummy with time (Supplementary Material Table SA4), it is shown that euroscepticism decreased in the years prior to the Maastricht treaty, but then increased again. Higher inequality increased the predicted probability of euroscepticism amongst low-educated individuals before (Supplementary Material Figure SA1) and after (Supplementary Material Figure SA2) the signing of the Maastricht treaty. As it might take a while until the general

Figure 2 Predicted probabilities and the effect of income inequality on euroscepticism.
public responds to increases in inequality, we used a variety of different time lags for Gini and the globalisation index in additional models shown in Supplementary Material Table SA5. Finally, Supplementary Material Table SA6 controls for the length of EU membership, whilst Supplementary Material Table SA7 includes models with other combinations of macro-level control variables. The findings corroborate our results.

7. Conclusion and discussion

In this article we proposed two hypotheses: that increases in levels of income inequality in a country lead to increases in euroscepticism (H1) and that this effect is strongest for the least educated (H2). We tested our hypotheses using a comprehensive data set, which combines Eurobarometer data from 12 countries across 35 years, and which in total contains data on more than half a million respondents. Both hypotheses were supported in multi-level regression models.

These findings have a number of theoretical and societal implications. Theoretically, the study supports the notion that within-country income inequality has a negative effect on citizens’ attitudes towards public institutions (Anderson and Singer, 2008). Whilst capturing differences within rather than across countries, increasing income inequality also appears to negatively affect attitudes towards trans-national institutions. This leads to a second theoretically relevant implication, which is that citizens are likely to blame the EU for income inequality. Several scholars have presented evidence that EU policies indeed contribute to income inequality (Boje et al., 1999; Beckfield, 2006, 2009) and limit the possibilities of nation-states to correct inequalities through welfare spending (e.g. Ferrera, 2005). For the purpose of our study, it is not relevant whether this is indeed the case. What matters is that this claim often appears in political discussions and translates into people’s perception (Cautrès, 2005; Beckert, 2007). Our results show that many citizens consequently use the EU as a scapegoat for income inequality and this is especially likely for the lower educated.

A third theoretical implication is that our study generated some support for the idea that a new cleavage has developed around new ‘socio-cultural’ issues such as European integration (e.g., Kriesi et al., 2008). It is clear that a relationship exists between education and euroscepticism and that this relationship becomes stronger when there is more income inequality in a country. We would, however, not go as far as Kriesi et al. (2008) in calling this a new political cleavage as defined by Lipset and Rokkan (1967), because that would require changes in the national party systems, which have until now not occurred (Van der Brug and Van Spanje, 2009).

These results also carry implications for the democratic legitimacy of European integration. First, as long as EU policies are perceived to contribute to income inequalities, future increases in within-country inequality will lead to increases in euroscepticism. Importantly, however, the trend towards more inequality within countries has been accompanied with economic convergence across West European countries. Beckfield (2009) thus concludes that at least in Western Europe, the EU has achieved its goal to diminish the gap between rich and poor member states and reduce overall income inequality. Thus, if European citizens cease to see their national community as the main reference point for redistribution and inequality, and start thinking along a pan-European dimension, they might start to acknowledge this overall trend as a result of which negative attitudes toward the EU might be alleviated.
However, the prospects for such a scenario are dire. Our study was conducted in the period before the economic crisis, which since seems to have reinforced national interests. The EU receives the blunt of the blame for the current recession in Southern European countries, which have to meet financial austerity regulations, as well as in Northern European countries, where the population feels that they have to pay the price for the lack of financial austerity abroad. Moreover, at least in the short term, the crisis has overturned some of the economic convergence across the EU. If increasing euroscepticism as a result of the handling of the crisis is combined with increasing euroscepticism as a result of within-country income inequalities, support for the European project may decline considerably.

Supplementary material

Supplementary material is available at SOCECO online.

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