Individual and Contextual Sources of (Mis)Perceptions About the Impact of Immigration on the Welfare State

SAMIR MUSTAFA NEGASH 🆔

Leiden University, Institute of Public Administration, The Hague, the Netherlands
email: s.m.negash@fgga.leidenuniv.nl
Corresponding author: Email s.m.negash@fgga.leidenuniv.nl

Abstract

There is a large discrepancy in European countries between the measured impact of immigration on the welfare state and how this impact is perceived by citizens. This study examines the determinants of individuals' perception of the impact of immigration on the welfare state. A number of hypotheses at both the individual and contextual level are tested using a multilevel model with data from the European Social Survey. I find that the institutional features of welfare states are associated with different views on the impact of immigration on welfare states: generous contributory social welfare benefits are associated with more favourable attitudes about immigrants, while generous non-contributory benefits, by contrast, are associated with more pessimistic assessments about the fiscal impact of immigration. I argue that this can be because the latter potentially signals to natives that migrants could access generous benefits without any requisite work history. At the individual-level, the results indicate that subjective risk and general opposition to immigration are powerful individual-level predictors: people who feel more economically insecure or who are generally opposed to immigration are more likely to think that it constitutes a burden for the welfare state.

Keywords: immigration; welfare state; public finance; immigration attitudes

1. Introduction

There is a large discrepancy in European countries between the measured fiscal impact of immigration on the welfare state and how it is perceived by citizens. On the one hand, a recent OECD study of 25 countries found that in all the countries analysed, immigrants contribute more in taxes and contributions than governments spend on their social protection, health and education (OECD, 2021a, 112). Controlling for individual characteristics, immigrants at most receive a measure equal to that of natives from welfare programs, and usually receive lower or similar benefits (Huber and Oberdabernig, 2016). On the other hand, public perceptions of the impact of immigration on the welfare state sharply contrast with these empirical findings. According to data from the European Social Survey ERIC (ESS ERIC, 2003, 2015), in almost all EU

countries the proportion of people who think that immigrants receive more than what they contribute is larger than those who think the opposite.

This discrepancy has received scant attention in previous studies. This dearth of attention is surprising as the perceived cost of immigration for the welfare state plays an important role in debates about immigration policy. For example, immigration policy preferences were found to be sensitive to the fiscal effects of immigration. Hanson *et al.* (2007) show that in areas where migrants' benefit take-up rates are high, natives favour more restrictive immigration policies. More recently, Blinder and Markaki (2019) find that negative perceptions about the welfare impact of various migrant groups in Europe motivate opposition to these groups. Others have used it as a predictor of support for redistribution (Magni-Berton, 2014; Senik *et al.*, 2009) – however, without explaining what shapes these views in the first place. Views about minority groups' welfare (ab)use also affect social policy preferences. In the United States, for example, social policy preferences and stereotypes about racial minorities are tightly interwoven (Gilens, 1999). In Germany, believing that ethnic minorities constitute fiscal drains reduces support for means-tested unemployment benefits in general (Goldschmidt, 2015).

This study aims to uncover which factors shape these perceptions. If perceptions about immigrants' fiscal impact influence social and immigration policy preferences, it is useful to investigate what affects these perceptions in the first place. To do this, I examine individual and contextual factors that might influence individual beliefs about the fiscal impact of migrants. Besides studying individual-level factors, I also investigate the effects of contextual determinants.

In terms of these contextual factors, this study considers the institutional setup of the welfare state as a possible factor shaping perceptions of the impact of immigration. In this, it draws on previous work showing that welfare state institutions can also shape public attitudes to welfare and redistribution (Svallfors, 1997). While previous studies have explored the effects of social spending, replacement rates or composite indices for generosity (Crepaz and Damron, 2009; Heizmann, 2015; Jaime-Castillo *et al.*, 2016), here I draw on Esping-Andersen's (1990) insight that the size of the welfare state per se is not enough to understand its effects. We need to look at how it is structured. Distinguishing between contributory and non-contributory schemes is especially important given differential take-up rates across schemes: immigrants are clustered in a specific set of social programmes (OECD, 2013). They are less likely to draw on old-age pensions due to the lengthy contribution requirements, or because their age profiles differ from natives. However, in some European countries, immigrants have higher take-up rates of social assistance and other non-contributory benefits than might be expected based on their characteristics (Boeri, 2010). Therefore, it is conceivable that in contexts with generous contributory schemes, but residual non-contributory programmes, perceptions of their

welfare impact are more positive (and vice versa): non-contributory schemes signal that it is difficult to access benefits without prior contributions. My results are consistent with this idea, while other factors such as the characteristics of the migrant population have no observable effect.

The rest of this paper is structured as follows. The next section provides an elaboration of the concept of perceived welfare impact. This is followed by a discussion of how the socio-economic context might affect it. The propositions derived from the previous section are then tested in several multilevel models including both individual-level and country-level variables using the European Social Survey's 2002/2003, 2008/2009 and 2014/2015 waves.

2. Theory
2.1 . Individual drivers

A variety of factors can influence how individuals form attitudes on the impact of immigration on the welfare state: feelings of economic threat, a general antipathy/sympathy to immigrants, or individuals' best estimates of the "real" impact. Given that this "real" impact is highly complex and uncertain, people's *descriptive* perceptions are very likely to be coloured by *normative* assumptions. It is worth noting that these channels need not be mutually exclusive. Someone with a general dislike of immigrants may also feel more economically insecure. Highly-educated individuals are often more optimistic about the impacts of immigration and also enjoy higher levels of economic security. However, their positive assessments could be the result of them being more informed in general about the presence of migrants and their impact.

Economic threat

The welfare impacts of immigration can first be viewed as a manifestation of economic threat posed by immigrants to natives; individuals that feel less secure economically may be more likely to have a negative idea of the impact of immigrants because they may perceive them as direct competitors for resources. This is best understood in light of the insights provided by group threat theory (GTT), which identifies group positions as a central factor that structures inter-group relations (Blalock, 1967; Blumer, 1958). A key feature of GTT is the assumption of group-based competition (Blumer, 1958, 3). Competition can relate to material resources such as housing, jobs or welfare benefits or immaterial ones such as cultural superiority. This competition for resources creates various forms of perceived threats among majority-group members (Quillian, 1995). Here it is useful to distinguish between those who rely on the welfare state now (*objective risk*) and those who fear they might need it in the future (*subjective risk*) (Kros and Coenders, 2019). Hence, we might expect that those who need the welfare state now or expect to rely on its services

in future will be more likely to think that immigrants are a burden on the welfare state. Alternatively, we might expect that objective and subjective risk might have different impacts. If we consider that *status anxiety* has been seen as a driver of populist radical right support (Gidron and Hall, 2017), the fear of losing one's job might act as a more powerful driver than being on benefits. This leads to the following hypotheses:

H1a: individuals who rely on the welfare state have more negative assessments of the welfare impact of migration (objective risk).

H1b: individuals who are likely to need the welfare state in the near future have more negative assessments of the welfare impact of migration (subjective risk).

Anti-immigration sentiments

Relatedly, perceptions of the welfare impact of immigration can indicate antipathy or sympathy to immigrants. Views about immigrants' impact on the host country are often portrayed as manifestations of perceived threats that natives may experience. Consequently, studies that aim to explain opposition to immigration typically include related variables as dimensions that collectively constitute anti-immigrant attitudes (Schlueter and Scheepers, 2010). Others suggest that prejudice and antipathy precede attitudes about out-groups[1]. The justification model of prejudice provides insights into this dynamic. According to this framework, prejudice is usually not directly expressed but is instead often modified to meet social expectations (Crandall and Eshleman, 2003, 416). Hence, concerns about the economic and/or fiscal impact of immigrants on host countries may be a "legitimizing cloak" used to express general opposition to immigration. The mechanism here is that *normative* assessments of immigration may shape *subjective* perceptions of its fiscal impact. While the relationship between xenophobic sentiments and perceptions of the impact of immigration may appear somewhat tautological, empirical evidence shows that the relationship across immigration attitudes is more complex. For instance, surveys show that individuals in Scandinavia are more positive about immigrants than in other European countries (Nagayoshi and Hjerm, 2015, 8), and yet Danish and Swedish respondents are no less likely to believe that non-western migrants have a poor work ethic (Larsen, 2011). It is therefore worth disentangling these dimensions.

H2: individuals with more negative views about immigration are more likely to perceive it as a burden on the welfare state

Cognition

Alternatively, the perceived welfare impact of immigration may constitute an individual's best estimate. More than perhaps most other perceptions about migrants' impact on their host countries, this dimension can be quantified. Although efforts at estimating the fiscal impact of migration require making judgments about the appropriate time horizon and how to weigh contributions and costs (Hennessey and Hagen-Zanker, 2020). Scholars have also approached the topic in different ways, e.g. by examining net fiscal positions or residual welfare dependence (Boeri, 2010; Hennessey and Hagen-Zanker, 2020). Even if the perceived impact reflects a best estimate, previous research indicates that individuals process information in biased ways for a variety of reasons. For example, people are prone to generalize based on limited samples of personal experiences or media accounts (Herda, 2010). Wong (2007) finds, for example, that when people estimate the size of the foreign-born population, they are prone to generalize based on their personal experience. Those living in neighbourhoods with visible minorities are more prone to provide a higher national estimate. Similarly, media accounts can be a major source through which particular examples are extrapolated to arrive at general assessments about the characteristics of immigrants (Blinder and Allen, 2016).

2.2. Contextual drivers: Welfare institutions

The links between welfare institutions and the perceived welfare impact of immigration are not straightforward. Individuals in countries with more generous welfare states may be more concerned about the cost of immigration because generosity implies higher fiscal costs. In line with this idea, increases in social expenditures in the short-run were found to increase negative views about immigrants (Jaime-Castillo *et al.*, 2016). The concern may be particularly acute in universal welfare states where access is broader and eligibility less restrictive. Here it is useful to consider different characteristics of welfare states as potential influences on perceptions of the impact of immigration.

Welfare generosity

Generous welfare states imply higher fiscal costs to maintain benefits. Besides, according to the "welfare magnet" hypothesis, welfare generosity may attract low-skill immigrants that may be more likely to receive welfare while contributing little in taxes (Borjas, 1999). While findings on this topic provide mixed support (e.g., Giuletti *et al.*, 2011; de Jong, 2019), this assertion may impact public opinion nevertheless, and invite greater concern about their fiscal impact in more generous welfare states.

Alternatively, several studies suggest that generous welfare states are associated with more positive assessments of immigrants' welfare impact

(Crepaz and Damron, 2009). More generous welfare states provide a better cushion against economic risk, thereby lowering feelings of threat vis-à-vis immigrants. Several studies provide credence to this argument. For example, Crepaz (2008) argues that the decommodifying capacity of the welfare state lowers hostility towards immigrants and the feeling of threat they represent. Others have used social spending and found that individuals have greater sympathy for and willingness to extend benefits unconditionally to immigrants in countries that devote higher shares of their GDP to social expenditures (van Oorschot and Uunk, 2007).

Welfare structure

One aspect that previous studies have neglected is the organising principles according to which social programmes are funded, and how they may act as informational mechanisms for citizens. Gingrich (2014) highlights how welfare states can have an "informational function" by providing citizens with information that can inform their voting decisions. Along similar lines, we can consider that the structure of welfare states can act as informational tools signalling to citizens possible risks related to immigration for welfare states. Generous non-contributory benefits can be expected to lead to more negative evaluations. That is because benefits could be received without prior contributions and therefore have less visible elements of reciprocity, which social insurance programmes funded through contributions typically contain. Immigrants' welfare use is – relative to their social profiles – more important in non-contributory schemes and relatively less important in contributory schemes like unemployment insurance. Therefore, individuals in countries with relatively generous non-contributory benefits may be more likely to view immigrants as fiscal drains.

H3a: the perceived welfare impact of immigration is more negative (positive) where contributory benefits are more generous.

H3b: the perceived welfare impact of immigration is more negative (positive) where non-contributory benefits are more generous.

2.3. Contextual drivers: the characteristics of the migrant population

It is plausible that the features of the foreign-born population affect views about migrants' welfare impact. Here I focus on the composition of the migrant population as a salient feature. Theories of group threat, realistic group competition, and ethnic competition all point to the presence of the out-group as a determinant of threat perceptions (Gorodzeisky and Semyonov, 2019;
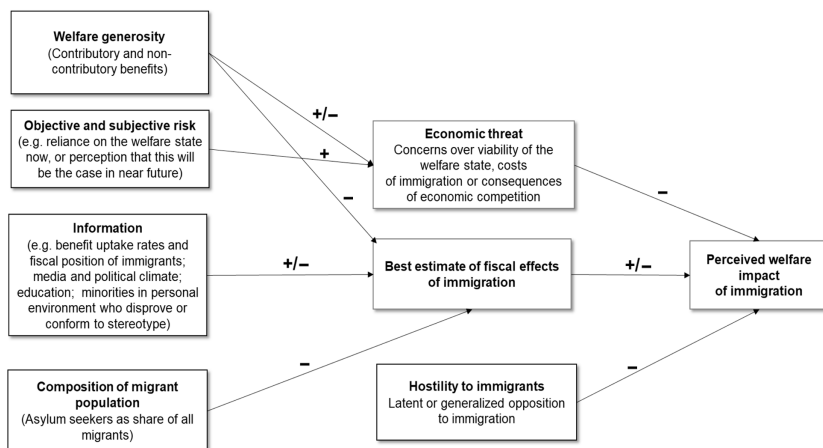
FIGURE 1. Conceptual model of individual and contextual factors that affect the three channels through which the perceived welfare impact of immigration emerges

Schlueter and Scheepers, 2010). Another school of thought looks at the skill-levels of migrants and suggests changes in the attitudes and policy preferences of natives are sensitive to skill compositions (Dustmann and Preston, 2007; Tingley, 2013). Finally, the extent to which the migrant population is composed of humanitarian migrants might be consequential, as this group is likely to be more dependent on welfare benefits. Hooijer and Picot (2015) find that a country's asylum policy is a good predictor of poverty among migrants. The poverty rate among migrants – on balance – is higher in countries that take in more humanitarian migrants, because these migrants are not selected based on their human capital. Coupled with the fact that in many European countries asylum seekers cannot access the labour market, it is more likely that they will be dependent on welfare (in the short-run). While there are indications that Europeans overestimate the presence of asylum seekers and immigrants more generally (Blinder and Allen, 2016), these misperceptions could be correlated with the actual size and composition of the immigrant population (Gorodzeisky and Semyonov, 2019). Hence, a larger share of refugees may signal to the public a greater level of welfare dependency. Based on this, the following hypothesis can be constructed:

H4: perceptions about the welfare impact of immigration are more negative where asylum seekers make up a larger share of the migrant population.

Figure 1 summarizes the conceptual model. It shows how individual and contextual factors affect the three channels that shape the perceived welfare impact of immigration. Welfare generosity can ameliorate or intensify economic threats.

Funding models could provide a signal that can help individuals gauge whether immigrants are likely to constitute a fiscal drain. Economic insecurity can amplify economic threats. The composition of the migrant population is another indicator that natives may resort to when thinking about the welfare impact of immigration. Lastly, several other factors affect people's ability to estimate with greater accuracy the likely impact of immigration, e.g. education or the way immigration is framed in public discourse.

3. Data and methods
Data and operationalization
3.1.1. Dependent variable

The dependent variable is the *perceived fiscal impact of immigrants on the welfare state*. To operationalize this variable, I use three waves of the European Social Survey ERIC (ESS ERIC) (2003, 2009, 2015) and all the individual-level variables come from this dataset. The following question from the 2002/2003 and 2014/15 waves is used: "Most people who come to live here work and pay taxes. They also use health and welfare services. On balance, do you think people who come here take out more than they put in or put in more than they take out?" The 2008/2009 wave contains a slightly differently worded version of this question. The wording is as follows: "A lot of people who come to live in [country] from other countries pay taxes and make use of social benefits and services. On balance, do you think people who come to live in [country] receive more than they contribute or contribute more than they receive?" Since the question taps the same attitudes and is measured on the same eleven-point scale as the question in the 2002/2003 and 2014/2015 waves, I opted to include this wave as well. Higher values indicate stronger agreement with the statement that immigrants contribute more than they take out.

3.1.2. Country-level independent variables

For the main country-level *independent variables*, I use data from the OECD. First, to differentiate between the generosity of the contributory schemes and non-contributory schemes, I focus on two measures. For the generosity of contributory schemes, I use *unemployment benefits generosity*. I use data on net replacement rates to operationalize the generosity of unemployment insurance (OECD, 2019b). This variable denotes the share of previously earned income from work that different model households receive[2]. I use the average of these different model households to arrive at a measure for the generosity of unemployment benefits. To operationalize the generosity of *non-contributory* schemes, I rely on the generosity of *guaranteed minimum income benefits (social assistance* hereafter*)* (OECD, 2019a). This variable captures social assistance benefits as a share of the median household's disposable income. Here too,

the measure is the average of the different model households for which the OECD provides the level of social assistance.

Operationalizing welfare generosity has several advantages over using social spending. First, the theoretical argument made in this paper is that generosity matters. Spending more appropriately captures welfare effort, but it also reflects need and accessibility (Green-Pedersen, 2004). Spending could thus obscure whether it is indeed the generosity of social programmes that affect perceptions about the welfare impact of migration. Second, the OECD does not have a category that indicates the share of GDP spent on social assistance. As the impact of different funding models matters to the theoretical argument under investigation, we need an approach that makes it possible to gauge the generosity of minimum income benefits.

As for the migrant population's composition, I employ the *inflow of asylum seekers as a share of all migrant inflows* to operationalize this variable. The OECD does not provide a measure for the stock of asylum seekers, which would be a more appropriate measure. The inflows in any given year might be nonrepresentative of the composition of a country's migrant stock. Given that the number of asylum seekers is relatively small, I expect the annual number of asylum seekers entering the country to be a poor operationalization. Instead, I use three-year averages to obtain a measure that may be more representative of the characteristics and reputation of the foreign-born population in each country under study.

To control for the effects of the business cycle, I use the *unemployment rate* (OECD, 2020). Unfavourable economic conditions can increase anti-immigration attitudes by heightening anxiety and perceived threat and competition over resources (Meuleman, 2011). Given that elite cues may also influence attitudes, I also account for the strength of radical right parties using the *vote share of radical right parties* in the most recent national election preceding each ESS wave (Armingeon *et al.*, 2019).

Finally, to control for migrants' *objective welfare use*, I calculated indicators using the EU Survey of Income and Living Conditions (EU-SILC) as proxies for the welfare impact of immigration. Migrants' use of welfare does not fully capture their overall welfare state impact. Nonetheless, it may be considered a reasonable proxy of their welfare impact, as the overall fiscal effects and their participation rates in social programmes are likely to be correlated. These indicators are calculated by estimating probit models to obtain the probability that migration status helps predict whether an individual receives some form of social transfer[3] or non-contributory benefit. Given that the same coefficient estimate can be accompanied by different degrees of uncertainty, I use the Z-values of the probit regressions instead. These are obtained by dividing the coefficient by the standard error[4]. This accounts for the uncertainty of these estimates but retains the direction of the estimate. So where migration status is a strong

predictor of welfare use, the corresponding Z-value will be positive and larger. But if the estimate contains higher degrees of uncertainty, the corresponding Z-value will be penalized for this through the larger denominator. The association will still point in the same direction, but a smaller Z-value is obtained. As these data are only available from 2004 onwards, and because this does not change the results, the main models are estimated without these variables.

3.1.3. Individual-level independent variables

As for individual-level independent variables, *subjective risk* is operationalized using *financial insecurity*. This is a four-point ordinal variable that asks respondents how they feel about their financial situation. The answers range from 1 = living comfortably on present income; 2 = coping on present income; 3 = difficult on present income and 4 = very difficult on present income. My measure of objective risk is whether an individual's income is primarily derived from social transfers aside from pensions. To do this, I recoded questions that asked individuals about their primary source of income to construct a dummy variable (1 = some form of welfare as primary source of income).

I also control for common individual characteristics known to affect welfare and immigration-related attitudes. Negative views about out-group members can reflect threats to an individual's economic well-being (Hainmueller and Hiscox, 2007). Therefore, my models include *education* measured in number of years as education may reduce vulnerability and increase tolerance and appreciation of out-group members. I also account for *employment status* (1 = unemployed). I control for *age* and *sex*. Age is a continuous variable and the sex of the respondent is a dummy variable (=1 if female).

Given that the perceived welfare impact could reflect general opposition to immigration, I include a variable that captures *immigration policy preferences* by aggregating three questions about immigration policy preferences[5]. Higher values indicate a more restrictionist preference. The Cronbach's alpha is 0.85, suggesting that the additive index is reliable. Lastly, I also control for ideology using the *left right-scale*. This ranges from 0-10 and higher values indicate more right-leaning individuals.

3.1.4. Analytical sample

Overall, more than 100,000 individuals across the three waves of the ESS provided an answer to the question used for the dependent variable, but the non-response rate for other questions leaves an effective sample of 82,093. The sample contains 22 countries and 54 country-years, although due to missing observations on some variables for some country-years, the effective sample varies slightly per model. I retain the immigrants in the sample. Their opinions could differ systematically from natives though. Previous research suggests that

this may not necessarily be the case (Sarrasin *et al.*, 2015). To account for this, I control for whether the respondent was *born* in the country (1= if born in the country) and is a *citizen* of the country (1= citizen).

3.2. Method

The data for this study has a nested character, with individual respondents nested in country-years, which are themselves nested in countries. It is plausible that the residuals of observations from the same country or country-year are not independent of each other. This is because observations from the same country may be more similar to each other than observations from different countries or country-years. Ignoring this clustering during the analysis would produce anti-conservative standard errors and confidence intervals. I, therefore, estimate linear multilevel models using country-years as the level-2 cluster. I cluster standard errors for the third-level as the objects of substantive interest here are level-1 and level-2 variables. The number of countries included in the analysis is slightly imbalanced. Several countries only feature in some of the three waves. This should not lead to any problems though as multilevel models can estimate unbalanced data of this kind without much trouble (Hox, 2010). All models display Akaike information criteria (AIC) to help interpret model fit. To preserve space, the results presented do not display the control variables. The complete models are available in the appendix.

4. Results

4.1. Descriptives

Figure 2 contains the country-year means for the dependent variable. The graph shows that Europeans in most countries perceive immigrants to be net beneficiaries, although there are substantial cross-country differences, and differences within the same country over time. The difference between the objective and perceived welfare impact of immigration is substantial. Respondents in the UK, for example, tend to assess the welfare impact of immigration negatively, whereas research on the topic consistently shows that immigrants are net contributors in the UK. Danish and Swedish respondents are less pessimistic about the effects of immigration, yet studies consistently find that immigrants in these countries tend to be net beneficiaries[6]. Czech and Hungarian respondents are considerably more negative than respondents in other European countries, even though migrants in these countries tend to be net contributors (Hennessey and Hagen-Zanker, 2020). This indicates that other contextual factors are needed to explain these differences between countries. Furthermore, Figure 2 also shows that Europeans' assessments of immigrants' welfare impact have become more positive over time in most
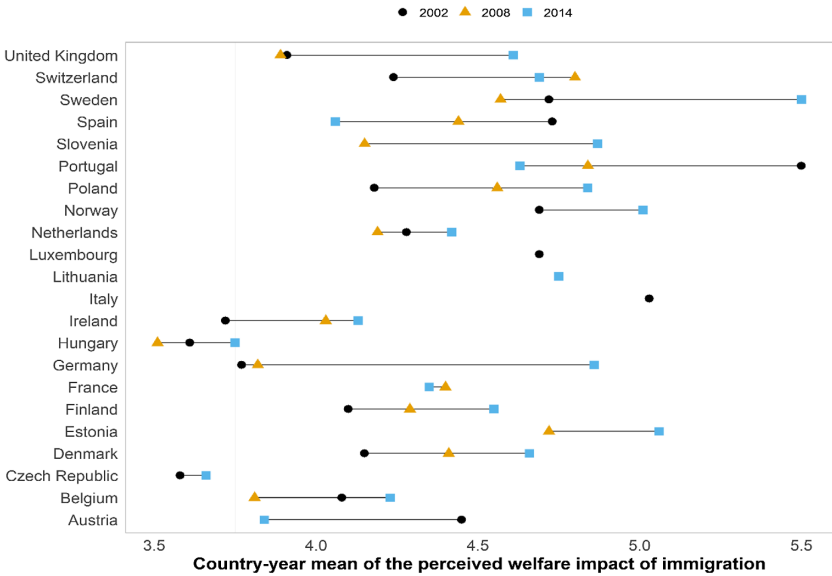
FIGURE 2. Trends in attitudes towards immigrants' welfare impact in Europe 2002-2014.

countries. This trend is consistent with other evidence of a general improvement in immigration attitudes in Europe (Dennison and Geddes, 2019).

4.2. Baseline multilevel models

I start with *economic threat* as a channel through which the perceived welfare impact comes about, M1 and M3 include the individual-level predictors. Consistent with the discussion in the theory section, those who experience greater insecurity (subjective risk) are indeed more negative about the welfare impact of migration. Interestingly, however, welfare beneficiaries have on average more positive assessments of immigrants' welfare impact, thereby ruling out the idea that direct competition for benefits is a factor. Therefore, the hypothesis that economic risk (H1a and b) produces more negative assessments can be rejected with regards to subjective risk (H1b). It remains an open question why being a welfare beneficiary, and having a clear material stake in the sustainability of the welfare state, does not feed the same zero-sum conflict as subjective insecurity. One explanation could be that those receiving benefits are less likely to question the neediness of migrant beneficiaries. Greater affinity in this regard could be a consequence of having interacted with the welfare system more and having more intimate knowledge of the various levers of conditionality and stigma that come with subsisting on benefits (Marttila *et al.*, 2010).

Examining the pathway that flows through *sympathy for immigrants*, those who generally oppose immigrants also consistently perceive immigrants' welfare impact more negatively. The control variables provide support to the importance of this pathway. Right-leaning individuals are generally more pessimistic about the welfare impact of immigration. Immigrants themselves perceive the impact of immigration more positively.

To understand how contextual factors shape the perceived welfare impact, M2 and M3 contain the country-level predictors. As for H3a and H3b, which pertained to the generosity of contributory and non-contributory benefits respectively: the importance of welfare programmes appears to depend on the funding structure. Individuals in countries with more generous social assistance schemes are statistically significantly more pessimistic about the welfare impact of migration. Moreover, while the perceived welfare impact is more positive in countries with generous contributory benefits, this relationship is not statistically significant. The importance of welfare institutions for perceptions of immigrants' welfare impact thus depends on the funding structure of social programmes, and only generous non-contributory benefits have some bearing on these attitudes. As such, only the null hypothesis for H3b can be rejected. As for the other contextual factors, they are all statistically insignificant. Whether a country has more unfavourable economic conditions or a stronger presence of radical right parties, these are not systematically related to impressions of migrants' effects on public finance. This also applies to the composition of the migrant population: individual perceptions of immigrants' welfare impact are not statistically significantly more negative when asylum seekers make up a larger share of the migrant population (H4). This is interesting when one considers that refugees are likely to be net recipients, at least in the short-term. One possible explanation for this result may be that individual perceptions about the composition of the migrant population are skewed. Individuals misperceive the immigrant population as being disproportionately composed of humanitarian migrants (Alesina *et al.*, 2018; Blinder and Allen, 2016) (Table 1).

To explore why individuals in settings with generous social assistance are more pessimistic about migrants' welfare impact, M4 – M7 estimate whether individuals concerned about *reciprocity* and *moral hazard* are more pessimistic about migrants' welfare impact in generous welfare states[7]. Unfortunately, this is only possible for 2008 as the other waves of the ESS do not contain these questions. This leaves only 16 country-years, so the results should be interpreted with some caution as there is a greater risk of false positives with so few country-years (Stegmueller, 2013). The results are visualised in Figure 3. The top panel of the graph shows that individuals concerned about moral hazard as a societal consequence of having a welfare state perceive migrants' impact more negatively in countries with generous social assistance. A similar picture is apparent for social
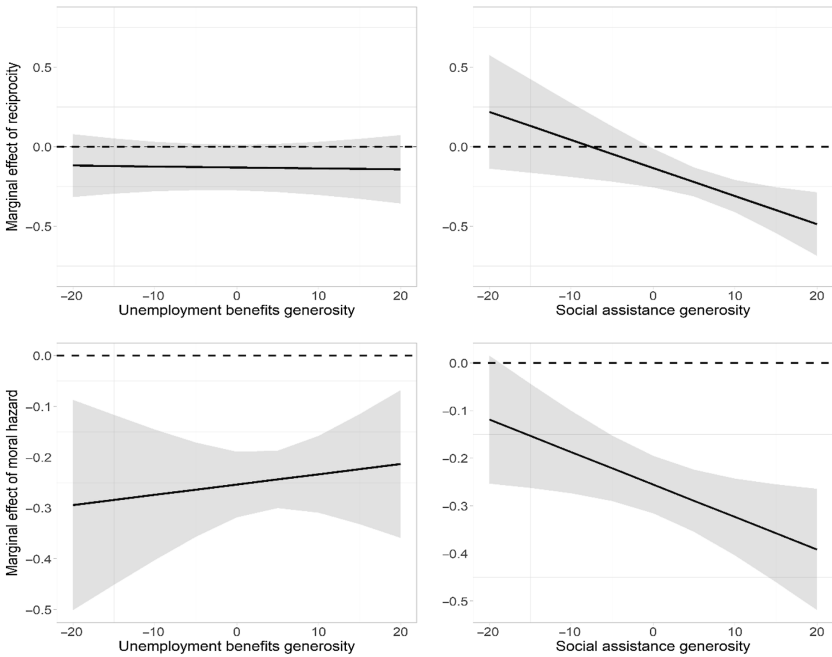
FIGURE 3. Marginal effect of reciprocity and moral hazard attitudes conditional on welfare generosity.
Note: the shaded area in grey represents 95% CI. Dashed line at zero included to distinguish statistically significant effects. DV is perceived welfare impact, higher values are more positive assessments.

assistance in the bottom panel. This shows M6 and M7 where the importance attached to reciprocity is interacted with my generosity variables. Individuals who value reciprocity are more pessimistic about immigrants' welfare impact when social assistance is more generous. Interacting unemployment generosity with welfare abuse or reciprocity shows a different relationship. Individuals who are concerned about reciprocity or welfare abuse are not more pessimistic as benefits become more generous. If anything, in settings with generous unemployment benefits, these individuals perceive the welfare impact of immigration more positively, though this is statistically insignificant.

4.3. Robustness checks

I carried out robustness checks to assess the validity of these results. Results of these robustness checks are available in the supplementary material in Tables 2–6. I examine whether the "objective" welfare use of migrants may be correlated with subjective perceptions by estimating models controlling for different measures of migrants' welfare use using EU-SILC data. Doing so, however,

TABLE 1. Multilevel models of individual and contextual determinants of the perceived welfare impact of immigration

	M1	M2	M3	M4	M5	M6	M7
Fixed part							
Country-year variables							
Unemployment benefits		0.007 (0.006)	0.009 (0.007)	0.008 (0.008)	0.008 (0.008)	0.012 (0.01)	0.012 (0.01)
Social assistance		−0.012* (0.007)	−0.013*** (0.004)	−0.011 (0.008)	−0.011 (.008)	0.002 (0.011)	0.005 (0.011)
Humanitarian migrants		−0.004 (0.005)	−0.003 (0.002)	0.016 (0.044)	.017 (.044)	−0.002 (0.007)	−0.002 (0.007)
Unemployment rate		−0.007 (0.011)	−0.001 (0.017)	0.000 (.013)	0.000 (0.013)	0.035 (0.06)	0.033 (0.057)
Radical right vote share		0.003 (0.008)	−0.005 (0.009)	−0.009 (0.006)	−0.009 (0.006)	0.004 (0.018)	0.004 (0.017)
Individual-level variables							
Currently on benefits	0.051*** (0.018)		0.051*** (0.018)	0.044 (0.034)	0.044 (0.034)	0.059 (0.036)	0.058 (0.036)
Financial insecurity (comfortable on present income reference)							
Coping on present income	−0.083*** (0.021)		−0.083*** (0.021)	−0.049 (0.030)	−0.048 (0.030)	−0.052 (0.037)	−0.052 (0.037)
Difficult on present income	−0.254*** (0.033)		−0.254*** (0.033)	−0.218*** (0.047)	−0.218*** (0.047)	−0.229*** (0.049)	−0.229*** (0.049)
Very difficult on present income	−0.521*** (0.049)		−0.521*** (0.049)	−0.408*** (0.107)	−0.407*** (0.107)	−0.352*** (0.103)	−0.352*** (0.103)
Immigration preferences	−0.308*** (0.014)		−0.308*** (0.014)	−0.246*** (0.015)	−0.246*** (0.015)	−0.262*** (0.016)	−0.262*** (0.016)
Moral hazard				−0.255*** (0.031)	−0.254*** (0.033)		
Moral hazard × social assistance				−0.007** (0.003)			
Moral hazard × unemployment benefits					0.002 (0.004)		

TABLE 1. Continued

	M1	M2	M3	M4	M5	M6	M7
Reciprocity						−0.130[*]	−0.134[**]
						(0.073)	(0.062)
Reciprocity × unemployment benefits						−0.001	
						(0.004)	
Reciprocity × social assistance							−0.015[***]
							(0.005)
Intercept	5.313[***]	4.378[***]	5.318[***]	5.063[***]	5.063[***]	5.199[***]	5.199[***]
	(0.116)	(0.08)	(0.118)	(0.172)	(0.172)	(0.198)	(0.194)
Random part							
σ^2_e	3.708	4.277	3.708	3.412	3.412	3.486	3.486
	(0.114)	(0.145)	(0.048)	(0.166)	(0.166)	(0.114)	(0.114)
σ^2_u	0.197	0.184	0.160	0.108	0.108	0.168	0.159
	(0.068)	(0.044)	(0.114)	(0.043)	(0.043)	(0.065)	(0.061)
σ^2_u *(Random slope)*				0.016	0.019	0.060	0.035
				(0.007)	(0.008)	(0.040)	(0.022)
Individuals	82093	82093	82093	24004	24004	23976	23976
Country-years	54	54	54	16	16	16	16
Countries	22	22	22	16	16	16	16
Log-likelihood	−170391.5	−176251.9	−170385.9	−48862.12	−48863.4	−49038.87	−49035.36
AIC	340814.9	352519.9	340813.8	97772.24	97774.81	98125.75	98118.72

Clustered standard errors in parentheses, [***] *p < .01,* [**] *p < .05,* [*] *p < .1.*

Notes: models M1 and M3 – M7 control for gender, country of birth, citizenship, education, age, left right-scale and employment status. The dependent variable in all models is perceived welfare impact (0-10), with higher values indicating more positive assessments. The full table is available in the appendix. M4 – M7 include random slopes for lower welfare abuse and reciprocity. All continuous variables are grand mean centred.

requires dropping the 2002/2003 wave of the ESS as the EU-SILC only stretches back to 2004. Adding these proxies for objective fiscal impact does not alter the results. Individuals from countries with generous social assistance benefits perceive the welfare impact of immigration more significantly negatively. I also tested for interactions between migrants' welfare use and social assistance generosity to see if generosity matters more when migrants make more use of welfare. This was not the case and the way individuals perceive the fiscal impact of immigrants is not systematically related to migrants' objective welfare use as operationalised here.

Second, the salience and framing of immigration and its consequences by political and media elites may vary systematically between countries and partly explain these cross-national differences. To test for this, I estimated models accounting for elite discourse. Unfortunately, comparative data on how immigrants are discussed in the media does not exist. Instead, I opted to use party manifestos (Volkens *et al.*, 2020). For each country-year, I aggregate the total share of manifestos in the most recent election in a country devoted to negative statements on multiculturalism and the number of positive statements regarding a more exclusionary national way of life and weigh this by vote share. The last part is meant to ensure that niche parties are not accorded too much weight (Helbling *et al.*, 2016; Schmidt and Spies, 2014). The results were robust to the inclusion of elite discourse as a control.

Third, I re-ran the models using other perceived impacts of immigration as the dependent variable. I used perceptions that immigrants constitute a: (1) *labour market threat*, (2) *cultural threat*, and (3) *criminal threat*. Perhaps the association between social assistance generosity and the perceived welfare impact emerges because individuals are generally more negative about immigrants in countries with generous social assistance. However, the results suggest that the perceived welfare impact is related but distinct from these subjective perceptions about immigrants and that it is explained by other factors. Social assistance generosity has no significant relationship with any of these perceived impacts of immigration. The association between social assistance generosity and perceived welfare impact is, therefore, unlikely to be a mere artefact of general hostility towards immigrants among individuals from countries with generous social assistance schemes. This point is buttressed further by the fact that welfare beneficiaries do not differ systematically from non-welfare beneficiaries in these other perceptions of immigrants.

Fourth, I employed different operationalizations of welfare generosity. First, I used the amount a household receives in social assistance in purchasing power parity as an alternative measure of social assistance generosity (Nelson *et al.*, 2020). For unemployment insurance, I used unemployment spending as a share of GDP normalized by the unemployment rate to get another measure of generosity (OECD, 2021b). These alternative measures of generosity yielded

comparable results: the perceptions of individuals in countries with generous social assistance remain more pessimistic ($p<0.05$). Finally, I checked whether the results were driven by outliers by iteratively deleting a country-year and re-running the analyses. Doing so did not change the findings.

5. Conclusion

Most Europeans believe that immigrants contribute less in taxes than what they receive through social transfers and services. These perceptions are important to understand because they inform immigration and social policy preferences. This article provides evidence that the way Europeans perceive the fiscal consequences of immigration varies depending on the institutional features of the welfare state in the country where they live. I show that generous non-contributory programmes (e.g social assistance) are associated with a greater propensity to believe that immigrants are a net burden on the welfare state even if this is not the case, as measured by objective indicators of welfare use. One possible mechanism to explain this is that welfare institutions provide citizens with information: generous non-contributory benefits can signal to citizens that immigrants can benefit without paying their way, thereby leading to more negative views about the impact of immigration.

This result is robust to alternative specifications of social assistance generosity, and a variety of additional controls, including migrants' use of welfare. Furthermore, the same relationship is not observed for the generosity of unemployment benefits. Delving into possible causal pathways, the negative association between the generosity of social assistance and the perceived impact of immigration is also stronger among individuals concerned about reciprocity and the adverse effects of welfare programmes. At the individual-level, this study shows that the perceptions of individuals currently receiving benefits and those with higher levels of economic insecurity diverge. Subjective economic risk consistently predicts more negative attitudes, while actual welfare dependence is associated with more positive perceptions. The other country-level predictors, such as the level of refugee migration, business cycle or strength of radical right parties had no significant relation to the perceived welfare impact.

This article faces several empirical limitations. The wording of the question used as the dependent variable asks respondents to provide their assessments of the impact of immigrants as a whole. However, one might expect assessments to differ for different categories of immigrants, such as labour migrants and asylum seekers. Moreover, these views about immigrants may be sensitive to framing and elite cues. Media portrayals of African Americans have been shown to contribute to an image of African Americans as being disproportionately poor and having a poor work ethic (Gilens, 1999). Existing comparative research on the topic has used a comparable approach to that of the present study, relying on

manifestos to measure discursive differences (Schmidt and Spies, 2014). However, a more suitable approach may be to examine cross-country differences in media coverage to analyse the salience and framing of the issue of welfare use by migrants. While this data is more complex to assemble systematically, this would certainly be a promising avenue for future research.

Supplementary material

To view supplementary material for this article, please visit https://doi.org/10. 1017/S0047279422000447

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Competing interests

The author(s) declare none.

Notes

1 Instead, prejudice, tolerance and general sympathy towards out-groups appear to be rooted in childhood socialization and education (Adorno *et al.*, 1950; Ford, 2008; Kinder and Kam, 2010, 67).

2 The households vary in the number of children, whether it concerns a single person or a couple, the length of unemployment and the previous and current income of a single person or couple. I exclude the minimum wage as an option for current or previous income as several countries under study do not have minimum wages. I take a similar approach for social assistance.

3 I operationalize migrant with a dummy variable, coded 1 if the respondent in question was born outside of the country or does not have citizenship in their country of residence. I construct two indicators. The first indicator relates to receiving social protection of any kind (e.g. housing, family allowances, unemployment insurance etc.). The second indicator captures whether the respondent receives non-contributory benefits. To get a measure of usage, I estimate probit regressions with these two indicators as dependent variable.

4 This approach builds on Burgoon (2014).

5 The three variables ask respondents if they favour allowing: 1) immigrants from poorer countries outside Europe; 2) immigrants from races or ethnicity different from majority's, and 3) immigrants of the same race and ethnicity as the majority population. All three variables are ordinal (allowing many = 1, allow some = 2, allow a few = 3 and none = 4).

6 Though there appear to be considerable differences depending on the immigrants' background. EU migrants, for example, tend to have a positive fiscal effect.

7 A concern about a lack of reciprocity is an important factor that explains why immigrants are considered less deserving of benefits (van Oorschot, 2006). This is not merely a function

of previous contributions, but especially for immigrants potential future contributions shape deservingness, something likened to social investment (Heuer and Zimmermann, 2020). Concern over reciprocity is operationalized as a dummy variable using a question that asks respondents about their preferred condition for granting immigrants access to the welfare state (1 = paid taxes for a year to get access to social protection). I opt for these two conditions as they signal past contributions and potential future contributions. Moral hazard is constructed by combining three Likert-scale questions measuring agreement with statements that ask whether the respondent believes the welfare state makes people (1) lazier, (2) less willing to look after themselves and family, and (3) less willing to look after each other. The Cronbach's Alpha for these three questions was 0.85.

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